A Panorama of Linguistic Landscape Studies

Full details of all our publications can be found on https://www.multilingual-matters.com or by writing to Multilingual Matters, St Nicholas House, 31-34 High Street, Bristol, BS1 2AW, UK.

A Panorama of Linguistic Landscape Studies

Durk Gorter and Jasone Cenoz

MULTILINGUAL MATTERS
Bristol • Jackson

DOI https://doi.org/10.21832/GORTER7144
Library of Congress Cataloging in Publication Data
A catalog record for this book is available from the Library of Congress.
Names: Gorter, D. (Durk), author. | Cenoz, Jasone, author.
Title: A Panorama of Linguistic Landscape Studies/Durk Gorter and Jasone Cenoz.
Description: Bristol; Jackson: Multilingual Matters, 2023. | Includes bibliographical references and index. | Summary: “This book provides an overview of how the field of Linguistic Landscape Studies has emerged and developed over the past 20 years, combined with an in-depth exploration of the theoretical approaches, innovative research methods and major themes that have been central to this dynamic area of research”—Provided by publisher.
Identifiers: LCCN 2023017419 (print) | LCCN 2023017420 (ebook) | ISBN 9781800417144 (hardback) | ISBN 9781800417137 (paperback) | ISBN 9781800417168 (epub) | ISBN 9781800417151 (pdf)
Subjects: LCSH: Linguistic landscape. | Signs and signboards—Semiotics.
Classification: LCC P40.5.P53 G67 2023 (print) | LCC P40.5.P53 (ebook) | DDC 306.44—dc23/eng/20230630
LC record available at https://lccn.loc.gov/2023017419
LC ebook record available at https://lccn.loc.gov/2023017420

British Library Cataloguing in Publication Data
A catalogue entry for this book is available from the British Library.

ISBN-13: 978-1-80041-714-4 (hbk)
ISBN-13: 978-1-80041-713-7 (pbk)
ISBN-13: 978-1-80041-715-1 (pdf)
ISBN-13: 978-1-80041-716-8 (epub)

Open Access

Except where otherwise noted, this work is licensed under the Creative Commons Attribution-NoDerivatives 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nd/4.0/ or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

Multilingual Matters
UK: St Nicholas House, 31-34 High Street, Bristol, BS1 2AW, UK.
USA: Ingram, Jackson, TN, USA.

Website: https://www.multilingual-matters.com
Twitter: Multi_Ling_Mat
Facebook: https://www.facebook.com/multilingualmatters
Blog: https://www.channelviewpublications.wordpress.com

Copyright © 2024 Durk Gorter and Jasone Cenoz.

All rights reserved. No part of this work may be reproduced in any form or by any means without permission in writing from the publisher.

The policy of Multilingual Matters/Channel View Publications is to use papers that are natural, renewable and recyclable products, made from wood grown in sustainable forests. In the manufacturing process of our books, and to further support our policy, preference is given to printers that have FSC and PEFC Chain of Custody certification. The FSC and/or PEFC logos will appear on those books where full certification has been granted to the printer concerned.

Typeset by Deanta Global Publishing Services, Chennai, India

Contents

Figures ix
Preface xiii

1 Introduction: Captivating Studies of Language in Public Spaces 1
1.1 Introduction 1
1.2 Definitions, First Use and Scope 2
1.3 Expansion of the Field 9
1.4 Linguistic Landscape or Semiotic Landscape 14
1.5 Landscape 18
1.6 Concluding Remarks 21
1.7 Overview of the Book 23

2 History: Early Stages of an Emerging Field 26
2.1 Introduction 26
2.2 The Seeds of a New Field in the Late 20th Century 27
2.3 The Establishment of a Proper Field 40
2.4 Growing Momentum 46
2.5 Concluding Remarks 53

3 Theoretical Approaches: A Range of Perspectives 56
3.1 Introduction 56
3.2 Ethnolinguistic Vitality 58
3.3 Some Sociological Concepts 60
3.4 Frame Analysis 62
3.5 Geosemiotics 65
3.6 Theorizing Space 68
3.7 Pragmatics 71
3.8 Contact Linguistics and Language Variation Studies 72
3.9 History as a Disciplinary Lens 74
3.10 Other Disciplinary Perspectives: Economics, Cultural Geography and Policy Sciences 77
3.11 Toward a Comprehensive Model: MIPS 80
3.12 Concluding Remarks 88

4 Research Methods: Quantitative and Qualitative Approaches 90
4.1 Introduction 90
4.2 Quantitative Approaches 93
4.3 Qualitative Approaches 104
4.4 Mixed Methods: Combining Quantitative and Qualitative Research 109
4.5 Unresolved Issues: Unit of Analysis and Survey Area 113
4.6 Concluding Remarks 126

5 Photography and Other Distinctive Research Methods 129
5.1 Introduction 129
5.2 The Photographer-Researcher 130
5.3 Photographs as Data 134
5.4 Photographs in Publications 135
5.5 Video Recording 139
5.6 Walking Interviews 142
5.7 Geographic Maps 145
5.8 Text Extraction and Corpus Analysis 147
5.9 Eye Tracking 148
5.10 Concluding Remarks 151

6 Multilingualism is All Around Us 153
6.1 Introduction 153
6.2 The Multilingual Turn 154
6.3 Typologies of Multilingual Signage 161
6.4 Our Investigations on Multilingualism in Donostia-San Sebastián 170
6.5 Concluding Remarks 173

7 The Visibility of Minority Languages 174
7.1 Introduction 174
7.2 Minority Language Research in General 176
7.3 Public Presence and Visibility as a Key Factor for Minority Languages 180
7.4 A Comparison of the Presence and Visibility of Minority Languages 184
7.5 Chinatowns 205
7.6 Commodification and Tokenism 218
7.7 Concluding Remarks 221

8 The Influence of Language Policies 224
8.1 Introduction 224
8.2 Language Policy and Planning Research 225
8.3 Two Illustrative Cases: Canada–Quebec and Belgium–Brussels 231
8.4 Upgrading the Status of Basque in the Basque Country 235
8.5 Changes in Linguistic Landscapes in Post-Soviet States 239

8.6 Language Policies and Display Practices in Various Other Contexts 245
8.7 Concluding Remarks 249

9 English Can Be Seen Everywhere 252
9.1 Introduction 252
9.2 Our Lens on English and Linguistic Landscape Studies 253
9.3 English in Traditional Inner Circle Countries 256
9.4 English and Other Languages in Outer Circle Countries in Asia and Africa 264
9.5 The Display of English in the Expanding Circle 291
9.6 Concluding Remarks 307

10 Educational Contexts 310
10.1 Introduction 310
10.2 Linguistic Landscapes as a Pedagogical Tool 311
10.3 Schoolscapes 336
10.4 Concluding Remarks 354

11 What's In the Names? 357
11.1 Introduction 357
11.2 Attributing Names to Languages 358
11.3 Modernity and Tradition in Names 360
11.4 Social Change through Place Names and Street Names 364
11.5 Concluding Remarks 367

12 Expanding the Field of View 369
12.1 Introduction 369
12.2 A Young Field 370
12.3 Expansion of the Range of Topics 373
12.4 A Forward Outlook 388
12.5 Final Views 395

References 398
Index 448

Figures

Preface

Figure 0.1 Fedex truck xiv

Chapter 1 Introduction: Captivating Studies of Language in Public Spaces

Figure 1.1 COVID-19 sign 2
Figure 1.2 Abundance of signage in Times Square in New York City 7
Figure 1.3 Graph of the exponential growth of the field 10
Figure 1.4 Signpost in Donostia-San Sebastián 13
Figure 1.5 Multilingual sign in tourist area in Mallorca 23

Chapter 2 History: Early Stages of an Emerging Field

Figure 2.1 Multiliteracy at Jaffa Gate in Jerusalem 29
Figure 2.2 Street signs Ha-Malakh RD. and El-Malak RD. in Jerusalem 30
Figure 2.3 Trilingual book festival poster in Brussels 33
Figure 2.4 Bilingual French–English sign in Montreal 35
Figure 2.5 Japanese restaurant Kome Kome in Barcelona 38
Figure 2.6 Street crossing in Shinjuku, Tokyo 39
Figure 2.7 People with handheld screens 49

Chapter 3 Theoretical Approaches: A Range of Perspectives

Figure 3.1 Sign with longest place name in Wales 63
Figure 3.2 Worker putting up a new street sign 66
Figure 3.3 Heterotopia in Venice 70
Figure 3.4 Garibaldi Square in Naples 76
Figure 3.5 Multilingual inequality in public spaces (MIPS) (a model of linguistic landscapes with five interlocking and cyclical components) 81

Chapter 4 Research Methods: Quantitative and Qualitative Approaches

Figure 4.1	Three shop signs: Chinese dominant, English dominant and Chinese only (Hong Kong)	98
Figure 4.2	Basque-Spanish sign in Donostia-San Sebastián	101
Figure 4.3	Rabot, the superdiverse neighborhood in Ghent	107
Figure 4.4	Sign in Ülemiste shopping mall near the airport (Tallinn)	111
Figure 4.5	LOVE sign: illustrating problems mentioned in Savela (2018)	114
Figure 4.6	Moving signs on trolleybus (Budapest)	117
Figure 4.7	Train station exit in Tokyo	118
Figure 4.8	Two streets in Donostia-San Sebastián and Leeuwarden-Ljouwert	119
Figure 4.9	Chinatown arch (Vancouver)	124
Figure 4.10	Our location in Google Street View (screenshot) http://goo.gl/maps/Oppec	125

Chapter 5 Photography and Other Distinctive Research Methods

Figure 5.1	Cropping sign in three ways (Auckland)	131
Figure 5.2	Jewelry shop in Cardiff	132
Figure 5.3	Effect of context: close-up and further away	133
Figure 5.4	Twice the same sign: an obvious defect	135
Figure 5.5	Reflection of the photographer	136
Figure 5.6	Double-decker bus in Hong Kong (similar to the type used by Lou)	140

Chapter 6 Multilingualism is All Around Us

Figure 6.1	Importance of multimodality, materiality and emplacement (Montreal)	161
Figure 6.2	'On the go': mimicry in banner, with Greek (Athens)	166
Figure 6.3	Two types of store signs in Brooklyn, New York	168
Figure 6.4	Basque-Spanish street signs with changes (before and after)	171

Chapter 7 The Visibility of Minority Languages

Figure 7.1	Wooden mural with 91 languages in Europe, plus legend with language names	178
Figure 7.2	Shop sign in Raval neighborhood, Barcelona	189
Figure 7.3	Bilingual traffic sign with Irish on top	194
Figure 7.4	Sign in Frisian, Leeuwarden-Ljouwert	197
Figure 7.5	Italian–Slovenian sign in shop window (Trieste)	199
Figure 7.6	Dutch and Chinese street sign in Zeedijk, Amsterdam	209

Figure 7.7 Shops signs in Chinese from the Rome study 210
Figure 7.8 Chinese–Vietnamese restaurant in Melbourne 212

Chapter 8 The Influence of Language Policies

Figure 8.1 Point Zero advertisement in Montreal 232
Figure 8.2 Seeming chaotic English, Dutch and French signs in Brussels 234
Figure 8.3 Language promotion campaign: 'hemen ere euskaraz' (here also Basque) 237
Figure 8.4 Distribution of Basque on signs in five neighborhoods in Donostia-San Sebastián 239
Figure 8.5 Shop front in Hanoi following the language policy 248
Figure 8.6 Bilingual sign in Dubai, with Arabic on top and high visibility of English 249

Chapter 9 English Can Be Seen Everywhere

Figure 9.1 'Typical' English street (York) 258
Figure 9.2 English–Spanish sign (with error) in New York 260
Figure 9.3 Sign with word in Halkomelem, a First Nation language (Vancouver Island) 262
Figure 9.4 Sign with Māori in small font below (Auckland) 263
Figure 9.5 Billboard with 'English the power' (India) 267
Figure 9.6 Trilingual sign in Bandar Seri Begawan, Brunei 271
Figure 9.7 Signpost in Little India, Singapore 272
Figure 9.8 Extraordinary number of signs in Hong Kong 274
Figure 9.9 International Finance Center, Hong Kong 276
Figure 9.10 Trilingual sign in Macao 278
Figure 9.11 'No socks, no panties' shop in Berlin 294
Figure 9.12 Bookshop near Majorstua in Oslo 297
Figure 9.13 Food hall sign in Shanghai 300

Chapter 10 Educational Contexts

Figure 10.1 Front of Coca-Cola machine 315
Figure 10.2 Sign of Asian restaurant in Aveiro, Portugal 326
Figure 10.3 Pre-given signs as a collage 329
Figure 10.4 Ha'apala monument (detail), Tel Aviv: bilingualism Hebrew–English 332
Figure 10.5 Liburudenda - Bookstore 334
Figure 10.6 Txirrinda leku - Bike place 344
Figure 10.7 Rules of behavior 344
Figure 10.8 English phrases 345
Figure 10.9 We all need to be friends 346
Figure 10.10 Ongi etorri' ("welcome") 346

Figure 10.11 'We need Basque, Basque needs you' 347
Figure 10.12 Korrika mural 348
Figure 10.13 Viaje con monitor 348
Figure 10.14 Decorative tree 349

Chapter 11 What's In the Names?

Figure 11.1 Diesel sign 359
Figure 11.2 Prominence of English and practical information in Greek (Athens) 361
Figure 11.3 Arrasate kalea in Donostia 365
Figure 11.4 El Antiguo: contested sign 365

Chapter 12 Expanding the Field of View

Figure 12.1 Column on Pheasant Island (from a distance) 375
Figure 12.2 Gentrification in Phnom Penh, with Khmer and English 381
Figure 12.3 YO/OY sculpture in Brooklyn, New York 382
Figure 12.4 Welcome sign in 23 languages and various scripts (Agrodome, Rotorua New Zealand) 386
Figure 12.5 Standardized (left) and non-standard sign (right), Istiklal Street, Istanbul (March 2009) 392
Figure 12.6 ZARA shops in New York, Suzhou, Limoges, Liverpool, Ho Chi Min city, Ljubljana and Shanghai 393

Preface

'I really liked the experience of working on the linguistic landscape... now I cannot stop looking at the signs'. Obviously, the master's student who wrote this sentence was captivated by the signage in the local environment. The student carried out an assignment to study the signs in the streets of Donostia-San Sebastián, the Basque Country. We have carried out most of our research projects in this city. We want to share in this book how we became attracted to the study of public signage, how we developed our linguistic landscape studies and how our fascination has lasted until today.

It has all happened so fast. In 2002, when we started our research on the display of language on public signage there were only a few scattered publications on the topic. It did not seem to be of much interest to researchers in applied linguistics or sociolinguistics. Today, linguistic landscape studies are a well-established field that has attracted researchers from a wide range of disciplinary backgrounds. In this book, we want to present an overview of the main developments and address several important issues that have been investigated. A great deal of progress has been made in the past years and it is the right time to paint a view of the studies that have been carried out. It is not easy to write a book that presents a full view of the broad scope of the numerous investigations in rather diverse locations all across the world.

When arriving in a new city, public signs are usually the first contact with the languages of the new place. Signs can have different languages, shapes and functions. They can be seen all around and can provide a connection to a place. Signs can tell the names of streets, institutions, shops and brands. Moreover, signs can inform in which direction to go, or what is or is not allowed. Most signs are advertisements that offer a product or a service. Urban public spaces, in particular the central shopping areas, are full of commercial signs, but also display a great quantity of wayfinding, warning and information signs. The signs are usually written in languages that passersby can understand in order to get the messages across. Other signs can be in a language that is difficult to understand, even exotic or obscure, and such signs may be liked or

disliked for different reasons related to attitudes, beliefs and ideologies. Presenting a photograph of a Fedex truck (see the figure) makes it possible to create awareness that signage often contains more than what superficially meets the eye.

We have asked our students or audience in a general presentation: do you see the arrow? Once people are shown that there is an arrow between the E and the X, it is difficult to no longer see it. When walking, riding or driving through urban environments, signs are an important part of the textual décor. In these visual times, signs are multimodal messages where written texts are but one dimension.

During the COVID-19 pandemic, signage changed overnight and many signs were pointing to a new danger that was present in public spaces. During lockdowns the public spaces were off limits, but at the same time people had a great desire to meet in those public spaces. The plan for this book existed for some time, but it was only during the strict lockdown as a consequence of the COVID-19 pandemic that we started to work on its design and could write the first texts. Due to (too many) other commitments and duties, the completion of the manuscript has taken some time.

Over the years, we have proposed a number concepts and frameworks to provide relevant insights in the study of the linguistic landscape. For example, we were inspired by studies of second language acquisition (SLA) to analyze informal language learning based on public signs (Cenoz & Gorter, 2008) and we applied an economic approach to signage with a model of total economic value (Cenoz & Gorter, 2009). We also developed a taxonomy of functions of signs in schoolscapes (Gorter & Cenoz, 2015a). In another paper, we asked how translanguaging can be a relevant

Figure 0.1 Fedex truck

concept to study public signs (Gorter & Cenoz, 2015b). Recently, we have proposed a holistic model of language inequality in public spaces (MIPS) (Gorter & Cenoz, 2021). These ideas will be summarized in more detail in the following chapters and placed next to studies by other researchers who have carried out related studies or who went in different directions.

Photographs are a crucial part of most linguistic landscapes studies. In a panorama photograph frames are stitched together into one combined image giving an ultra-wide perspective on a scene. A panorama contains a wider view than a landscape although not everything is captured because you look straight with the camera. This is different from a 360° image in which every single point in every possible direction is captured inside a sphere. We conceive of our book as a panoramic view of the field of studies of linguistic landscapes.

In some ways, our book can also be compared to the panoramic paintings that were popular to represent a landscape or a historical event in the 19th century. Those large-scale installations in the shape of a great circle of over 100 meters in circumference were intended to reveal a wide, all-encompassing view. Obviously, the scene depicted was one moment frozen in time, could only contain a selection of its subject and present one perspective. Our book similarly tries to present a comprehensive overview, and we are aware that we had to make selections among the flood of publications and then take decisions about what to 'paint' and what to leave out. In the different chapters, we have tried to focus our lens on themes that have received substantial attention in linguistic landscape studies. Our outline includes the development of the field, and a broad range of theories and methods, including photography as a method. Other chapters are on multilingualism, minority languages, English, education and names, all themes that many researchers have dealt with and we have included in our own research as well. We conclude the book with a chapter on possible future developments.

The aim of those large-scale panorama paintings was to make the visitor believe that they were immersed in a real landscape. Likewise, our aim is to get our readers acquainted with the broad spectrum of the field where some issues will be enlarged, others receive passing attention and still others left out. What we have tried to write in these pages is a panorama, in the sense of a survey of interesting work accomplished by other researchers and partly based on the research we have carried out ourselves. As researchers, we have actively taken part in the development of the field which adds to the challenge of presenting a panorama. We had to be selective but have tried to depict a view of the whole field that surrounds us as interested participant-observers. All photographs in the book are by the authors.

Durk Gorter and Jasone Cenoz
Donostia-San Sebastián

1 Introduction: Captivating Studies of Language in Public Spaces

1.1 Introduction

Over the last couple of decades, the study of linguistic landscape has established itself as an attractive and exciting field of research. In this book, we want to present a panorama of this ever-expanding field, based to some extent on our own studies and publications. Today, there are more signs in public spaces than ever before and visual information is more and more dominant. In shopping streets and commercial and industrial areas, we find the highest density of signs with an abundant visual display of texts, symbols and images. In addition, the sides of roads, in particular on highways near urban areas, can have large numbers of signs. Almost all of those signs show some form of language. Language is on display all around us, often in textual form on shops, advertisements, posters, notices, warnings, street name signs, etc. This aggregate of signage is the outcome of developments over the years, where new signs are being put up all the time and old ones are being taken down, turning linguistic landscapes into a dynamic whole.

The coronavirus pandemic (COVID-19), however, has made it clear how sudden changes can take place in linguistic landscapes. During the strict lockdowns in various places, signage lost most of its relevance because almost no one was looking at the signs. Soon after, almost overnight, shopping streets and other public spaces around the world were transformed and a great number of new signs related to the pandemic were on display. For example, signs warning about social distancing, giving instructions on the use of hand sanitizers, indicating an obligation to wear a mask, presenting QR codes for scanning menus or home delivery and handwritten signs offering different types of support. The changes created opportunities for innovative linguistic landscape studies and several researchers have published work about the new meanings they found in the signs (Hopkyns & Van der Hoven, 2022; Hua, 2020; Kusse, 2021; Marshall, 2021; Ogiermann & Bella, 2021; Svennevig, 2021). A dedicated website on the linguistic landscape of COVID-19 presents a series of blog posts (https://www.covidsigns.net/), and the website Language on the Move has various articles on COVID-19 (https://www.languageonthemove.com/tag/linguistic-landscape/) (Figure 1.1).

Figure 1.1 COVID-19 sign

The study of linguistic landscapes is one of the most dynamic and fastest-growing fields in applied linguistics and sociolinguistics. An increasing number of researchers analyze language on signs in public spaces, mainly in urban contexts. In the 1970s and 1980s, there were some forerunners, but only after Landry and Bourhis (1997) presented their insightful reflections on the concept of linguistic landscape, some years later a group of researchers began to study language signs in their own right (see Chapter 2). In this chapter, we first discuss some definitions of the term linguistic landscape and the scope of the field (Section 1.2). We then look into the expansion of the field (Section 1.3) and the use of the labels linguistic and semiotic landscape (Section 1.4). We also briefly reflect on landscape as a concept (Section 1.5) and we include some concluding remarks (Section 1.6). The chapter ends with an overview of the book (Section 1.7).

1.2 Definitions, First Use and Scope

The term *linguistic landscape* deserves a bit of effort at giving a definition. Providing a comprehensive definition is, however, not all that easy, and we shall supply a number of possibilities that have been suggested

in the literature. The field lacks clear-cut boundaries, and each definition usually presents a possible delimitation. This circumstance may be slightly discomforting for some readers, but this will be encountered in many other research fields as well because, after all, a field is usually an assembly of theories, methods, research problems, premises and topics, and efforts to define a field exhaustively are seldom entirely adequate.

In their seminal article, Landry and Bourhis (1997: 23) proposed the following shorthand definition to refer to the linguistic landscape: 'the visibility and salience of languages on public and commercial signs in a given territory or region'. In the same article, the authors also provided a longer definition which was made up of a list of six common items in public spaces: 'The language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings combines to form the linguistic landscape of a given territory, region, or urban agglomeration' (Landry & Bourhis, 1997: 25).

This appealing definition has become by far the most widely quoted in the literature, leading Bruyèl-Olmedo and Juan-Garau (2009) to go so far as to claim that most papers on linguistic landscape quote this definition, while Zabrodskaja (2010) and Amos (2016), in two book reviews, have spoken out against the overuse of this definition, although fact-checking their claims showed that the actual numbers were not so high (Gorter, 2019a). Interestingly, Blackwood (2016: 647), also in a book review, has argued that 'the discipline has now matured such that the very frequent citing of their seminal work [Landry & Bourhis] as a baseline should be avoided'.

1.2.1 An excursion into 'first use'

The effect of the success of this definition by Landry and Bourhis (1997) has been that several authors refer to them for the 'first use' of the term linguistic landscape, but as we will show this is not entirely correct. First times have something special that make them important because they can mark the beginning of a new field such as linguistic landscape studies. Unsurprisingly, many publications make reference to the 'first' occurrence of linguistic landscape. In the ever-growing literature, we can find many quotes similar to those in Box 1.1.

BOX 1.1 EXAMPLES OF QUOTES CONTAINING FIRST USE OF THE TERM LINGUISTIC LANDSCAPE

- 'The linguistic landscape is a relatively new subject of research. This concept was *first* defined by the Canadian researchers Landry & Bourhis (1997: 25)' (Edelman, 2006: 1).

- 'The term "linguistic landscape" appears to have been *first* used by Landry and Bourhis (1997)' (Spolsky, 2009a: 26).
- 'The concept of "linguistic landscape" was *coined* by Landry and Bourhis (1997)' (Juffermans, 2012: 260).
- '*Originally* employed in an article by Landry and Bourhis (1997), the expression "linguistic landscape"...' (Zabrodskaja & Milani, 2014: 1).
- 'The study of linguistic landscape (LL), a term *first* coined by Landry and Bourhis (1997)' (Nikolaou, 2017: 161).
- 'The term linguistic landscape was *firstly* introduced by Landry and Bourhis (1997)' (Fakhiroh & Rohmah, 2018: 96).
- 'The term linguistic landscape (...) was *first* introduced to linguistics by Landry and Bourhis in 1997' (Strandberg, 2020: 2).
- 'As a landmark study of "Linguistic Landscape", Landry and Bourhis (1997) *first* defined the term as... [etc.]' (Sheng & Buchanan, 2022: 1).

(emphasis added)
Note: This list only contains one example per two or three years, but without much effort the list could have more than one similar quote from each year and could easily be much longer.

All the quotes in Box 1.1 somehow seem to agree that Landry and Bourhis (1997) were the *first* to use or introduce the term linguistic landscape. But were they really? Have these authors checked or are they perhaps parroting each other? This excursion into the first use of the term linguistic landscape will demonstrate that it is not as obvious as the quotes in Box 1.1 seem to suggest. An interesting source is Backhaus (2007: 54), who explains that 'some pioneer linguistic landscape studies had been conducted decades before Landry and Bourhis in 1997 finally "invented" the discipline by providing it with a proper name'. This quote could be read as the use of the name for the first time, in English, because the earlier studies that Backhaus points to do use the terms *gengo keikan* in Japanese or *paysage linguistique* in French. One wonders, is it acceptable to see the translation of an existing term into English as the first use of the term, or as inventing a whole new discipline?

After closely reading the original article by Landry and Bourhis (1997), we can look at what the authors said. This quote in their text is important: 'It is in the language planning field that issues in relation to *the notion of linguistic landscape first emerged*' (emphasis added) (Landry & Bourhis, 1997: 24). Notice the word first, and hence its importance, which acknowledges that the notion existed before. On the same page, the authors also remark 'it is to this Belgian case that we owe the

origin of the concept of linguistic landscape'. The authors refer to a study by Verdoodt (1979) on Belgium and by Corbeil (1980) on Canada, but both those publications are in French and the words 'linguistic landscape' obviously are not used, so if not the precise words, at least the notion originated before 1997 according to the authors themselves. Monnier (1989) used the words *paysage linguistique* and *visage linguistique* in his study of the signage of Montreal, whereas he had only used *visage français* in a similar study three years earlier (Monnier, 1986). Interestingly, early studies into the public use of Catalan also mention the words *paisatge lingüistic* (linguistic landscape) (Solé & Romaní, 1997: 58; see Chapter 2).

Aware of the importance of the name of the field, Spolsky (2020) remembers that he used the term 'public signs' in his earliest studies (Spolsky & Cooper, 1991). He then states 'it was Landry and Bourhis (1997) who first applied the term "linguistic landscape" (in French, *paysage linguistique*) to the public signs of a neighborhood' (Spolsky, 2020: 4). However, Spolsky also indicated that some others had used the term linguistic landscape 'for all the language practices of a community, spoken and written', and he points to Voegelin (1933) as the earliest user. However, the idea that Landry and Bourhis were the first to refer to the public display of language as linguistic landscape is incorrect in the literal sense. Puzey (2016: 403, footnote 4) referred to a source that predates Landry and Bourhis by 35 years stating that 'one significant early use of the term "linguistic landscaping" was… the practice of bestowing aesthetically pleasing names on homes (Lowenthal, 1962)'. Perhaps this whole issue of first use is, in the end, not worth much more than this excursion, but, as our curiosity was piqued, we have tried to trace down the earliest published use of the expression linguistic landscape. Thanks to Google Scholar, we found the words in the magazine *Forest and Stream* published in 1896, thus pre-dating the Landry and Bourhis article by more than 100 years. The expression is included in an article that provides a vivid description of a debate about Waldo Lake in the Cascade Mountains, Oregon, where linguistic landscape refers to a metaphor for a heated debate (Greene, 1896). Perhaps this fact-finding excursion can put an end to the spread of the idea about the first use of the term linguistic landscape and help to debunk this emergent myth in the field of linguistic landscape studies.

1.2.2 Other definitions, labels and scope

The much quoted definition by Landry and Bourhis (1997) could easily be further expanded by adding other types of signs to their list of items, such as posters, stickers, sidewalk sandwich boards, neon lights, foam boards, scrolling banners and inflatable signs. Other newly created sign types could also be added based on recent technological developments,

including electronic flat-panel displays, LED signs, video walls and touch screens. One might be inclined to conclude that a linguistic landscape is just a collection of different types of signs or, said differently, that it includes all language items that are visible in public space; or, in yet other words, any visual display of textual language.

Other authors define linguistic landscape with slightly different formulations. For example, Lou (2016a: 2) formulates it as follows, 'Linguistic landscape consists of all visual forms of language present in the public space of a pre-determined geographic area'. With a slightly different emphasis on choices, Matras *et al.* (2018: 53) define linguistic landscape as 'the configuration of language choices on public signage in multilingual settings'. Presenting a more sociological definition, Ben-Rafael and Ben-Rafael (2019: 7) refer to 'the symbolic construction of the public space by means of linguistic codes'. A link to discourse is created by Kramsch (2014: 242), who defines linguistic landscapes as 'discourse in action, multimodal discourse, shaping our environment through signs that cry out in different languages'. Using a more abstract formulation, Malinowski and Dubreil (2019: 1) refer to linguistic landscape as 'the geospatially situated domain of material texts and textual practices in public space'. Some years ago, we defined the study of linguistic landscapes simply as a concern with 'the use of language in its written form in the public sphere' (Gorter, 2006a: 2). This definition is pretty much as good or as bad as other definitions we have found in the literature.

Various authors have proposed some original and innovative shorthand labels to refer to this general idea of linguistic landscape using different expressive phrases and definitions. Some examples are 'the words on the walls' (Calvet, 1990), 'scriptorial landscape' (Gade, 2003), 'the decorum of the public life' (Ben-Rafael *et al.*, 2006: 10), 'the linguistic items found in the public space' (Shohamy, 2006: 110), 'environmental print' (Huebner, 2006: 31; 2016: 1), 'words on the street' (Foust & Fuggle, 2011) and 'language tapestry on display' (Kasanga, 2012). At one time, the label 'multilingual cityscape' was suggested as an adequate designation (Gorter, 2006b: 83) because most studies have been carried out in urban contexts. In Section 1.2, we discuss the alternative, competing designation 'semiotic landscape'. In this book, we will stick to the label linguistic landscape because this has become the most popular term, it is the most frequently used designation in the literature and it has become the preferred label among researchers. Authors frequently use the shorthand 'LL' for linguistic landscape. We have chosen not to do so in this book, except in direct citations.

It is not an easy task to provide a precise outline of the scope of the field of linguistic landscape studies. To sketch the limits of this emerging field is a challenge because soft boundaries are characteristic. Some years ago, Shohamy and Waksman (2009: 313) rhetorically asked an intriguing question about the scope of the field: 'What can be considered linguistic

landscape?'. In their view, the linguistic landscape has to be conceived of as an ecological arena with fluid and fuzzy borders that also includes oral language, images, objects, placement in time and space, and how people interact with signage. They want to go beyond the written texts on signs because public space is a negotiated and contested arena. Later, Shohamy (2015) argued for a broader definition of the construct of language that serves as a communicative device and cannot be separated from other language dimensions. She expressed this idea in another publication as 'any display in public spaces which communicates varied types of messages' (Shohamy, 2019: 27) and she also pointed to additional components related to multimodality. An up-to-date explanation about the scope of linguistic landscape studies was provided with the launch of the journal *Linguistic Landscape*. In the opening article, its editors Shohamy and Ben-Rafael (2015: 1) argue that the main goal of linguistic landscape studies is 'to describe and identify systematic patterns of the presence and absence of languages in public spaces and to understand the motives, pressures, ideologies, reactions and decision making of people regarding the creation of LL in its varied forms'. This statement covers a wide range of possibilities for all kinds of investigations. Looking back over a decade, Shohamy (2019) observes developments in the definition and scope of linguistic landscape studies due to the expansion beyond written texts. According to her, the boundaries of linguistic landscape research continue to be debated, in particular the question 'Where are the boundaries of the linguistic landscape?'. Some authors do not want to go beyond the written texts in public spaces and they oppose anything outside, because otherwise everything could be a linguistic landscape and this could imply that it loses its explanatory power (Figure 1.2).

Figure 1.2 Abundance of signage in Times Square in New York City

Even when broadening the scope is accepted, it seems that the main concern of researchers on linguistic landscapes has remained the analysis of the display of some sort of visible language on signs in the public sphere. However, it does not refer exclusively to its written form, because multimodal, semiotic, other visual and sometimes oral elements have been included.

With examples from the journals *English Today* and *World Englishes*, we can try to draw some contours as to what we consider to be a linguistic landscape study and what is not. These journals have published several studies that clearly seem to fall inside the scope of the field. We have included several of those studies in the various chapters, in particular in Chapter 9 on the spread of English. However, the journals have also published some studies that are only tangentially related to work on linguistic landscapes. We consider the following articles in *English Today* to fall outside the scope of the field. For example, Jianxiu (1999) provides some musings on the use of English in China, including a mention of shop signs and directions. There is a similar article on English in Japan by Hyde (2002), who deems signs to be useless for learning 'real English'. Another article concerns English in advertising and brand names in Brazil (Friedrich, 2002), while a different article describes a few linguistic characteristics of road signs in English (Rastall, 2003). Baumgardner (2006) writes about English in the world of business in Mexico, which is conceived of as far broader than shop names. Similarly, in *World Englishes* we find a study by Vettorel (2013) on English in Italian advertising. Although it has an element of arbitrariness, we have decided not to include that type of study. We only consider a study to belong to the linguistic landscape field when the focus is primarily on public display of language. Obviously, there is not one 'English', but as we will see in later chapters, many Englishes are used and displayed in different contexts in different countries.

We should further keep in mind that in the academic literature the concept linguistic landscape is competing with other uses of the same term, as was pointed out some years ago (Gorter, 2006a: 1–2). A book, a conference or an article with 'linguistic landscape' in the title is no guarantee of its relevance to the field and this can easily lead to disappointment for expectant readers. Kasanga (2017) made this observation in his review of a book by Hibbert (2016) which contains 'linguistic landscape' in the title, but the book is about languages in South Africa in general. A conference that was announced with the title 'Shifting Linguistic Landscapes' (Werklund University, 2021) included only one paper (by Melo-Pfeifer) that we consider directly related to the field.

It is obvious that the concept has been used in diverging ways with different meanings. Thus, it can frequently refer to a general language situation or to linguistic diversity. In sociolinguistics, the concept describes the situation of languages in countries such as Malta (Sciriha & Vassallo,

2001), Panama (Sanchéz Arias, 2019) and the Baltic States (Kreslins, 2003). During the COVID-19 pandemic, Dunn *et al.* (2020) wanted to understand where the linguistic landscape had changed, but they only measured the number of different languages used in a country based on data from Twitter. As a general expression, linguistic landscape can in such cases be synonymous with 'linguistic market', 'linguistic mosaic', 'ecology of languages', 'diversity of languages' or 'language situation', which all refer to a social context of language use. In other cases, the term obtains a meaning related to the linguistic system, for example therapeutic words (Fleitas, 2003) or the spread of dialects (Labov *et al.*, 1997). Finally, the linguistic landscape can include the description of language history or even degrees of proficiency in languages.

1.3 Expansion of the Field

Academic research into linguistic landscapes is a relatively recent development that has come to blossom in the early 21st century, even though the analysis of signs as such has a long tradition in both semiotics and advertising. The origins of the field can be dated back to the 1970s, but the most significant developments have taken place during the last two decades. In 2006, it was predicted that 'studies of the linguistic landscape can become a major locus of scholarly activity in the coming decade' (Gorter, 2006b: 88). A few years later, the question was posed 'whether the study of linguistic landscape as a separate domain offers a new and unique area of study and a different way of understanding phenomena is still an open and challenging question' (Shohamy & Gorter, 2009a: 2). More than 10 years later, the answer to that question has become unequivocally clear. Linguistic landscape studies have indeed developed into a new and unique field that offers fresh and distinct insights into a plethora of phenomena related to languages in public spaces.

In recent years, the perspective has become an accepted specialization of applied linguistics (Gorter, 2013), sociolinguistics (Van Mensel *et al.*, 2016), language policy studies (Shohamy, 2019) and contact linguistics (Bagna *et al.*, 2021; Bolton *et al.*, 2020). It has also provided fresh insights for the field of onomastics (Puzey, 2016). Blommaert (2013: 4) argued convincingly that work on linguistic landscapes 'can make the whole of sociolinguistics better, more useful, more comprehensive and more persuasive, and to offer some relevant things to other disciplines in addition'. One can conclude that the language we see around us on signs in the public sphere of cities all over the world has become an accepted and valued source of research data in various disciplines and can lead to reflections on some of the central issues.

The number of publications considered as belonging to the field of linguistic landscape studies clearly indicates that the field has risen exponentially. In one chronological table, Backhaus (2007: 56) listed

10 publications from before 1998 and another 20 publications from 1998 to 2006, although he did not include the early Catalan studies (see Section 2.2.4). When about seven years later, Troyer (2014) presented his online bibliography, he counted a total of 287 publications, of which 235 (or 82%) had appeared between 2007 and 2014. As of October 2022, the same online bibliography has more than quadrupled and contains over 1,250 entries. Between 2006 and 2010, approximately 30 new publications appeared per year. This rose to 75 per year between 2011 and 2015, and to 150 in the years from 2016 to 2019, with the number increasing to over 200 articles and chapters in each of the years 2020, 2021 and 2022 (Figure 1.3).

Even if the borders of the field are somewhat diffuse and drawing demarcation lines remains arbitrary, it is possible to count 25 edited books, 17 monographs (including 1 each in Spanish, Italian and Latvian) and 18 special issues of journals. We have to add to those the first eight volumes of the *Linguistic Landscape* journal (2015–2022) with 115 articles, 22 book reviews and 2 commentaries. Teaching about linguistic landscapes is also increasingly part of university courses and, consequently, the linguistic landscape is chosen as an attractive topic for numerous student papers, master theses and PhD theses. This boom in linguistic landscape publications obviously comprises a range of different themes, issues and dimensions. As we will show throughout this book, the field of linguistic landscape studies covers a complex pattern of theoretical approaches, analytical frameworks and research methodologies.

Publications have generated innovative investigations and their results offer fresh perspectives on themes such as multilingualism (Gorter, 2006a), minority languages (Gorter *et al.*, 2012a), the role of English (Bolton, 2012), language policy (Shohamy, 2015), conflict and contestation (Blackwood *et al.*, 2016; Martín Rojo, 2014; Rubdy & Ben Said, 2015), the effects of globalization on world cities (Ben-Rafael

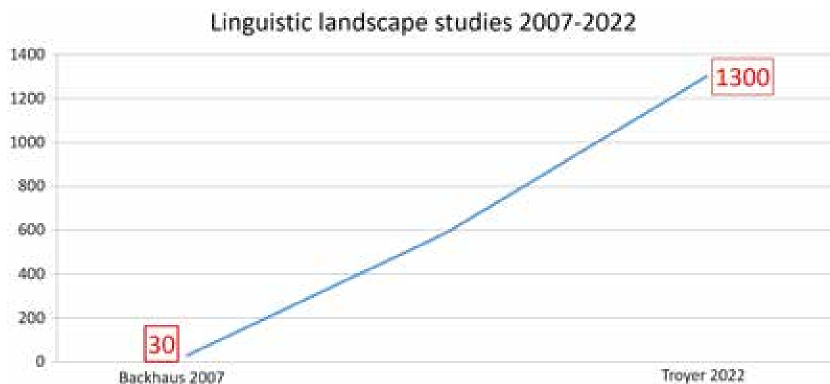

Figure 1.3 Graph of the exponential growth of the field

& Ben-Rafael, 2019), the field of education (Krompák *et al*., 2022; Malinowski *et al*., 2020; Niedt & Seals, 2021), monuments and museums (Blackwood & Macalister, 2019), gentrification (Trinch & Snajdr, 2020), typography (Järlehed & Jaworski, 2015) and creativity (Moriarty & Järlehed, 2019). According to Shohamy and Pennycook (2022), a focus on the material landscape itself, as a semiotic whole, has further expanded the scope of linguistic landscape studies to include skinscapes (Peck & Stroud, 2015) and bikescapes (Pennycook, 2019).

The expansion of the field is shown not only in the rapid increase in the number of publications but also in the geographic spread. A great number of investigations have been carried out on all continents under the umbrella of this interdisciplinary field. One of the major expansions of the field is the opening up to the Global South (Shohamy & Pennycook, 2022). The Zotero-online-bibliography (Troyer, 2022) can attest to the fact that studies are carried out in research sites all around the globe. The research locations vary hugely according to population size or demographic scale. We find studies in metropolitan areas with tens of millions of inhabitants such as Tokyo, New Delhi, Beijing and Shanghai, or large world cities such as Bangkok, Singapore, New York, Barcelona, Paris and Kyiv. Also smaller cities such as Donostia-San Sebastián and Dublin, and small towns such as Leeuwarden-Ljouwert in the Netherlands, Picton in New Zealand or Eupen in Belgium. Even though linguistic landscapes are mainly investigated in urban environments, more rural areas have also been included, such as those in South Africa or villages in the traditional Sámi areas inside the Arctic Circle in Northern Europe or on a 600 kilometers tour in Finland. One obvious reason for having fewer linguistic landscape studies in rural areas is, of course, that there are fewer signs outside towns and villages, in the countryside or in largely uninhabited natural areas. Pure nature in a literal sense, however, is hard to find because just about every spot on earth has traces of human beings who have planted their linguistic marks.

Most linguistic landscape studies are confined to one specific geographic area or level of analysis, which is often a city or town, but it can also be a whole country, a region, a neighborhood or a street. An analysis of one or a few streets is common, to such an extent that this has sometimes been referred to as the 'typical "main street" approach' (Pietikäinen, 2014: 483). Several studies have carried out comparisons between cases at one of these levels of analysis. In Chapter 4, where we discuss research methods, we return to the issue of the selection of a research site, or survey area, and we point to the neighborhood as the most adequate level.

The linguistic landscape can provide information about the use of different languages on signs which can then be compared to language use as reported in surveys, giving further insight into the sociolinguistic context. An analysis of the linguistic landscape may be relevant because

it can demonstrate the differences between the official language policy as reflected in official top-down signs and the impact of such a policy on individuals as reflected in private bottom-up signs. The use of a society's dominant language is expected for official or commercial signs, while other languages are usually not as common. The presence or absence of languages 'sends direct and indirect messages with regard to the centrality versus the marginality of certain languages in society' (Shohamy, 2006: 110). At the same time, the use of several languages in signage can contribute to the linguistic diversity of a society and signs can display the identity of specific social groups. In monolingual contexts, if those still exist, linguistic landscapes are, of course, also important. Some studies took place in a context that at first sight seemed to be predominantly monolingual. For example, in Tokyo, Japanese was clearly the dominant language in the linguistic landscape, but Backhaus (2007: 71) came across no fewer than 14 different languages, including English, Chinese, Korean and Latin.

Several reasons make linguistic landscape studies stand out as suitable for delivering interesting research results. First, these studies choose a broad view on the display of languages in public space, which is, at the same time, wide in scope and not limited in range to the study of one sign type, but tries to be attentive to all kinds of signs. Second, linguistic landscape studies go beyond just studying signs, by investigating who plans, produces and places signs as well as considering who looks at, reads or interacts with the signs. Third, the studies consider how linguistic landscapes reflect language demographics, functions of use, power dynamics, ideologies, histories and policies. Finally, linguistic landscape research includes studies of controlling or influencing what appears on signage with the aim of confirming or contesting existing language practices and hierarchies of prestige.

The study of linguistic landscapes is a multifaceted phenomenon that can be related to a multitude of perspectives and disciplines. Diversity can be seen as a built-in characteristic of a field pushed forward by the curiosity of many researchers from a range of disciplinary backgrounds. Its researchers are trained in, among others, linguistics, sociology, psychology, economics, history, social and urban geography, semiotics, communication studies, media and advertising studies and education. The studies cover a kaleidoscope of topics. The theoretical developments in the field are based on existing theories from other disciplines and specializations (see Chapter 3). The research applies largely existing research methods, although some issues remain unsettled and continue to be debated, such as the unit of analysis and the dynamic nature of signage (see Chapter 4). Photography and other innovative methods have been applied in the field (see Chapter 5). In sum, taking these developments together has led to the establishment of a prospering field.

Linguistic landscape studies have most often taken place in societies that are bilingual or multilingual because those studies can be more

revealing when they deal with multilingualism, variation and the conflict and contact of languages. Today, it is exceptional to find monolingual linguistic landscapes anywhere because English has spread massively to non-English-speaking countries while, at the same time, foreign brand names, shop names and slogans have spread to English-speaking countries.

The developments illustrate a young and heterogeneous field; however, taken together, it constitutes a recognizable body of work with a focus on the visual representation of language in the broad sense. The numerous linguistic landscape studies have provided new and additional perspectives on the relation between language and society. The focus of linguistic landscape studies is on today's urban areas, places where we find linguistically rich and visually stimulating surroundings, due to, among others, processes of globalization and technological change.

Obviously, covering this entire field is challenging and it is near impossible to provide a complete overview. Therefore, in this book we present our own panoramic view of this blooming field, with our emphasis, experiences and interests and, in part, based on our own empirical research work. Unavoidably, this implies that some parts of the field will receive less attention than others. Our investigations into the multilingual cityscape of Donostia-San Sebastián will be used throughout this book to illustrate developments (Figure 1.4).

The city of Donostia-San Sebastián is located on the southern coast of the Bay of Biscay and the border with France is only 20 kilometers away. Although a relatively small city with 186,000 inhabitants, its metropolitan area contains close to half a million people. The city has a

Figure 1.4 Signpost in Donostia-San Sebastián

cosmopolitan look and is a popular tourist destination. It is one of the most important urban centers of the Basque Country, the region straddling the border between Spain and France. The linguistic landscape of the city has gone through a major transformation over the past 40 years, as has the rest of the region. Public spaces have evolved into complex multilingual assemblages. During the Franco dictatorship (1939–1975), the region had a predominantly monolingual Spanish decor, but after the *transición* (transition) to democracy in the late 1970s, the regional minority language Basque received strong support from the regional government. An important aim of the language policies at the regional and local levels is to increase the use of Basque and this includes the visibility of the minority language on public signage. Donostia-San Sebastián, of course, is only one among many cities where interesting linguistic landscape studies have taken place, and relevant examples from several other cities will be provided throughout the book.

Overall, there is growing academic interest in applied linguistics, sociolinguistics and several other disciplines on issues surrounding multilingualism, multiculturalism, multimodality and diversity, and this increased general interest is also reflected in the studies of the visible display of languages in public spaces.

1.4 Linguistic Landscape or Semiotic Landscape

A student or a researcher new to the field may observe that while most authors seem to use the label 'linguistic landscape', some others apparently prefer 'semiotic landscape' and thus they may ask 'What is the preferred designation of this field?'. Currently, the label 'linguistic landscape' is the most frequently used to identify the field of studies, although 'semiotic landscape' is a strong contender. This circumstance could easily give the impression that a lack of one clear label is an indicator of attempts to find the most adequate expression or of a struggle between different schools of thought. So, what is the difference, if any?

Jaworski and Thurlow (2010: 2) deliberately choose not to use the term linguistic landscape unlike others before them, preferring the label 'semiotic landscape' instead. Some years earlier, Kress and Van Leeuwen (1996: 35) had already referred to semiotic landscape as 'the place of visual communication in a given society' in terms of 'the range of forms or modes of public communication available' and also 'its uses and valuations'. In line with these ideas, the aim of Jaworski and Thurlow is to emphasize how written discourse interacts with 'visual images, nonverbal communication, architecture and the build environment'. As indicated by the subtitle of their book, their focus is on the three elements of language, image and space. For them, space and image are as important as language, and semiotic captures all three. They define semiotic landscape as 'any public space with visible inscription made through deliberate

human intervention and meaning making' (Jaworski & Thurlow, 2010: 2). Moore (2019b: 3) assumes that the motivation for a new term by Jaworski and Thurlow (2010) is that 'in our modern multimedia world social space is used as a semiotic resource in which language and space interact very closely'.

Interestingly, in their edited book, Jaworski and Thurlow themselves also use the term linguistic landscape, as do most of the other authors contributing to the book. Today, there are authors in the field who prefer or even insist on using semiotic landscape (e.g. Järlehed, 2015; O'Connor & Zentz, 2016; Stroud & Jegels, 2014), but there are also others who use the two terms interchangeably (e.g. Izadi & Pavaresh, 2016; Schmitz, 2018). In a footnote, Lüdi (2012: 88) explains that he will not distinguish between both terms, although he states his preference for semiotic landscape 'because it explicitly includes multimodality', still he uses the term linguistic landscape more frequently in the text. A rather unique neologism was created by Johnson (2017: 7) in her suggestion to move beyond linguistic landscape into 'semiotoscape', which for her includes the voices of people, architecture and building materials. However, such a neologism only seems to lead to more terminological confusion. Additionally, the term semiotic landscape should not be mixed up with landscape semiotics, the study of physical and cultural landscapes through a semiotic lens (Lindström *et al.*, 2014).

Various authors use the combined expression 'linguistic/semiotic landscape' (among others, Banda & Jimaima, 2015; Jaworski & Thurlow, 2010; Moriarty, 2019; Reershemius, 2020; Thurlow & Gonçalves, 2019). This sometimes appears as a way to indicate how complex and difficult it is to find the most adequate expression or as a compromise. A recurring idea is that semiotic would be broader than linguistic. For some researchers, the label linguistic landscape in the literal sense of the word linguistic may perhaps be too specific or too narrow, because it seems then limited solely to language. In contrast, for others, semiotic landscape is too broad, because it includes all types of signs, also acoustic, haptic and gustatory. Moriarty (2019) claims that the use of semiotic landscape represents a shift in the field to a broader inclusion of all semiotic resources in a public space, including ideological implications, although she does not back up this claim with examples or data. Kerry (2017) even asserts that semiotic landscape research has its roots in linguistic landscapes and geosemiotics, stating that semiotic landscape research 'assumes a multimodal analysis'. Likewise, Ding *et al.* (2020: 2) argue that 'the semiotic landscape (…) is an addition to the study of linguistic landscape'. Also Reershemius (2020: 129) seems to be of the opinion that the term linguistic landscape came first and semiotic landscape was introduced later 'in order to take into account other semiotic resources'.

However, as we saw before, Shohamy and Waksman (2009) had already proposed a broad notion of language to go beyond written texts,

which was supported in the introduction to the same book (Shohamy & Gorter, 2009a). Later, Shohamy (2015, 2019) reiterated this view in order to potentially include all kinds of semiotic resources or, as Pennycook (2010: 69) noted, 'it may make little sense to try to separate text from image'. In their study on urban smellscapes, Pennycook and Otsuji (2015) offered further reflections on these conceptual issues. They aim at a broader understanding of the semiotic landscape which goes beyond multimodality and intentionality by including smells and odors in the analysis. This implies that they want to go further than the visible and the deliberate mentioned by Jaworski and Thurlow (2010) in the definition given above. For Pennycook and Otsuji, the elements of the senses and memories included in the definition by Kramsch (2014) are important. They propose a new approach that includes the relationship between the urban smellscape and the semiotic landscape.

One of the issues that makes solving the terminological choice between linguistic and semiotic almost unsolvable is, of course, that the adjective has a dual meaning. On the one hand, linguistic refers to the characteristic of being related to language when used in expressions such as 'linguistic behavior' or 'linguistic communication'. On the other hand, it refers to the scientific study of language, where linguistics is an academic discipline that includes the study of grammar, lexis, phonetics, discourse and pragmatics. In joining the words linguistic and landscape for an emerging field of studies, the new expression creates this ambivalence of interpretation because for some researchers it will be a figure of speech that points to the manifestations of language in public space, in the widest possible meaning of the word language. For others, however, it designates a branch of linguistics or a specialization comparable to sociolinguistics or applied linguistics. Seen in this disciplinary sense, the linguistic part of the label will be conceived of as narrowing the object of study down to issues related to linguistics and thus probably excluding research questions outside that scope. Perhaps going back to Saussure, who is seen as the father of modern linguistics, provides some additional insight. He proposed both a 'semiologie' (also referred to as semiotics) and a 'linguistique' as a part of the first. Semiotics has been closely linked to some approaches in linguistics. Furthermore, an important part of semiotics and linguistics is pragmatics which focuses on language use and has an important role in some linguistic landscape studies (Cenoz & Gorter, 2008; Kallen, 2009; Malinowski, 2015). Historically, linguistics and semiotics have thus been closely intertwined disciplines and therefore it is not surprising that current linguistic and semiotic landscape studies are close together as well.

Additionally, linguistic landscape studies usually focus on language used on 'signs', which is another word with several meanings, but in this case mostly taken in the sense of the public display of a message. The display of language on signs has almost unavoidably a visual element,

where linguistics has traditionally focused on the verbal. Of course, long before linguistic landscape studies arose as a specialized field in the early 21st century, investigators were undertaking research into signs.

In particular, semiotics as a discipline has a long tradition in the study of signs, meaning-making of signs, sign processes and sign-using behavior. Basically, semiotics is concerned with what constitutes a sign in the most general sense of the word, including different senses and different media. Obviously, semiotics has much to contribute to linguistic landscape studies, even if semiotic studies in general have paid relatively little attention to urban signage in public spaces as such. Spolsky (2009a) considered the possibility that some of the key answers for a theory of linguistic landscape could come from semiotics. In the same publication, he also argued for the relevance of a literacy approach to the study of verbal signs in public space. Furthermore, he observed that 'the study of public multilingual signage is developing into a sub-field of sociolinguistics or language policy' (Spolsky, 2009b: 66). More recently, Spolsky (2020) has argued that semiotics is the most promising theoretical framework for the field as a whole. According to him, future work on the linguistic landscape and public signage could become a branch of semiotics because it is a larger and better established field. Of course, Spolsky is right that public signage can be studied from the perspective of semiotic theory and even that, in principle, linguistic landscape studies could be incorporated into a larger discipline, but it seems unlikely that this will happen. One reason is that the linguistic landscape field can equally well be included under the umbrella of sociolinguistics or applied linguistics. A more likely development seems to be that the field of linguistic landscape studies remains an academic niche closely related to other specializations, rather than becoming fully integrated as a subfield in only one of the mainstream disciplines and not in others.

Researchers of linguistic landscapes, or semiotic landscapes, have rarely if ever argued for hard dividing lines or a need for orthodoxy. One could, perhaps, even argue that if researchers insist that their study is about the linguistic landscape, then it could be accepted as a linguistic landscape study, even if other researchers would have their doubts or perhaps even be inclined to reject the claim.

Within this field, researchers will be interested in different ways of studying not only the signs, but also the people, the producers of the signs and the passersby. They will place a different emphasis on how they analyze the signs or what they want to know about the people. Some researchers may ask why people chose the language or what their opinion is about it, because language choice and attitudes are typical sociolinguistic issues. Other researchers may be more interested in how people can learn specific forms of language on display, which is perhaps more an applied linguistic question. Again, others may wonder which meanings can be attributed to language, multimodal dimensions, design, placement

or material aspects, as more semiotic problems. There is a degree of overlap and there are many similarities. The differences seem to be more a question of emphasis by paying more attention to one aspect or another. Some researchers are starting with an investigation of the signage with an emphasis on the aspect of language, and then asking different questions: 'Which languages are chosen? How and where language is used? What are its linguistic features?'. In contrast, scholars who are starting from an interest in semiotic resources, such as symbols or logos, may be primarily interested in meanings and multimodal aspects. One could perhaps even argue that some researchers are mostly concerned about what is written in a context, whereas others focus more on the context in which signs are written.

In this book, we will use the term linguistic landscape throughout, but we include studies that use the label semiotic landscape and, of course, we use the term to refer to or cite such works.

1.5 Landscape

Linguistic or semiotic is only half of the expression; the other word in the equation is landscape. The word landscape (*lantscap*) can be dated etymologically to early 13th-century Dutch, when it referred to a region of land or a territory (Antrop, 2013). The suffix *-scap* refers to creating or reclaiming land (compare *scheppen* in Dutch or *schaffen* in German). Only in the 17th century was the meaning of a painting depicting a scenery on land incorporated in English as a genre of Dutch painting, although the art genre itself is older. Obviously, today landscape can relate to both territory and scenery. The word has additional meanings, including the expression of ideas or thoughts and it can be used in a metaphorical way. According to Antrop (2013), general landscape research has given attention to the exact meaning and scientific definition, but the meaning shifts according to the context and the users' background. Landscapes have distinct characteristics and are shaped by historical, economic and ecological factors. One approach in landscape research focuses, for example, on spatial patterns of land use, while another focuses on historical development and its meaning for heritage. One important point for linguistic landscape studies is the cultural geographic approach mentioned by Antrop (2013) because it focuses on the symbolic meanings of landscape as mentally and socially constructed. In an early publication (Gorter, 2006b), the concept of landscape was discussed in general, pointing to its double meaning as a tract of land and a picture as being common in different languages. Antrop and Van Eetvelde (2017: 42) observed that the word landscape 'has multiple meanings and subtle differences exist between "landscape" and related terms in different languages'. They also provide an overview of the key meanings of the word landscape in several European languages. As discussed in Gorter (2006b),

the word is similar in all Germanic languages, based on the root for land. The same happened in Romance languages, which translated the root as *pays*. The Finoegric languages use the root land, but Slavic languages use the root for region or territory (*kraj-*). Russian has both *peyzazh* and *landshaft*, as loans from French and German. Interestingly, *peyzazh* refers to the subjective aspect, with an emphasis on poetical, pictorial and emotional values. The meaning of *landshaft* refers to the objective aspect, which makes it possible to change the landscape in a technical way (Lörzing, 2001: 35). These two dimensions, the more subjective emotional and the more objective technical, could also be applied in linguistic landscape studies, for example to distinguish between the dimensions of the symbolic or solidarity function and the informative or communicative function of language signs (Gorter, 2006b). Interestingly, English is the only language where landscape is not only a noun, but also a verb: to landscape and landscaping. It means that the expression 'linguistic landscaping' is rather common in the literature.

Linguistic landscape is, of course, basically a metaphorical use of the word landscape. Still, in linguistic landscape studies, both the literal meaning and its representation are used. On the one hand, there is the study of features of languages as they are literally used in signs, and on the other hand, what languages represent, in connection to issues of the relative power and prestige of different languages in a sociolinguistic context. Signs in public spaces can be taken as the literal panorama passersby perceive when walking or driving through a street and, at the same time, the visible signage could be an indicator of the languages of the inhabitants or visitors and there can be different meanings or interpretations. The duality of the literal scenery and its representation is thus relevant for linguistic landscape studies.

The basic idea of landscape as a well-defined area that is somehow created, as a space that can be seen at one time from one place, is important for research methods in linguistic landscape studies. This idea is related to the unit of analysis and the research area where an investigation takes place (see Chapter 4).

In the opinion of, among others, Nash (2016) and Savela (2018), insufficient attention has been paid to the concept of landscape, given its relevance for linguistic landscape research, even though some authors have reflected on the concept, including Jaworski and Thurlow (2010), Kress and Van Leeuwen (1996) and Spolsky (2009a). Kress and Van Leeuwen (1996: 35) argue that landscape 'only makes sense in the context of their whole environment and of the history of its development'. They refer to the etymology of -scape related to shaping: landscapes are the product of human action and social history; for them, this aspect also applies to the semiotic landscape. Jaworski and Thurlow (2010) build on this line of thought and present a program of studies based on human geography and art history that attempts to cover a wide range of

issues related to the study of space as a semiotic resource. Following the geographer Cosgrove, they conceive of landscape 'as a way of seeing the external world and as a visual ideology' (Jaworski & Thurlow, 2010: 3) because space is not only physical, but also socially constructed. In agreement with Jaworski and Thurlow (2010), Leeman and Modan (2009) proposed to rethink the concept of landscape based on how the term is used in cultural geography, both as a place and as a way of seeing. Thurlow and Gonçalves (2019: 113) argue that the concept of landscape, even if it looks fixed, has to be understood as 'entailing dynamic, contingent, and often mobile processes of landscaping'.

Spolsky (2009a) perceived the term 'landscape' as misleading, and when he reflected upon the name of the field, he mentions cityscape as preferable to landscape, because the field investigates 'urban public verbal signs'. To some extent, we agree with Spolsky that signs are found less often in landscapes in the literal sense, as in nature, but are observed much more frequently in cities, thus in a cityscape. In almost all places, a cityscape will not have just one language, so, in that sense, as we said before, the term multilingual cityscape could be more accurate (Gorter, 2006b: 83). In the journal *Landscape Research*, Nash (2016) takes a polemic stance in his book reviews of Blommaert (2013) and Hélot *et al.* (2012). He answers his own critical and stimulating question 'Is linguistic landscape necessary?' with both yes and no because linguistic landscape studies are thus far mainly sociolinguistic but they need landscape research. He concludes that linguistic landscape studies need 'more precise landscape attention' (Nash, 2016: 5). Savela (2018) reflects more extensively on the term landscape and how it has been used or defined by geographic landscape researchers. Obviously, landscape is a more complex word than a territory or a region and there is no agreement on one definition among geographers. They commonly approach it as a pictorial representation, as a view or a way of seeing. Savela (2018: 32) follows the geographer Tuan's 'understanding of landscape as an integrated image, an ordering of reality, consisting of smaller units, which function as subsidiary clues to a larger construct'. Signs as individual units may appear chaotic, but taken together they function as one whole. This idea of a landscape as both order and disorder, or chaos and gestalt, can also be found in Ben-Rafael *et al.* (2010). Savela (2018: 32) argues that 'one should not focus solely on the landscape items as such, (because) otherwise one risks not seeing the overall pattern'. He also mentions that in the field of research on landscapes in general, the issue of language as such has seldom been addressed.

The suffix of the word land-'scape' can be linked to a series of different combinations with *scape* as an alternative or as additional dimensions of linguistic landscapes. Some authors have taken the work by Appadurai (1990) on globalization into consideration because he proposed five scapes as dimensions of fluid and shifting global cultural flows: ethnoscapes,

mediascapes, technoscapes, ideoscapes and finanscapes. Pennycook and Otsuji (2015) mentioned inspiration from the geographer Porteous who proposed a list of scapes based on the senses (allscapes, dreamscapes, etc.). In linguistic landscape studies related to education, 'schoolscape' (Brown, 2012) has gained traction, and others have proposed 'educationscape' (Vandenbroucke, 2022). Spoken language is included in 'soundscape' (Scarvaglieri *et al.*, 2013) and online studies have been referred to as 'cyberscape' (Ivkovic & Lotherington, 2009). Other examples are as follows: body inscriptions and tattoos form a 'skinscape' (Peck & Stroud, 2015); for tourists there is a 'linguascape' (Jaworski & Thurlow, 2010); an ethnography about odors is on a 'smellscape' (Pennycook & Otsuji, 2015); the study of graffiti deals with 'graffitiscape' (Wachendorff *et al.*, 2017) or 'graffscape' (Gonçalves, 2018); and the study of ethnic restaurants is on 'foodscape' (Abas, 2019) or 'semiofoodscape' (Järlehed & Moriarty, 2018). Other uses are 'refugeescape' (Moriarty, 2019), 'memoryscape' (Moore, 2019b), studying share-bikes in Sydney leads to 'bikescape' (Pennycook, 2019), and Thurlow and Aiello (2007) used 'semioscape' to analyze the tail fin designs of airplanes. A contrast has also been drawn between 'cityscape' and 'ruralscape' (Muth, 2015). Finally, an extension from the public to the private sphere leads to 'homescape' (Boivin, 2021). In sum, the literature on linguistic landscapes abounds with an endless number of possibilities of 'scapes'.

Overall, the expression 'linguistic landscape' seems to have been most often accepted among researchers and it maintains this preferred place in the face of efforts at replacement and further terminological refinement.

1.6 Concluding Remarks

The study of linguistic landscapes aims to add another lens to our knowledge about language in society by focusing on language choices, hierarchies of languages, contact phenomena, regulations, aspects of literacy and more. Linguistic landscape work has evolved from early investigations that looked somewhat like inventories of linguistic diversity on signs in public spaces, which Pennycook (2009: 305) labelled 'carthographies'. On closer inspection, one can observe that variation has been a characteristic of investigations from the beginning, even if a wider range of topics are covered nowadays in how and where linguistic landscapes originate, are constructed, perceived, experienced or create meaning. External factors continue to influence the ways in which language is displayed, among those globalization, flows of people due to migration and tourism, technological innovations and the internet, language policy and the revitalization of minority languages and sudden changes such as the COVID-19 pandemic. Linguistic landscape studies have to take those changes into account and such studies become especially significant when they concern social change or conflict and contact between languages or language groups.

Languages on signs are a panorama that spectators see when walking the streets. The relationship between the linguistic landscape and its sociolinguistic context is bidirectional. On the one hand, the linguistic landscape can reflect the relative power and prestige of the languages in a particular context. The totality of the visible signage is the outcome of various processes in a specific situation and the linguistic landscape can be an additional source of data about a sociolinguistic context similar to a census, a survey or interviews. The dominant language of an area has a greater chance of being represented, for example, in place names or commercial signs, while the use of a minority language will often be less common. On the other hand, people will process the visual information of their surroundings, including the written languages on signs, and in that way the linguistic landscape adds to the construction of a sociolinguistic context. This can influence how the prestige of languages is perceived, and it can also have an effect on linguistic practices.

The main aim of our book is to present a panorama of the field of linguistic landscape studies. We present a view of early writings, the scenery of its main approaches, the proliferation of a diversity of perspectives and the expansion of the field in several directions. We look into various issues clustered around a limited number of themes that have been investigated most frequently by researchers in the field. By doing so, we try to provide some answers based on actual data and a great number of research publications. We observe the field from a wide range of theoretical and methodological approaches so that we can present our broad overview of this dynamic and constantly developing field.

In photographic terms, we have tried to apply a wide angle lens in order to maximize our field of view, but in framing an encompassing panorama, we had to make selections and decide on what and what not to include. Other authors would have made another cut and probably emphasize other lines of work. This panorama is not a neutral undertaking and we are aware that our choices were guided by our own former work and our preferences. This book is an attempt at describing the state of the art in this field, but in many ways it remains a snapshot. It is not easy, or perhaps impossible, to answer the question of what linguistic landscape really is. We agree with Backhaus (2019: 165) when he states, 'If there is one thing we can say for sure at this point, it is that there is definitely no one proper way of doing linguistic landscape research'. Various questions about linguistic landscapes have been asked, such as: Does it refer to language only or also to other things surrounding us, such as sounds and buildings? What are the connections between signs, languages and people? How can linguistic landscape be applied as a pedagogical tool in an educational system? For a much longer list of relevant questions see Shohamy and Gorter (2009a: 2). For us, one of the most important reasons for developing and contributing to the field is that it furthers our understanding of the relationship between language and

Figure 1.5 Multilingual sign in tourist area in Mallorca

society. As we will see throughout this book, there are endless opportunities and infinite ways of looking into that relationship through the lens of the public display of language (Figure 1.5).

1.7 Overview of the Book

To conclude this Introduction, we briefly present the next 11 chapters. In Chapter 2 – History: Early Stages of an Emerging Field – we recount the story of how the field of linguistic landscape studies came about. We begin with an overview of seminal studies in five different contexts in the late 20th century. Those projects studied signage in Israel, Belgium, Canada, Spain and Japan. Those scattered studies, together with some others, are the early beginnings of the field. From there, we move on to four by now classic studies published in 2006 that were carried out in Israel, Thailand, Japan, the Basque Country and Friesland. Those studies initiated the establishment of a proper field. The chapter also presents an outline of an increasing number of publications, panels at international conferences as well as annual linguistic landscape workshops, and how those have contributed to strengthen and enlarge a community of researchers who share an interest in the study of public signage and multilingualism in urban contexts. Even if the study of the

linguistic landscape is still a relatively recent development, it already has a solid infrastructure. In Chapter 3 – Theoretical Approaches: A Range of Perspectives – we show the broad range of theoretical approaches in linguistic landscape studies. The diversity of theoretical perspectives can be explained because of the complexity of its object of study which has been investigated by a range of different disciplines. In this chapter, we start with theoretical work grounded in the social sciences, such as ethnolinguistic vitality, frame analysis and geosemiotics. Then, we focus on a few linguistic perspectives such as pragmatics, contact linguistics and language variation. Other theoretical approaches are based on disciplines such as history, economics, cultural geography and policy studies. Our own theoretical model of multilingual inequality in public spaces (MIPS) is then presented. The model aims to describe, analyze and explain the cyclic sequence associated with the construction of linguistic landscapes. In Chapter 4 – Research Methods: Quantitative and Qualitative Approaches – we follow the well-known division between quantitative, qualitative and mixed methods. Over the past few years, researchers have applied a wide range of different analytical techniques to linguistic landscape data, among those statistical and corpus analysis, and ethnographic, narrative, discourse and critical analysis. We further reflect on the two unresolved issues of the unit of analysis and the sampling area. In Chapter 5 – Photography and Other Distinctive Research Methods – we identify photography as the most typical research method of linguistic landscape studies. Research designs typically include a sample of digital photographs of public signage. We discuss the researcher as photographer, photos as data and the use of photos in publications. In the next sections, we examine innovative research methods, which are video-analysis, walking interviews and eye tracking.

In Chapter 6 – Multilingualism is All Around Us – the focus is on the diversity of languages and multilingualism as topics in almost any linguistic landscape study. We mention some recent developments in the study of multilingualism including the concept of translanguaging. We emphasize their application to the study of the linguistic landscapes. Proposals to categorize multilingual signs are presented and we explain how signs with more than one language can pose a challenge. The chapter goes on to report the results of some studies on multilingualism in the linguistic landscape, among others, studies conducted in Donostia-San Sebastián. In Chapter 7 – The Visibility of Minority Languages – we first introduce the study of minority languages in general. Thereafter, the chapter discusses how the visibility of language is a key factor for minority language groups. The main part of the chapter consists of a comparison of 24 different minority languages. A separate section discusses studies of Chinatowns. The chapter also discusses processes of commodification and tokenism, when minority languages become sellable products. In Chapter 8 – The Influence of Language Policies – we first explain the

relevance of language policy and planning research. Second, we examine the cases of Quebec in Canada and Brussels in Belgium where important language policy studies have taken place. Next, we discuss how different models have been applied and what we can learn from the results. Finally, we discuss our own work on Basque and language policies. Chapter 9 – English Can Be Seen Everywhere – examines how English plays a role in almost any study. We start by discussing globalization and English studies in general. We then apply the well-known model of inner, outer and expanding circles, together with ideas on language hierarchy. In Chapter 10 – Educational Contexts – we first look at linguistic landscapes as a pedagogical tool. The linguistic landscape can be a source of authentic input for language learning. Moreover, research studies also indicate that the linguistic landscape can be used to develop students' motivation and to raise language awareness. The second half of the chapter deals with schoolscapes inside schools in different contexts, including our study of the functions of signage inside Basque schools. Chapter 11 – What's In the Names? – discusses the various types of names in linguistic landscapes. Onomastics, the study of proper names, is relevant for linguistic landscape studies. We further discuss the problem of attributing names to languages. Two recurring themes are the effects of a name change, and what names signify. In Chapter 12 – Expanding the Field of View – the concluding chapter, we deal with some topics that have only been touched upon tangentially in the foregoing chapters: borders, gentrification, gender and sexuality and graffiti. We discuss some further topics that remain insufficiently researched or unresolved. We look forward to consider technological developments and a trend toward uniformity and discuss future directions this fascinating field may take.

2 History: Early Stages of an Emerging Field

2.1 Introduction

In this chapter, researchers can obtain relevant background information from a fairly detailed outline of the historical development of linguistic landscape studies into an established field of research. One might expect that an account of the emergence of the field would be relatively concise, because it arose over a fairly short period of time. We date the planting of the seeds for the field in the 1970s, before it received a major boost in the 1990s; however, its establishment as a proper field did not gain momentum until the mid-2000s. As will become clear, the history of the field relates to several of the core issues that continue to be investigated and those issues will be dealt with at length in the other chapters. Short overviews of the field's developments can, among others, be found in Gorter (2013), Huebner (2016a), Shohamy (2019), Shohamy and Pennycook (2022) and Van Mensel *et al.*, (2016).

The field of linguistic landscape studies has made a lot of progress, as we explained in Chapter 1. Today, the field is highly diverse with investigations of how linguistic landscapes originate, are constructed and experienced, and how meanings are attributed to signage embedded in complex sociopolitical contexts. Researchers of linguistic landscapes base their analyses on a wide variety of theoretical approaches (see Chapter 3), apply various research methods (see Chapters 4 and 5) and the studies are carried out in any place in any corner of the globe.

This chapter sketches the historical growth of this specialized field. In Section 2.2, we point to a handful of precursor studies that were carried out in different societies in the late 20th century. We mention some remarkable links between those early studies in Israel, Belgium, Canada, Catalonia and Japan, and we point to some connections between those works and later publications. The field was only set in motion at the beginning of the 21st century with a limited number of inspiring publications, which we discuss in Section 2.3. Those studies prompted new research projects by others and have led to a proliferation of publications and growing momentum (Section 2.4). In this chapter, we emphasize the

early developments and return to more recent studies in later thematic chapters.

2.2 The Seeds of a New Field in the Late 20th Century

Academic interest in signs has a much longer tradition than linguistic landscape studies, among others, in semiotics and the theory of signs and symbols. The specific study of signage in public spaces in its own right is a recent development. The field of linguistic landscape studies may have started to bloom in the 21st century, but the origins of public signage go much further back in history. Coulmas (2009: 13) reminds us that 'linguistic landscaping is as old as writing… and some of its earliest functions are bound to public display'. He observes that there has always been a strong interplay between the development of writing and early processes of urbanization. His reflections on linguistic landscapes in antiquity are relevant for the study of linguistic landscapes today. He mentions that inscriptions could be found in ancient cities, for example, on monuments or as property markers. Some of these public textual displays have been handed down through thousands of years of history and can still be seen today in public spaces and museums. Coulmas (2009) discussed the producers, locations, functions and readers of famous inscriptions from antiquity that are a defining feature of city life and he related those inscriptions to issues of readership. The *Codex Hammurabi* carved on a black stone stele is the oldest inscription in cuneiform script in the Old Babylonian language (dated between 1972 and 1750 BC). Another example that Coulmas discusses is the Rosetta Stone, which is part of a broken stone slab containing three scripts (hieroglyphic, demotic and Greek) and two languages (Egyptian and Ancient Greek). As is well known, it was crucial for the decipherment of hieroglyphs. The example is important because, as Coulmas (2009: 18) concluded, 'the Rosetta Stone embodies many of the intricacies of language contact and linguistic hierarchy that form the substance of linguistic landscape research'. His analysis is not only of historical interest, but also clarifies why today so many linguistic landscape studies are carried out in cities.

A number of investigations can be identified as forerunners that preceded the emerging field of linguistic landscape studies. The studies originated in Israel, Belgium, Canada, Spain and Japan, and those five societies are all characterized by intensive language contact, and thus, according to 'Nelde's law' by language conflict; because Nelde's (1987) law states that there is no language contact without language conflict. Each of these societies metaphorically formed a 'cradle' for linguistic landscape studies because innovative research projects nurtured into early existence a new approach to languages in public spaces. It makes sense that attention to how languages are represented on signs came about in these societies because of different processes of language contact and conflict with the

increasing presence of predominantly commercial signage in a globalizing world. The early linguistic landscape studies in these five societies are summarized in the following sections.

2.2.1 Surveying languages on signs in Israel

After the establishment of the state of Israel, Hebrew, a once lost language, was fully revitalized, although the process had already started in the 19th century. Hebrew was regarded by some as a dead language only used for religious purposes (Berdichevsky, 2014). The revitalization of Hebrew pushed other languages to the side, but Arabic and English remained strong contenders, as well as other languages that were brought by immigrants, such as Russian.

The first two small-scale studies we discuss come from a larger sociolinguistic project about the spread of English in Jerusalem. In 1973, Rosenbaum *et al.* (1974, 1977) collected data about spoken language in one street, Keren Kayemet Street, via interviews and planted encounters. They included a count of the written signs of 30 shops, 3 restaurants, 10 private offices and 9 government offices in the same street (a total of 52 establishments). The signs were categorized as (1) no Roman script (only Hebrew); (2) some Roman script but Hebrew script dominant; and (3) both Roman and Hebrew script. The Roman script coincided in most cases with English and each of the three categories contained about one-third of the signs. So, Hebrew had a presence on all signs and English could be seen on about two-thirds of them. The researchers observed a gap in the signage between the official language policy, which supports Hebrew-only signs, and a tolerance toward English in the commercial signs in the more common Roman script. Their conclusion was that English was seen more than it was heard and the prevalence of English is explained by its 'snob appeal' (Rosenbaum *et al.*, 1977: 151). A similar prestige factor about the spread of English is mentioned in several later studies.

As part of the same project on the spread of English, a second, similar count was made of Hebrew and English on the signs in Jaffa Road, the main shopping street of downtown Jerusalem (Nadel & Fishman, 1977). The results for the languages were similar, in that 28% contained Hebrew only, on another 28% Hebrew was dominant and 44% were bilingual with Hebrew and English as equal, including a few signs where English dominated. Interestingly, about 20 years later, in 1993, Spolsky and Shohamy (1999) repeated the count of the signs on Jaffa Road. They found an increase in Hebrew-only signs (to 38%) and fewer signs where both languages were equal. It seems that the outcome was a reflection of 'the success of ideologically motivated efforts to cut down on the prominence of English in commercial signs' (Spolsky & Shohamy, 1999: 169). The focus on the presence of English of these early studies is again the focus of several later linguistic landscape studies (see Chapter 9).

About a decade after the first two studies, in the early 1980s, Spolsky and Cooper (1991; also Spolsky & Cooper, 1983) carried out a sociolinguistic study of the languages of Jerusalem and again they included the choice of languages on signs. The opening sentence of their book reads like an introduction to a linguistic landscape study: ‘Anyone walking the Old City through the Jaffa Gate is immediately struck by the multiliteracy proclaimed by the signs’ (Spolsky & Cooper, 1991: 1) (Figure 2.1).

Among others, they presented one pair of street signs in the Old City of Jerusalem (see Figure 2.2); methodologically, this is a remarkable example of a qualitative linguistic landscape analysis.

The two signs are placed on opposite sides of the same street. Each sign consists of nine tiles, written in three languages. The Hebrew and Arabic texts are identical in both signs, but on one side, the English reads ‘Ha-Malakh RD.’ and on the other ‘El-Malak RD.’. In the first sign, English is a transliteration from Hebrew, and in the second from Arabic. Apparently, the signs date from different periods when different

Figure 2.1 Multiliteracy at Jaffa Gate in Jerusalem

Figure 2.2 Street signs Ha-Malakh RD. and El-Malak RD. in Jerusalem

authorities decided on the city's street name signs. That the two signs are different is visible because the first consists of nine tiles within a single frame where the text is written over three tiles. The second sign, however, has the lower six tiles together but the top line with the name in Hebrew has obviously been added later. Looking at the language positioned on top, this can be related to changes of the city's rulers in different eras. The explanation given by Spolsky and Cooper (1991: 4–8) is that the original sign in Arabic and English was placed there during the Jordanian occupation between 1948 and 1967. Then, in 1967, the Old City came under Israeli rule and the Hebrew part was a new addition above the old sign. The same example is discussed by Backhaus (2007: 26), Calvet (2006: 35–37) and Spolsky (2009a: 26–27; 2009b: 67–68; 2020: 3). In his recent publication, Spolsky (2020) added some interesting details on the sign maker.

This interesting and detailed analysis of the placement of the three languages, Hebrew, Arabic and English, on the street sign could clarify social and political dominance and language contact. The example is useful for linguistic landscape researchers because it demonstrates that an in-depth analysis of a limited number of signs can provide important insights about historical relationships between social groups and languages in an urban community.

In the same publication, Spolsky and Cooper (1991) included a quantitative analysis of the characteristics of signs from a literacy perspective. A detailed list of all the (analogue) photographs of the signs and their basic characteristics is included in the book. Based on Jackendoff's (1983) ideas about semantics, they formulated a theory of language choice on signs in which a 'conditions model' is proposed with three rules: (1) 'sign writer's skill': write a sign in a language you know; (2) 'presumed reader': write a sign in the language that can be read by the public; and

(3) 'symbolic value': write in your own language or the language with which you want to be identified. The three conditions can apply to any sign but the significance may vary from sign to sign (Spolsky & Cooper, 1991: 81–84). Later, Spolsky (2009a: 32–34) updated this model to integrate it in his theory of language policy (also Spolsky, 2009b: 65–89). He connected the study of multilingual signage to the three components of his language policy model: beliefs about language, language practices and language management. The linguistic landscape belongs, first and foremost, to the component of language practices. Chapter 8 deals at length with language policies because they have turned out to be of central importance to the field of linguistic landscape studies.

These early studies laid the groundwork for later investigations. Ben-Rafael *et al.* (2006) presented the outcomes of a project focusing specifically on the linguistic landscape of different Israeli cities where tense relations exist between Hebrew, Arabic, English and other languages. Their publication would become a classic study, one of the cornerstones for building a new field (see Section 2.3). The first international workshop on linguistic landscapes took place in Tel Aviv in 2008 and these specialized workshops have become an annual event in different places around the world. The linguistic landscapes of Israel have continued to provide a rich decor for several studies, for example, Amara (2015, 2018a, 2018b, 2019), Shohamy and Waksman (2009), Trumper-Hecht (2009, 2010) and Waksman and Shohamy (2016, 2020). A selection of the results of those studies are incorporated in later chapters. In Section 2.2.2, we discuss Belgium, a society similarly characterized by language conflicts among Dutch and French speakers.

2.2.2 The separation of languages on signs in Belgium

Belgium is situated on the Germanic–Romance language border, which was probably already established in the 11th or 12th century. The language question in Belgium has turned the border into a legal, political and institutional dividing line of intense language conflicts between Dutch and French, with the bilingual capital of Brussels as a special case (Willemyns, 2002). Standard French was historically the dominant language, with Flemish (Dutch) and Walloon (French) positioned as vernaculars. The territorial divisions between Dutch and French have remained reasonably clear in the largely monolingual Flemish and Walloon parts of Belgium. Historically, Brussels was a Flemish city, but in the 19th century and the first half of the 20th century, a substantial language shift took place from Dutch to French, and French became the dominant language. Dutch long struggled against the increasing presence of French and later against other languages, most of all English. Today, the majority of its population speaks French at home or French in combination with another language because the population is increasingly multilingual (Janssens, 2012). Brussels is the location for another forerunner study of linguistic landscapes.

In the 1970s, in a pioneering study, Tulp (1978) investigated outdoor billboards and large advertising posters, and interviewed staff members of advertising agencies. Her goal was to find out about the influence of signage on language use. Notably, Tulp (1978: 274–275) refers to the unpublished conference paper by Rosenbaum *et al.* (1974) on their work in Jerusalem as the only study of storefront signs of which she is aware. Although it did not influence Tulp's research design, the reference shows an interesting link to the work in Israel.

Tulp's project included an inventory of the languages used on some 1,200 billboards and posters by following the bus and tram lines through the city. With an interval of four months, she sampled the signs twice by making handwritten notes of the languages. This was at a time when it was more difficult to take photographs on such a large scale. Based on the outcomes of previous studies, Tulp mentions that Dutch was spoken by a minority (25%) and French had a strong position in social life in general. She found that Dutch speakers were underrepresented in the advertising agencies. During the interviews, the advertising agency staff emphasized that they wanted to produce messages that were comprehensible for both language groups. However, Tulp was met with disbelief when she suggested that they could avoid a language choice by using images without texts.

In the linguistic landscape she surveyed, on average over a quarter (27.7%) of the billboards and posters were in Dutch, although there were substantial differences between the 19 neighborhoods that were included: Dutch varied from 15% to 50%. The conclusion was that overall the city was not bilingual, but predominantly French (Tulp, 1978: 284). She further points out that the two languages, Dutch and French, were usually kept separate on signs and only 8.9% of the billboards and posters were aimed at both Dutch and French language groups. The lack of bilingualism was caused by the ongoing language conflict over the use of the two official languages. She found no English language posters, just a few examples of phrases with some simple French–English code-switches and an infrequent use of other languages. It seems that the use of English on public signage was not a relevant issue in the 1970s.

This description of the linguistic landscape of Brussels represents an early example of a quantitative distributive approach, which was applied in many later studies, although Tulp combined it with insights from the producers of signage in advertising agencies, which is a more exceptional approach in later studies.

The inventory part of the linguistic landscape of Tulp's study was partially replicated in 1992 by Wenzel (1998). She found that some interesting changes had occurred and it turned out that English had found a place because it was used as the only language on almost 10% of all billboards and posters. Bilingualism was still uncommon because less than 1% were bilingual Dutch–English or French–English. She concluded

Figure 2.3 Trilingual book festival poster in Brussels

that French continued to dominate the public space, and she suggested that using English could be a way to 'avoid Brussels' language problems' (Wenzel, 1998: 48). This outcome may indicate that in the 1980s, English had started to spread more in Brussels (Figure 2.3).

Again almost 20 years later, in 2009–2010, Vandenbroucke (2015) carried out a study that was in some ways similar to the two earlier inventories by Tulp and Wenzel. As it turned out, French remained the dominant language in Brussels' public space, although Dutch and English had a presence of around 20% in some neighborhoods. In addition, Vandenbroucke observed a small number of signs with other languages, such as Arabic, Chinese, Japanese, Italian and Spanish. Vandenbroucke (2015: 175) concluded that 'the occurrence of these languages in Brussels' landscapes is a clear indication of transnational mobility and globalisation'.

The multilingual cityscape of Brussels has inspired further linguistic landscape work, which we return to in later chapters, for example in Chapter 8 on language policy. There we discuss, among others, the study by Mettewie *et al.* (2012) who analyzed wordplay in 'bilingual winks' comparing Brussels to Montreal. The latter city is in Canada, the country to which we turn next.

2.2.3 *Paysage linguistique* in Canada

Canada has a long history of language issues, in particular in the province of Quebec, where the Francophone minority felt threatened by the political and economic dominance of speakers of English and took legal steps to protect the French language and their identity (Bourhis, 1984;

Martel & Pâquet, 2010). In Quebec, French had a position of an 'island in an English sea' (Carens, 2000: 130) and the minority felt that it was being pushed out. Therefore, it comes as no surprise that some early studies of signage took place in Canada. Beauchamp-Achim and Bouchard (1980) reported the results of a survey among a sample of 1,371 people who were questioned about language use in various commercial establishments and public services. The survey included some questions on the language of publicity. Likewise, Monnier (1989) surveyed the commercial sector of Montreal, the most populous city of Quebec, for the languages used when welcoming clients and for the oral services rendered. He included observations of the language displayed by commercial establishments in different zones of the city and he reported the percentage use of unilingual French displays. In his report, he included the linguistic landscape of the languages on signage. As we mentioned in the introductory Chapter 1, he alternates the terms *paysage linguistique* and *visage linguistique*. He reported that a quarter of Francophones feel that this issue is not important, while 36% think that the city center does not sufficiently show that Montreal is predominantly French. In later years, the *Conseil supérieure de la langue française* and the *Office québécois de la langue française* commissioned similar inventories of the use of French that included the languages on signage (among others, Bouchard, 2012; Desautels, 2019).

As we mentioned in Chapter 1, Landry and Bourhis (1997) published an article on linguistic landscape. Their in-depth discussion of the concept established a link with bilingualism on signs in Belgium by looking at the language problems between the French- and Flemish-speaking communities in Brussels.

Inside the framework of subjective ethnolinguistic vitality (Bourhis *et al.*, 1981), the linguistic landscape may be 'the most visible marker of the vitality of various ethnolinguistic groups' (Landry & Bourhis, 1997: 34). The hypothesis was that the linguistic landscape has an important influence on vitality beliefs. To test their hypothesis, they created a sample of 2,010 Francophone students by combining the data of several studies using the same questionnaires across 11 provinces in Canada in more than 50 secondary schools. A factor analysis confirmed that linguistic landscape emerged as a separate factor, including four items about 'government signs, road signs and street names; private signs including commercial signs in storefronts; publicity signs inside stores; and advertising sent by mail' (Landry & Bourhis, 1997: 41). The approach investigates the perceptions of the relative strength of different language groups and how those are represented in different types of signs, not limited to public signage (ethnolinguistic vitality is further elaborated in Section 3.2).

The path-breaking insights on the importance of the linguistic landscape as a separate factor were inspirational for other researchers working with the framework of ethnolinguistic vitality. For example, Barker *et al.* (2001) examined the impact of the English-only movement on the

perception of vitality among the Hispanic population in the United States and they refer to Landry and Bourhis' concept of linguistic landscape. Barker *et al*. (2001: 29) provided recommendations for future research, including: 'Investigation of perceptions of the prevalence of languages other than English in the linguistic landscape and how this relates to… subjective vitality'. This advice was taken up in the study by Dailey *et al*. (2005) who, again from the perspective of ethnolinguistic vitality, measured perceptions of linguistic landscape among a group of Anglo and Hispanic teenagers in California. Other references to the Landry and Bourhis article are made by Vihalemm (1999), who mentions it in passing, referring to the linguistic landscape in Estonia, as well as by Hulsen (2000: 22, 35), who refers to the linguistic landscape in New Zealand as a factor of language contact among Dutch migrants.

The Landry and Bourhis article contained one of the seeds for a new field of research, even though the authors themselves did not look directly into the textual information on signs. Their conceptual reflections drew attention to the relevance of languages on signs in public spaces and this inspired other researchers to look more directly at the characteristics of the signs themselves. In particular, the definition of the linguistic landscape became widely quoted as shorthand to indicate the object of linguistic landscape studies and it became a reference point for numerous researchers. Their definition effectively captures the objects in the linguistic landscape, even though it is essentially a list of six types of signs (see Chapter 1 for a discussion of this definition and alternatives) (Figure 2.4).

Figure 2.4 Bilingual French–English sign in Montreal

The multilingual context of Canada has continued to provide fertile ground for linguistic landscape studies, similar to what occurred in Israel and Belgium. We come back to several of those studies in later chapters (see Section 8.3.1).

The study by Gade (2003), who compared Catalonia to Quebec, is suitable as a bridge to the next section. His study of what he called *scriptorial landscape* has gone largely unnoticed in the literature, perhaps because of the label, although Kasanga (2010: 183) thought that the term could 'gain currency as it is more inclusive'. Gade compared the linguistic landscapes in one small city, Olot, in Catalonia to a similar city, Victoriaville, in Quebec. He observed a change in a relatively short period from monolingual Castilian to Catalan signs in Olot and from bilingual French–English signs to French only in Victoriaville, among others, based on a comparison of old photographs of signs. He sees the linguistic landscape mainly as an expression of identity politics both in Quebec and Catalonia. It is to the latter community that we turn in the next section.

2.2.4 Counting the visibility of Catalan in Spain

Spain went through a period of transition from a dictatorship to a democracy in the late 1970s. The Spanish constitution (1978) recognized minority languages such as Basque, Catalan and Galician as co-official with Spanish in the regions where they had been in use since time immemorial. Language policies to support and revitalize the minority languages were referred to as a process of *language normalization* which means giving those languages back their normal place in society, including a presence in public spaces (Plataforma per la Llengua, 2022; Vila i Moreno, 2008).

In 1983, the Language Normalization Law for Catalonia (*Llei de Normalització Lingüística a Catalunya, 7/1983, April 18*) was passed guaranteeing the use of both Spanish and Catalan. The Directorate for Language Policy of the Regional Government started a vigorous campaign to enhance the use and visibility of Catalan in society. Obviously, the policymakers were interested to see the impact of their measures on the use of Catalan, among others, and how it affected its display in public. Several studies were carried out by the Directorate for Language Policy, but they were for internal purposes and remained unpublished. In January 1998, the new Language Policy Law (*Llei 1/1998, de política lingüística. DOGC núm. 2553*) was passed, and had as its main aim the promotion of Catalan. Today, this law is still in force, and it contains a number of specific articles on the use of Catalan on signs. The law stipulates that Catalan should 'at least' (*almenys*) be present in the signage of any companies, entities or establishments that have relations with the general public. The regulation does not exclude other languages and it does not state anything about prominence (unlike the Toubon law in

France or Law 101 in Quebec). Starting around the same time as the law, various relatively large-scale studies were carried out, making an inventory of the presence of oral and written Catalan in public spaces. This time the results were published, but in Catalan only, and they remained little known in the English language literature. For example, Backhaus (2007) does not mention any of the studies in his rather exhaustive historical inventory and none of the later overview publications refers to the Catalan studies (see Section 2.1), with the exception of one small remark in Gorter (2006b: 85), about the monitoring of the linguistic landscape by the regional government and a reference to the study on exterior publicity by Solé Camardons (1998).

It was not until the publication by Comajoan Colomé and Long (2012: 186–190) that a detailed summary of several studies was provided in English. They mention, among others, a study by Solé Camardons and Romani (1997), who reported on an inventory of language use in more than 5,800 stores and businesses, where it was found that Catalan predominated (32.9%) in the main sign of a store, but the smaller signs were most often in Spanish only (35.5%). Only 3.5% of the main signs were bilingual, whereas 23.6% were 'ambivalent' signs in which the words in Catalan and Spanish were the same, because of the close relationship between the two languages. Another project they mention is by Solé Camardons (1998), who presented detailed findings of a large study into outdoor publicity in Barcelona that included a sample of 6,617 observations of advertisements and messages from 20 commercial areas, including 35 metro and train stations, 300 buses and 4 football stadiums. There were substantial differences between 48% Catalan signs in the streets in contrast to the football stadiums and the metro, each with 34% Catalan signs. Comajoan Colomé and Long (2012) also mention similar studies by Solé Camardons (1999) on supermarkets and Leprêtre and Romaní (2000) in Barcelona and other cities. They further refer to some later studies, for example, among a wide variety of small and medium enterprises, including supermarkets, gas stations and driving schools. In general, the studies confirm a gradual increase in the use of Catalan for outdoor signage in the 2000s. The same authors further observe that even if there have been many studies, most of those studies are straightforward descriptive inventories focusing on one commercial sector and do not consider the linguistic landscape as a whole. Similar studies of the inventory type continue today and some have been published by the *Plataforma per la Llengua*, a non-governmental organization, created in 1993, that works to promote the Catalan language (https://www.plataforma-llengua.cat/que-fem/estudis-i-publicacions/) (Figure 2.5).

An interesting early ethnographic study is reported by Frekko (2009), who focused on the use of Catalan on protest banners. In 2002–2003, inhabitants in four streets in the Raval neighborhood of Barcelona hung banners in Catalan from their balconies. Using Catalan attracted the

Figure 2.5 Japanese restaurant Kome Kome in Barcelona

attention of city hall and the conclusion is that it helped to make changes to improve the quality of life in the neighborhood. In Chapter 7, we discuss the outcomes of more recent studies in Catalonia.

The early work in Israel, Belgium, Canada and Catalonia was complemented by research in Japan, where some studies have contributed to laying the foundations for the later development of a proper field, as we will see in the next section.

2.2.5 Language contact in monolingual Japan

Japan is an example of what used to be a fully monolingual country with its own language and script, but where the effect of globalization became reflected in public signage and where English has obtained increased visibility in public spaces and, to a much lesser extent, some other languages. English has gradually encroached upon the monolingual linguistic landscape of Tokyo and other cities. This development is similar to the processes of globalization happening across the world, as was, among others, signaled in an early study of shop signs in Jordan by El-Yasin and Mahadin (1996).

Signs of Multilingualism in Tokyo: A Linguistic Landscape Approach was the title of the PhD thesis that Peter Backhaus (2005a) defended at the University of Duisburg-Essen in April 2005. After rewriting and updating his thesis, it was published two years later as the first monograph focusing entirely on linguistic landscape (Backhaus, 2007); this influential book has become widely cited.

As stated before, Backhaus included a complete overview of previous work on linguistic landscapes from the 1970s until 2006. The results

and the different perspectives of those earlier studies are summarized by him at length (this includes the examples from Jerusalem, Brussels and Montreal, which we briefly summarized above). Of course, he included details about previous linguistic landscape research in Tokyo. Worth mentioning is the early survey from 1962 by the geographer Masai (1972), who examined the languages and the scripts on some 3,000 shop signs in Shinjuku, a central area of Tokyo. Perhaps this can be considered the earliest survey ever of a language landscape (Backhaus, 2007: 48–49). Other studies of signage in the city showed a variety of languages on signs, although Japanese was clearly dominant (Figure 2.6).

For his own project, Backhaus presented an elaborate analysis based on a large empirical database of almost 12,000 signs, collected in 2003.

Figure 2.6 Street crossing in Shinjuku, Tokyo

He was able to uncover the multilingual reality of the linguistic landscape of Tokyo. About 80% of the signs were monolingual Japanese and about 20% were bilingual or multilingual, most including Japanese. In his further analyses, he focused on those multilingual signs and identified 14 different languages (Backhaus, 2007: 71). However, 97.6% of the multilingual signs contained English, thus, in a later publication Backhaus (2010: 362) concluded: 'the visibility of English is so salient that one may say multilingualism in Tokyo's linguistic landscape is for the most part Japanese-English bilingualism'. He attributed the visibility of languages and scripts other than Japanese to factors such as the promotion of the internationalization of Tokyo by official language policies, a growing number of non-Japanese inhabitants and positive attitudes toward the visibility of English and other foreign languages (Backhaus, 2007: 145). His publication made convincingly clear that an investigation of an urban linguistic landscape has great value for our knowledge and understanding of multilingualism.

In Backhaus' 2006 article, he summarized some of the main outcomes of his project, with an emphasis on official and non-official signs. The article was part of the collection that led to a breakthrough in linguistic landscape studies (see Section 2.3).

Several years later, Backhaus (2019) analyzed trends in the development of linguistic landscape research in Japan. First, he observed an increasing number of studies that investigated the ways in which English and the Roman alphabet are used. Second, a large number of studies looked into the provision of multilingual information on signs, the so-called language services, for example, in department stores and on public transport. Third, various researchers studied the presence of Korean and other non-Japanese communities. Fourth, there were explorations into the varieties of the Japanese language and dialects in different regions as reflected in the linguistic landscape. Fifth, Backhaus observed as a major trend the increase in studies with a qualitative or ethnographic approach. Finally, he considered that in Japan as well as in other contexts a large number of relatively plain papers had been published. His overview of studies in Japan provides insights into a blooming field with similar trends that have occurred in other contexts and to which we will return in other chapters. In the next section, we describe how the next building blocks of the new field were laid.

2.3 The Establishment of a Proper Field

Basically, the early studies we discussed above were more interested in other phenomena than the linguistic landscape *per se*. In Jerusalem, the publications by Rosenbaum *et al.* (1977) and Nadel and Fishman (1977) were both part of a study focusing on the spread of English, and the study by Spolsky and Cooper (1991) was not primarily about signage but

a sociolinguistic study of one city. Furthermore, Tulp (1978) was mostly interested in the use of French and Dutch in advertising and less in the characteristics of the public display of languages in Brussels. We define these studies as *precursors*, which came before the proper field of linguistic landscape studies emerged. As we have seen, the early studies inspired others to focus more exclusively on the analysis of the public display of language, which was part of the work of Landry and Bourhis (1997) and the central focus of Backhaus (2007).

In the early 2000s, with one or two even earlier exceptions in 1996 and 1997, a number of individual and largely disconnected publications appeared that can be considered as linguistic landscape studies and of which we present a short overview. As such, those studies belong to the history of the field, although, in retrospect, they seem mostly accidental and isolated.

We already mentioned El-Yasin and Mahadin (1996) who studied shop signs in Jordan and another study among the first was Ross (1997) who reported on English on signs in his neighborhood in Milan. His study was followed by McArthur (2000) who considered the use of English on shop signs in Zurich and Uppsala. His example inspired Schlick (2002) to compare Zurich and Uppsala to three other cities, namely Klagenfurt, Udine and Ljubljana. The results demonstrate that in each of the five cities English had an important, albeit varying presence, although her samples were quite small (80 signs per city at most). Schlick (2003) carried out a follow-up study in four countries (Austria, Great Britain, Italy and Slovenia). In this second study, Schlick included the capital city of each country and one provincial town. Again, she found a good deal of English on shop signs, although there were no large differences between each of the capital cities and the smaller towns.

In February 2002, a group of geolinguistic researchers in India gathered for a seminar on 'linguistic landscaping' in Mysore. The proceedings contained 17 chapters covering a range of topics (Itagi & Singh, 2002). A few chapters included theoretical reflections on linguistic landscaping as an intentional and designed activity, as well as the relation with language planning. One chapter documented the dominance of Hindi and English in public spaces and the lack of visibility of tribal languages (see Chapter 9, the section on India). However, other contributors to the volume understood linguistic landscape as the use of many languages or linguistic diversity. The list of references in the book makes clear that some authors were aware of the publication by Landry and Bourhis (1997) and also of the report by Ben-Rafael and Shohamy (1998), which we mention below. The meeting came about after 'an Indo-Israel contact' at a conference in Hyderabad (Itagi & Singh, 2002: vi), probably the 3rd International Conference of South Asian Languages and Literatures (ICOSAL) in 2001, attended by Ben Rafael, Shohamy and Spolsky.

At the World Congress on Language Policies in Barcelona in April 2002, Hicks presented a paper on signage in Scottish Gaelic, in relation to language policy. Hicks (2002) refers extensively to Landry and Bourhis (1997) and the way they discuss the concept of linguistic landscape.

Hult (2003) published a study looking into the relationships between English and Swedish, based on the ecology of language framework (Haugen, 1972). He explored shopping streets in the cities of Lund and Malmö, where he found a strong presence of English on storefronts and signs. English was not imposed from above, but developed from the ground up into a prominent and potentially dominating component of the Swedish print environment. In the publication, there is no explicit link to earlier work on linguistic landscapes and Hult did not use the term, but he called it *print environment* and he referred to *linguistic culture*.

Scollon and Scollon (2003) published a monograph *Discourses in Places* that contains the framework of *geosemiotics*, which became influential for later studies. Their work is theoretically enriching, and in Chapter 3 we present a summary. The book inspired, among others, the studies of Lou (2007, 2016a) about Chinatown in Washington, DC and the work by Blommaert (2013) in Antwerp and Ghent (see below). Bolton *et al*. (2020) called the book a 'singular contribution' that does not fit well within the later stream of publications (see below).

In the immigrant neighborhood of Rabot in Ghent, Collins and Slembrouck (2004) analyzed ways of perceiving, reading and construing the multilingual signs that were posted. They found differences between locals and immigrants in the reading and interpretation of the signage. An interesting link to this early study occurs in the later work of Blommaert (2013), who at the time was a direct colleague of Collins and Slembrouck. Blommaert (2013: 22) had been collecting linguistic landscape materials since 2007 in his own neighborhood of Berghem in Antwerp. He developed an ethnographic approach, which was based, among others, on the geosemiotics framework of Scollon and Scollon. The approach was elaborated and systematized in Blommaert and Maly (2016) with material from the same Rabot neighborhood in Ghent. This work laid the basis for what they called the ethnographic linguistic landscape approach (ELLA). In Section 4.3, we discuss the research method ELLA in more detail.

As part of a project called Multilingual Literacy Practices that ran from 1999 to 2001, Reh (2004) became interested in multilingual writing. She examined signs in different regions in Uganda and she gave special attention to the amount of information in each language in bilingual signs and their intended readership. Reh developed a model of combinations of languages and information in the text on signs that was useful for later studies (among others, Backhaus, 2007; Edelman, 2009; Huebner, 2009). Her model was elaborated by Sebba (2013) into

a general model of multilingual and multimodal texts (discussed in Chapter 6).

All of the aforementioned individual publications have a focus on public signage and can thus be considered linguistic landscape studies, even though not all of them used the term. Among these studies there were a few interesting relationships through cross-referencing, but there was no idea of building up a coherent body of literature.

The publication of a special issue in 2006, republished the same year as an edited book, turned out to be an important step forward in the establishment of a proper field. Intentionally, a slightly provocative title was chosen: *Linguistic Landscape: A New Approach to Multilingualism* (Gorter, 2006a). The origins of this publication can be indirectly traced back as far as September 1998 when Ben-Rafael and Shohamy (1998) wrote a proposal for a two-year project on *Linguistic Landscape and Multiculturalism: The Case of Israel*. They linked their investigations explicitly to the concept of linguistic landscape as defined by Landry and Bourhis (1997). In December 1998, a revised proposal was written with a larger research team (Amara *et al*., 1998). The project included sampling areas in Israel and territories under the Palestinian National Authority (PNA). In December 2001, an internal report of the project was submitted (Ben-Rafael *et al*., 2001). Their data came from over 1,000 photographs of signs, which were coded according to a series of indicators, such as choice of languages, lexicon, grammar, order of appearance, amount of information, transliteration, translation, fonts and size of words. The quantitative descriptive analysis presented findings on the amount of Arabic, Hebrew, English and other languages in different Jewish and Arabic cities and towns.

Through personal contact with Elena Shohamy, the fieldwork in Israel became the example for an exploratory study in the summer of 2002 by the two authors of this book. It was our first endeavor into the study of the linguistic landscape of Donostia-San Sebastián. One year later, in September 2003, we set up a panel on The Linguistic Landscape, Multilingualism and Multiculturalism at the Third Conference on Third Language Acquisition and Trilingualism in Tralee, Ireland. At this occasion, we presented the outcomes of our first study of the signs in one street. The panel, which included Shohamy, became the basis for the special issue of the *International Journal of Multilingualism*. For the purpose of the special issue, we decided to develop our first study into a second investigation in which we compared the use of minority languages in the linguistic landscape of the Basque Country with Friesland in the Netherlands (Cenoz & Gorter, 2006). The outcomes of this study, together with the results of the project in Israel (Ben-Rafael *et al*., 2006), were complemented by studies of two colleagues who we knew were investigating the use of languages on signs in the contexts of Tokyo (Backhaus, 2006) and Bangkok (Huebner, 2006). All four studies focused on the distribution of languages on signs as well

as on other characteristics of bilingual and multilingual signs. Box 2.1 provides a short summary of these four now classic studies.

BOX 2.1 SUMMARIES OF THE FOUR CLASSIC STUDIES

(1) ***Ben Rafael et al. (2006) on Israel***

The article reports the main results of a project that focused on the visibility of the three major languages (Hebrew, Arabic and English) on private and public signs. Even though Hebrew and Arabic were both official languages at the time, Hebrew is the dominant language and Arabic has a marginal position being treated as a minority language. The study started from existing sociological theories for an analysis of the diversity of languages. The linguistic landscape has to be conceived of as a symbolic construction of the public space and power relationships are important. Not only power, but economic interests and identity markers also have to be considered in order to perceive linguistic landscapes as structured spaces. An important dimension is the contrast between 'top-down' and 'bottom-up' signs.

(2) ***Huebner (2006) on Bangkok, Thailand***

This is a study about what Huebner labels *environmental print* in 15 different neighborhoods of Bangkok, a huge metropolitan area. Quantitative data are reported on differences between neighborhoods in their use of various languages and scripts, which include Thai, Roman, Chinese, Arabic and Japanese. The distribution of Thai on signs and its dominance are important. The study offered evidence that the city's major language of wider communication was shifting from Chinese to English. Questions of language contact, mixing, change and dominance are explored on individual signs. Examples of signs demonstrate creative ways of language mixing or hybridization. English has a strong influence on the development of the lexicon and grammar of the Thai language, including on the Thai script. The data raise questions about the consequences of the spread of English in the linguistic landscape. Based on his findings, Huebner (2006: 50) even calls into question the notion of a speech community, and 'what constitutes a language itself'.

(3) ***Backhaus (2006) on Tokyo, Japan***

The article focuses on the distinction between official and non-official multilingual signs. Backhaus (2007) used the concepts of power and solidarity to interpret the different characteristics of two types of signs and to show how languages are used and how they are arranged on the signs. The article summed up some of the main outcomes of

his large-scale study. Multilingual signs are divided between official (25.4%) and non-official (74.6%). Only Japanese, English, Chinese and Korean are used on official signs, whereas 10 other languages appear on non-official signs. Official multilingual signs without Japanese are rare, but Japanese has no presence on one-third of multilingual non-official signs. English appears more frequently than Japanese on both types of multilingual signs, but Japanese dominates the linguistic landscape of the city because monolingual signs were not included in the quantitative analysis. In the article, Backhaus includes issues of translation and code preference.

(4) ***Cenoz and Gorter (2006) on the Basque Country and Friesland***

The article summarizes the outcomes of the study in which we compared the languages on the signs in one central shopping street, the Bulevard, in the city of Donostia-San Sebastián, the Basque Country, to a similar street, the Nieuwestad, in Ljouwert-Leeuwarden, the capital of Friesland in the Netherlands. We analyzed quantitative data about the number of languages on each sign, which languages were used and various characteristics of bilingual and multilingual signs.

The two linguistic landscapes are similar, because the signage includes a unique minority language (Basque or Frisian), a dominant language (Spanish or Dutch) and English as a global language, in addition to instances of other languages. In Donostia-San Sebastián, 55% of all signs are bilingual or multilingual and in Ljouwert-Leeuwarden it is 44%. Basque has a presence on 46% of all signs, on its own or in combination with other languages, and Frisian has a presence on 5%. This difference is an effect of language policy and attitudes. English on signs was less prominent in Donostia-San Sebastián than in Ljouwert-Leeuwarden. The resulting multilingual impression of the linguistic landscapes is quite different (see Figure 4.8).

This collection of four studies demonstrated, among others, that signage often creates a multilingual impression. The articles further made clear how the analysis of a linguistic landscape can provide new insights into English as a global language, because it contributed in important ways to the multilingualism of signage in Israel, Bangkok, Tokyo, the Basque Country and Friesland. Further, the studies provided evidence that minority languages such as Arabic, Basque and Frisian were less visible than majority languages such as Hebrew, Spanish and Dutch. The visibility of minority languages and the role of English did become recurring themes in numerous later linguistic landscape studies. In a certain sense,

minority languages and English can be seen as the lower and higher end of a language hierarchy (see Chapters 7 and 9). The studies further showed how the linguistic landscape of a specific city or area can mark the geographic space inhabited by different groups. It indexes a sociolinguistic reality that touches on the relationships between people living in such a specific area and beyond. The linguistic landscape can reflect the status of different languages in society, and it can act as a force shaping how languages are perceived and used by the population. In a summing-up chapter that was later added to the collection, Gorter (2006b) sketches further possibilities for linguistic landscape research and argues for 'multiple perspectives', including a link with language policy research.

The collection drew the attention of other researchers and turned out to be pioneering work. Perhaps the reason is not so much because it was 'a new approach to multilingualism', but because public signage was 'simply an often neglected source of sociolinguistic data' (Huebner, 2016a: 2). The discovery of this rich source of data meant that the four articles became widely cited and they created a springboard for the rapid expansion of the field in later years. So much so that Tufi and Blackwood (2010: 208) considered them 'key texts of the linguistic landscape canon' and Van Mensel *et al*. (2016: 425) referred to the collection as 'one of the first impetuses for the establishment of a proper field of linguistic landscape (studies)'. Bagna *et al*. (2021: 352) argued that 'already from these first studies the importance of LL emerges as a fundamental tool for a better understanding of urban multilingualism'. Bolton *et al*. (2020: 283) called the collection 'arguably the first detailed study of linguistic landscape from a broadly-based sociolinguistic perspective'. In later chapters, we refer again from time to time to these four by now 'classic' articles of the field.

2.4 Growing Momentum

The four classic studies may have been an eye-opener, but the groundwork for the field was further prepared by special panels at international conferences, such as the American Association of Applied Linguistics (AAAL) in Portland in May 2004, the European Second Language Acquisition (Eurosla) in Donostia-San Sebastián in September 2004 and the International Association of Applied Linguistics (AILA) in Madison in July 2005. Those events attracted increasing numbers of researchers who had carried out their own linguistic landscape work. Two panels at the Sociolinguistics Symposium 16 in Limerick, Ireland, in July 2006 stand out in particular, because a panel on Linguistic Landscape: Advancing the Study of Multilingualism and a second panel on Semiotic Landscapes, Tourism, Mobility and Globalisation laid the basis for two edited collections: Shohamy and Gorter (2009b) and Jaworski and Thurlow (2010). The two books brought together 35 chapters by 40 contributors.

Interestingly, there is some overlap because four authors contributed a chapter to both books (Kallen, Pennycook and Shohamy & Waksman). Most of these contributors became part of the group of researchers who paved the way for the field's further rapid expansion. The two books and various individual articles published around the same time (among others, Coupland & Garrett, 2010; Franco Rodriguez, 2009; Ivkovic & Lotherington, 2009; Leeman & Modan, 2009; Lou, 2007; Pavlenko, 2009) suggested how innovative linguistic landscape research could be done. The contents of the book chapters and the articles demonstrated great variation in theoretical and methodological approaches and a substantial linguistic and geographic diversity. As will be seen, heterogeneity remains today a characteristic of theoretical approaches (see Chapter 3).

The panels at international conferences as well as the annual Linguistic Landscape Workshop, since the first in January 2008 in Tel Aviv, have helped to strengthen and enlarge a community of researchers who share an interest in the study of public signage and multilingualism in urban contexts. The annual workshops have resulted in a number of edited books; however, not the first workshop (see Box 2.2).

BOX 2.2 A DETAIL ON THE HISTORY OF THE FIELD

As mentioned, the first linguistic landscape workshop took place in Tel Aviv in January 2008, but the workshop did not result in the book edited by Shohamy and Gorter (2009b). The text in the introduction to the book has led to a misunderstanding that has been repeated in the literature, among others, by Blackwood *et al.* (2016), Huebner (2016a) and Amos and Soukup (2020). To avoid future repetition of this factual error, we can explain how it came about.

The text in the introduction mentions 'a conference held in Tel Aviv devoted exclusively to LL, where many of the chapters of this book were presented' (Shohamy & Gorter, 2009a: 2). Obviously, this makes readers think that the book was based on the first workshop. How has this incorrect statement ended up in the book?

As it turns out, during rewriting and copy-editing a few small, but essential changes were made to the draft. In an earlier version of the manuscript (dated 10 March 2008) the draft text plainly states 'a workshop/conference exclusively devoted to the topic of LL met in Tel Aviv in January of 2008'. In the next version (dated 14 March 2008) a second part was added to the same sentence: 'and related to some of the chapters in this book'. That text renders the facts correct because most authors of the book indeed contributed to the workshop and spoke about similar topics. However, in the final version, after copy-editing by the publisher, three minor, but crucial changes were made: 'workshop' became 'conference', 'some' changed into 'many' chapters and 'related

to' into 'were presented'. It was just not correct that the chapters were presented and the program of the workshop shows the different titles of the presentations. These small changes in the final draft seem to have slipped through.

External factors make it rather obvious that the book cannot be the outcome of the first workshop in Tel Aviv. In the main text above, we already mentioned that the idea for an edited book arose at the Sociolinguistics Symposium in Limerick, Ireland, in July 2006. A book proposal, including the names of the authors and the titles of their chapters was sent to the publisher in January 2007, thus one year before the first workshop. All chapters for the book were ready by December 2007, except the introduction. A book launch took place at the AILA conference in Essen, Germany, in August 2008. The publisher's website states that the eBook was published on 25 August 2008 and that it was first published in 2008. Probably that is the reason why the book has sometimes been referenced as 2008, although the book has an imprint of 2009. This minor detail, with unintended consequences, illustrates the difficulties of writing a history of the field.

Since 2015, a dedicated journal, *Linguistic Landscape*, has been published three times a year. In addition to the publications mentioned, numerous articles have appeared in widely dispersed journals, as well as single chapters in edited volumes, special journal issues, specialized handbooks and encyclopedias. In Chapter 1, we mentioned the exponential increase in the number of publications in recent years, which is a clear demonstration of the rapid growth of the field.

While the study of linguistic landscapes started with a limited assortment of unrelated projects and publications, now looking back, we can observe that the early work was exemplary in that it demonstrated how analyzing language on signage in public spaces can provide exciting information and produce innovative insights. The early studies showed how hybrid forms of local and global varieties are created, how some dominant language groups exert power over others, the influence of language ideologies, the importance of expressing identity through signage and how official language policies can be challenged through signage.

In contrast to some of the early studies, linguistic landscape research no longer focuses so much on dichotomies such as top-down versus bottom-up or private versus official signs. As we will see in later chapters, the analysis of the language used on signs in public spaces becomes especially valuable when related to other data sources such as oral language practices, multimodal dimensions and language legislation and policy. Research has uncovered new emerging patterns, and signage can interact, for example, with ways to manipulate languages to maintain power.

The emphasis in most linguistic landscape work has been on examples of static and fixed signs even though in public spaces a much larger variety of signs can be encountered. Non-static, dynamic and moving signs deserve attention, for example, texts on cars, buses and bicycles, and also on T-shirts, bags and bodies. The screens of mobile phones are a relatively recent addition to linguistic landscapes where people who are looking at a small screen have become a common feature of modern street life (Figure 2.7).

In an overview of the field, Shohamy (2015) pointed to some crucial findings that have given shape to the field. She argues that, first, linguistic landscapes are systematic and consistent, not random or arbitrary. Second, that the linguistic landscape is a theoretical construct on its own based on and related to various existing theories and concepts, including globalization and multilingualism. Finally, that linguistic landscape has a broader scope which includes multimodality and components such 'images, photos, sounds (soundscapes), movements, music, smells (smellscapes), graffiti, clothes, food, buildings, history, as well as people' (Shohamy, 2015: 153–154).

Linguistic landscape studies have usually focused on written texts, but limiting the research to the visible or readable elements, in contrast to audible language, may be problematic because the boundaries between written and spoken language become diffuse. As we saw in Chapter 1, Shohamy and Waksman (2009) proposed an all-inclusive conception of the linguistic landscape, although others might object that the concept may run the risk of losing its focus when 'everything' becomes linguistic landscape and therewith may lose its explanatory power. In order to describe what makes up the field of linguistic landscape studies today,

Figure 2.7 People with handheld screens

we argue that the majority of studies focus on the language-related characteristics of public signage, even if many other issues can be included. We are aware that the field has fuzzy boundaries and we start from a broad definition of what can be *linguistic landscape* (see our discussion in Chapter 1). A simple approach would be to determine the scope based on publications in the only journal dedicated to the field or to count only the items included in the Zotero Linguistic Landscape Bibliography (Troyer, 2022), but in any case there are no easy solutions.

2.4.1 Waves and turns

In describing the development of the field, some authors have argued that there have been 'waves' of studies or that the field has taken a 'turn'. Even if used as a metaphor, a series of waves implies an idea of successive stages over a period of time, as well as higher and lower points: a wave has a crest and a trough. The word turn involves a substantial change of direction or orientation, also in the abstract sense. However, as we will argue, the development of linguistic landscape studies has not followed such a clear path.

Among others, Lamarre (2014: 136), Lanza and Woldemariam (2014a: 62), Woldemariam and Lanza (2015: 177), Amos (2016: 131), Kerry (2017: 210), Banda and Jimaima (2017: 601) and Amos and Soukup (2020: 57) all refer to a 'first wave' of linguistic landscape studies. For example, they point to the circumstance that 'many studies use distributive analysis of languages on public signs to determine the presence and dominance of languages' (Lamarre, 2014: 136) and to studies where 'the emphasis [is] on a quantitative distributional approach to the documentation of signs' (Woldemariam & Lanza, 2015: 177). Amos (2016: 131) described it as: 'Following the empirical surveys of the so-called "first wave" […], much of the LL work carried out over the last five years exhibits a preference for qualitative approaches to data collection and analysis', and he thus leaves the second wave more implicit. Others have done so as well, for example, Banda and Jimaima (2017: 601) place their own work in a 'new wave' with 'a focus on multimodality and qualitative ethnographic methods of data collection' (although see Barni *et al*., 2020: 355). So, the second wave seems to be similar to the 'qualitative turn' that some authors suggest the field has taken. Milani (2013a: 206), Moriarty (2014a: 460), Zabrodskaja and Milani (2014: 2) and Woldemariam and Lanza (2015: 177) all argue that linguistic landscapes studies have shifted largely or entirely toward qualitative approaches by taking a qualitative turn in contrast to earlier more quantitative studies (see Amos & Soukup, 2020: 57–59). These observations seem to be incomplete in two ways. On the one hand, the authors neglect the stream of publications in which quantitative methods are applied. On the other hand, it could equally well be argued that the origins of the field lay with

qualitative studies, such as the comparative analysis of the words on the walls of Dakar and Paris (Calvet, 1990), the historical analysis of bilingual street signs and the literacy model in Spolsky and Cooper (1991), the ethnography of reading shop windows in Ghent (Collins & Slembrouck, 2004), the model of multilingual literacy by Reh (2004) or our work on second language acquisition and linguistic landscapes (Cenoz & Gorter, 2008). It is not clear where or when a second wave arose or how such a turn was taken.

The idea of waves to describe the development of the field has been taken furthest in the overview of Bolton *et al.* (2020). They distinguish three waves and remind us of the three waves in studies of linguistic variation by Eckert (2012, 2021). Bolton *et al.* present three waves labeled in short as 1st quantitative, 2nd qualitative and 3rd critical. Their division is largely based on the preface from the edited collection by Blackwood *et al.* (2016: xvii). In an elaborate effort, Bolton *et al.* categorize a number of (edited) books under each of the three waves. For them, the first wave studies share a quantitative approach, the description of signs is linguistic rather than semiotic and the studies are mainly interested in multilingualism. The first wave is composed of five books: Gorter (2006b), Backhaus (2007), Shohamy and Gorter (2009b), Shohamy *et al.* (2010) and Gorter *et al.* (2012a). The authors subsequently acknowledge that the second wave is somewhat artificial and not clear-cut, but they use it for studies published after 2010 'claiming to adopt a much wider view… and challenging the earlier research paradigm' (Bolton *et al.*, 2020: 284). Second wave studies are supposed to be more qualitative or ethnographic and emphasize semiotics and multimodality. They include seven (edited) books: Jaworski and Thurlow (2010), Blommaert (2013), Blackwood and Tufi (2015), also Pennycook and Otsuji (2015) (although that book admittedly only deals in part with linguistic landscape), Peck *et al.* (2019; incorrectly referred to as Stroud, Peck and Willams, 2018), Pütz and Mundt (2019a) and Ben-Rafael and Ben-Rafael (2019). Classifying the books in this way ignores the fact that, for example, the monographs of Blackwood and Tufi and of Ben-Rafael and Ben-Rafael are to a large degree based on quantitative data. For Bolton *et al.*, the third wave is concerned with political and social conflict, protest, identity and social justice. Here they include just two collections: Rubdy and Ben Said (2015) and Blackwood *et al.* (2016). In a special section outside of the three waves, they write about the book by Scollon and Scollon (2003) on geosemiotics as a remarkable exception, which they claim 'has had an immense impact on linguistic landscape studies' (Bolton *et al.*, 2020: 286). In conclusion, they admit that the idea of three waves is 'not unproblematic given the frequent overlap and leakage between first and second, and second and third waves' (Bolton *et al.*, 2020: 297). It is not just that, the problem is also that their categorization is only based on books, some of which are collections of papers based on annual linguistic

landscape workshops and thus almost by definition include a wide variety of approaches.

The overlap and leakage mentioned can perhaps best be demonstrated by the two edited books of Shohamy and Gorter (2009b) and Jaworski and Thurlow (2010). We already remarked that the idea for the books originated in the same year, 2006, from two panels at the same sociolinguistics conference in Ireland, so the studies coincide in time. The difference in the year of imprint is caused by the handling of the manuscripts. As mentioned, there is an interesting overlap between the two books. Kallen writes on tourism in one chapter and on changes in the linguistic landscape of Dublin in the other; Pennycook writes on graffiti in both chapters, but from different perspectives, and Shohamy and Waksman analyze in their two chapters the Ha'apala memorial in Tel Aviv but from different perspectives. All chapters are clearly different in content, but at the same time given their theoretical and methodological approaches it is difficult to see how they could be classified as belonging to different 'waves'.

Some edited collections are missing from the Bolton *et al.* overview (Blackwood & Macalister, 2019; Castillo Lluch *et al.*, 2019; Hélot *et al.*, 2012; Laitinen & Zabrodskaja, 2015; Martín Rojo, 2016) and it would indeed not be so easy to classify them under the three waves. Not mentioned are the special issues of journals (Bolton, 2012; Gottlieb, 2010; Huebner, 2016b; Järlehed & Jaworski, 2015; Laihonen & Szabo, 2018; Moriarty, 2014a; Moriarty & Järlehed, 2019; Zabrodskaja & Milani, 2014) and the monograph by Lou (2016a) on Chinatown. These missing data undermine the effort of Bolton *et al.* to characterize the field as having gone through three waves. A final argument against the idea of waves is that it suggests chronology and that there will be a succession of one wave after another. From the above it seems obvious that this is not the case in the field of linguistic landscape studies.

What is probably missing the most from a categorization into waves is an analysis of the hundreds of publications as single articles or book chapters in a great variety of sources. It is remarkable that Bolton *et al.* (2020) refer to the impressive range of different languages that are dealt with in the 34 articles of the first four volumes (2015–2018) of the *Linguistic Landscape* journal, but unfortunately they have not tried to classify those same articles according to contents into the three waves. Overall, the overview by Bolton *et al.* is an interesting exercise and provides an adequate, if incomplete overview of the field. They demonstrate more awareness than some others of the pitfalls and shortcomings of this type of classification work. One of the major problems remains that it only covers a limited number of 14 books, with a total of some 100 chapters, which implies the exclusion of around 90% of all linguistic landscape studies that were published in other sources until 2020 (as said, the

Zotero Linguistic Landscape Bibliography has over 1,250 entries; Troyer, 2022). The challenge to categorize all of those publications remains open. Our idea is that the development of the field is best described as exponential growth and not in terms of waves or turns. There are no rapidly rising (or falling) approaches or sudden changes of direction. At most there is a broad variety of overlapping directions because the inherent heterogeneity of the field defies simple classification.

2.5 Concluding Remarks

Looking back at the history of this relatively young field, the following question can be asked: What is the value or significance of these precursor studies? Indeed, most of those publications were more or less isolated studies, unrelated among each other, although as we have shown, there was some unexpected cross-referencing. In general, most of the precursor studies were part of a larger project and its authors were not working with an idea of contributing to linguistic landscape studies as an approach, method, specialization or a field of studies.

The value of the publications by Rosenbaum *et al.* (1977) and by Nadel and Fishman (1977), even if part of a large-scale project into the spread of English, is that for later linguistic landscape studies these researchers showed a method of making an inventory of the signs in one street and pointing at the snob appeal of English; both their method and their idea were picked up by later researchers. The work of Spolsky and Cooper (1991) has a full chapter on linguistic landscape and remains important for the inception of a theory of language choice and for their qualitative analysis of the historical dimensions of signs. Their publication is an example of thorough work on signage and they gave details of all signs collected. Their primary aim, however, was a sociolinguistic study of multilingualism, and they did not aim to look into the linguistic landscape of the city *per se*.

The study of bilingual signs in Brussels by Tulp (1978) was her master's thesis carried out in the framework of a multiannual project on 'Language and Integration'. The larger project resulted in an impressive series of 13 books published between 1978 and 1989 (Witte, 1989). The significance of Tulp's study for the linguistic landscape field is not so much the systematic collection of a substantial corpus of signs, or her method of following lines of public transport that was repeated in later investigations. Its significance is also not in her interviews with workers of advertising agencies, an aspect that got little attention from others. The reason her study gained significance was chiefly because of the partial replication by Wenzel and later again by Vandenbroucke. This made it possible to obtain insights into the diachronic development of Brussels' linguistic landscape over a period of almost 40 years, which is thus far a rather unique achievement.

The work of Landry and Bourhis has to be situated within the framework of ethnolinguistic vitality theory and their main aim was to contribute to that approach. They worked in the context of the conflict between the French community in Quebec and the English majority in Canada. One of the focal points of that struggle was the linguistic landscape (in advertising and other public signs) and the efforts to curb the spread of English through language legislation. The value of the Landry and Bourhis' article seems to lie not so much in providing an additional building block for the ethnolinguistic vitality framework, even though, as we saw, there was follow-up work in that direction. The authors were able to direct the attention of future researchers toward an aspect of ethnolinguistic vitality theory that was hitherto largely ignored. Its value probably lies even less in the fine example of secondary statistical analysis of combining existing survey material. For linguistic landscape studies, their most remarkable achievement has been the provision of an easy to understand, shorthand definition of what a linguistic landscape is. Furthermore, the article continues to be important in terms of its fascinating reflections on the distinction between the informational and symbolic functions of signage (see Chapter 3). Through those ideas they have influenced and given direction to later work.

Landry and Bourhis (1997) placed linguistic landscape at the center of their article, but it could still have remained relatively isolated if it had not been noticed as an object of further investigation and picked up by other researchers. Among those early adopters, Ben-Rafael, Shohamy and colleagues in Israel stand out, along with some linguistic landscaping researchers in India and Backhaus for his PhD thesis (and later book) on Tokyo. The large-scale study by Backhaus is noteworthy today as a foundational monograph in the field, exclusively dedicated to the linguistic landscape and his exhaustive overview of a nascent field at the time is worth re-reading.

The articles in the early 2000s in *English Today*, the conference proceedings in India, the incidental publications by Hicks, Hult, Collins and Slembrouck, and Reh were all a kind of singular event that did not immediately lead to any further or follow-up work, with the exception of the influential book on geosemiotics by Scollon and Scollon. The dispersed publications dealt with language use on signs in public spaces, but it seems more like the authors had stumbled upon the topic by coincidence or as part of a larger project. For example, for his analysis of Scottish Gaelic signs, Hicks (2002) quoted Landry and Bourhis extensively, but his paper would probably have remained an isolated (published) conference presentation until his work was discovered and was regularly quoted from 2006 onwards when the field started to gain some traction.

The real turning point came with the publication of the special issue, republished as a book, with linguistic landscape as its main title. The early publications mentioned above were indications that something

was already brewing and there was a growing interest among individual researchers from various countries who were working on a project or had presented a paper at a conference. In hindsight, the value of the special issue/book is that it brought together four different studies from very different places that shared a similar focus on written language in public spaces and that as a whole could demonstrate that this could become a field of study with the potential to stand on its own. Issues about theory and methods discussed in the collection turned out to be relevant for other researchers who were probably already interested. There was a shared emphasis on a quantitative approach in all four studies, but they went much further than the simplification that it was merely 'counting languages on signs' because of the qualitative aspects of the analysis. The application of existing theories turned out to be challenging; compiling a sample of signs and establishing a definition of the unit of analysis was problematized; and the coding schemes of signs were already quite elaborate. The issues discussed included language contact and mixing, identity, power and solidarity, translation, language policy, the spread of English, the visibility of minority languages and, in particular, multilingualism. Those were all topics that have come back in numerous later publications. It seems that the publication struck a chord among an increasing number of researchers and it resonated with their interest in investigating the signs in their own cities and other places. Signs as data were readily available and they could easily be recorded on small digital cameras. The concept of linguistic landscape was thus picked up by researchers who were working in sociolinguistics, applied linguistics, language policy studies and other specializations. They could show that the display of written language in public spaces was largely neglected in their own subfields and by doing so they could draw increasing attention to their work. The field itself has moved from the six types of signs of Landry and Bourhis (1997) to include the widest possible elements or discourses available in public (and non-public) spaces. It has moved from mainly fixed signs to include among others, moving signs on T-shirts, inscriptions on bodies, transient protest signs in demonstrations and continuously changing digital screens. Those developments indicate the innovations and cross-disciplinary work that has been carried out. We will discuss the theoretical approaches in Chapter 3.

3 Theoretical Approaches: A Range of Perspectives

3.1 Introduction

Researchers do not come as a 'blank slate' to the field of linguistic landscape studies, but they usually take their own specialization as their point of departure. In the investigations of the display of language in public spaces, a broad range of theoretical approaches can be found. Researchers bring their theoretical constructs, concepts, ideas, notions, frameworks and models from various disciplines. Sociolinguistics and applied linguistics predominate, but others such as sociology, linguistics, cultural geography, semiotics, onomastics and history also have a presence. This is a list to which other specializations could easily be added because of their relevance for the issues studied.

As we will see in this chapter, various perspectives have demonstrated their value and have contributed to a better understanding of the display of languages in public spaces. It should come as no surprise that the field is theoretically heterogeneous and a substantial amount of work is characterized by interdisciplinarity.

In the early stages of the emerging field, Spolsky (2009a: 32) observed 'no clear consensus has yet developed on methodology or theory'. He suggested relating the study of public signage to the general study of signs, semiotics or to the study of literacy. He signaled the state of literacy in a community as a first problem for this type of study. As we have seen in Chapter 2 together with Cooper, some years earlier, he had proposed a 'conditions model' with three rules for language choice on signs (Spolsky & Cooper, 1991). As a second problem, Spolsky pointed to the issue of agency, that is, the process by which a sign is produced. He distinguished four agents: the initiator or owner of the sign; the sign maker; the reader; and the language management authority. He made an important connection with his own language policy framework which incorporates policy, practices and beliefs (see Chapter 8). More recently, Spolsky (2020) again strongly advocated the further theoretical development of the field and he warned against superficial studies. As we mentioned in Chapter 1,

Spolsky argues that linguistic landscape studies could become a branch of semiotic theory.

Evidently, during recent decades the field has grown exponentially, but it did not establish a theoretical canon. The large number of studies are not based on, nor have given rise to one overarching theoretical framework. Looking back at the early development of the field, Huebner (2016a) lays out at least nine theoretical perspectives in early publications. Many specializations have, in one way or another, given new insights into or provided a deeper knowledge about signage and language in public spaces. In their overview of the field, Van Mensel *et al.* (2016) emphasize this theoretical kaleidoscopic nature. Taken together, it may seem that such a multitude of theoretical perspectives leads to fragmentation and that it is time to create more coherence for the field. For example, Canakis (2019: 269) thought that the kaleidoscopic nature of the field was problematic, arguing that 'the various - and often disparate - strands can be tied up together in more coherent theoretical proposals'. Of course, it seems important to further develop and strengthen existing theoretical frameworks and concepts, but even if studies have remained multifaceted, we can also see this as enriching for the field. In our conviction, the many-sidedness of linguistic landscape studies has thus far had more advantages than disadvantages by allowing for multiple perspectives. The field extends in many directions and has fuzzy outlines, but this does not seem to hinder productivity or the flourishing of a variety of ways to carry out research.

Our reasoning is that it does not have to be problematic that the field of linguistic landscape studies is continually shifting. The heterogeneity of theoretical approaches and concepts, where none is dominant or stands out, can be taken as a given that has to be embraced and it has to be conceived of as an asset rather than a liability. It is unlikely that there will be one theory par excellence or a unified theory that is uniquely suited to analyze all the complexities of signage in public spaces. As it stands now, the plurality and diversity of the field of linguistic landscape studies have many advantages and provide the field with some strong points. Furthermore, as we already observed, in spite of the fact that there is a good deal of variety in the disciplinary background of researchers, most of the work can be characterized as falling within sociolinguistics and applied linguistics.

In order for the field to develop theoretically, it needs to continue to make use of the frameworks and concepts of different disciplines. The field has a varied character, it is complex and develops rapidly, which implies that today many different approaches come under its umbrella. Linguistic landscape research raises interesting questions not only as to who produces and who puts up what sign(s), where, with what characteristics of material, size, etc., using what language(s), but also who reads those signs, who is influenced by them and, last but not least, why or why

not? See also our proposal for a holistic approach in the multilingual inequality in public spaces (MIPS) model in Section 3.11.

Overall, linguistic landscapes have great heuristic potential. Ben-Rafael *et al.* (2006: 27) argued that its effect was to 'point out patterns representing different ways in which people, groups, associations, institutions and government agencies cope with the game of symbols within a complex reality'. As we said before, linguistic landscape studies deal with language in the widest sense, including multimodal and design aspects. After all, looking through a specific disciplinary lens at, or applying a set of theoretical concepts to a specific theme often leads to innovative work which is important to answer the most relevant research questions.

From the foregoing, it has probably become clear that we do not think there is going to be one preferred or dominant theoretical framework for this field. In the rest of this chapter, we present examples of theoretical frameworks and constructs that have been successfully applied in linguistic landscape studies because we think that building on these examples can be useful for future studies. We can describe only a few of the main approaches that have been applied in the field, which we certainly do not want to claim to be complete. We mention those that stand out the most or are interesting for some reason. The discussion of several other concepts and ideas is left for later chapters, more in particular theories and concepts related to multilingualism (Chapter 6), the visibility of minority languages (Chapter 7), language policy (Chapter 8), English and globalization (Chapter 9) and educational contexts (Chapter 10). In Chapter 11 on names, an explicit link is made with the discipline of onomastics. In Chapter 4, we establish relationships with specific theoretical concepts, especially when discussing qualitative methods.

In this chapter, we first discuss theoretical work grounded in social sciences, and we begin with ethnolinguistic vitality (Section 3.2); then we then discuss some existing sociological concepts (Section 3.3), frame analysis (Section 3.4), geosemiotics (Section 3.5) and how spaces were theorized by Lefebvre and Foucault (Section 3.6). Second, we discuss a few more linguistic perspectives such as pragmatics (Section 3.7), contact linguistics and language variation (Section 3.8). Thereafter, we mention briefly the relevance of history as a disciplinary lens (Section 3.9) and some additional disciplines such as economics, cultural geography and policy studies (Section 3.10). In the pre-final section, Section 3.11, we present our own model of MIPS, as an encompassing proposal for linguistic landscape studies. Finally, in Section 3.12, we draw some conclusions about the theoretical nature of the field.

3.2 Ethnolinguistic Vitality

Ethnolinguistic vitality theory was an important part of the study by Landry and Bourhis (1997), as we mentioned in Chapter 2. Their ideas

go back to a model that was developed in social-psychology in the 1970s. According to Giles *et al.* (1977: 308), the vitality of an ethnolinguistic group is 'that which makes a group likely to behave as a distinctive and active collective entity in intergroup situations'. To measure this vitality, they distinguish three structural factors: demographics, institutional support and status. Each factor is divided into various variables and together they determine the objective vitality of a group. It means that in an intergroup context, the more vitality a group has, the more likely it will survive, which of course seems rather obvious. Later, Bourhis *et al.* (1981) added the notion of subjective ethnolinguistic vitality and argued that the perceptions of vitality by the members of a group may be as important as the objective vitality. Over the years, the model has been developed further, as described in Bourhis *et al.* (2019).

Starting from the original vitality model, Landry and Allard (1992) developed a more elaborated model of the determinants of bilingualism. In this new model, they distinguish a sociological, a social-psychological and a psychological level. They place ethnolinguistic vitality at the sociological level, which includes demographic, political, economic and cultural capital. At the sociopsychological level, the central element is the individual network of linguistic contacts. At the psychological level are the vitality beliefs, ethnolinguistic identity and language behavior. The outcome of the model is additive or subtractive bilingualism. This elaborated model was then further modified by Landry and Bourhis (1997), who introduced at the social-psychological level an additional variable which they call 'contacts with the linguistic landscape'. In this way, the linguistic landscape becomes a separate dimension that influences vitality, which is the focal point of their article. As they observe, 'the linguistic landscape may act as the most observable and immediate index of the relative power and status of the linguistic communities inhabiting a given territory' (Landry & Bourhis, 1997: 29). Thus, the linguistic landscape can play an important role in consolidating the vitality of an ethnolinguistic group.

In their discussion of the concept linguistic landscapes, Landry and Bourhis added the distinction between the informational and symbolic function of languages used on public signs, a distinction that became important for later research. The informational function of signs serves as a visible marker of the limits of the geographic territory of the language community as well as indicating the language that can be used to communicate when obtaining a service. The linguistic landscape can also give information about the sociolinguistic composition of an area, where it can reflect the relative power, status and diversity of language groups. The symbolic function, on the other hand, is related to the feelings of speakers in multilingual contexts because it can give an indication of the strength or weakness of an ethnolinguistic group. The presence or absence of languages on signs can have an effect on their identity.

Soon after Landry and Bourhis (1997) introduced linguistic landscape as a factor of ethnolinguistic vitality, other researchers working with the same framework followed up on their ideas by also including linguistic landscape as a separate factor. These were, among others, Barker *et al.* (2001) and Dailey *et al.* (2005), which we mention in Chapter 2. Later, various researchers applied the framework of ethnolinguistic vitality to their linguistic landscape investigations. This was the case, among others, in the study by Franco Rodriguez (2009, 2011) who compared Los Angeles and Miami Dade-County in the United States and in the studies by Kasanga (2010, 2012) in the Democratic Republic of Congo and in the city of Phnom Penh in Cambodia. Kasanga (2010: 183) confirmed that 'the dominance of a code… has the potential to influence the perceptions of the vitality of a language'.

3.3 Some Sociological Concepts

In their classic study, Ben-Rafael *et al.* (2006) introduced a number of concepts to the field of linguistic landscapes that are well-known in sociology. They could demonstrate how existing sociological notions are useful for the analysis of the objects that mark public spaces. The basic idea is to see language facts as *social facts* (a notion of sociologist Emile Durkheim) which can be related to general social phenomena. In this perspective, the linguistic landscape can be conceived of as a structuration process or as the symbolic construction of the public space. This is related to four principles: (1) the good-reasons perspective of Boudon; (2) the perspective of power relations of Bourdieu; (3) the principle of collective identity; and (4) the presentation of self of Goffman. The following additional explanations can be given. The good-reasons perspective considers that clients make rational considerations of costs and benefits in which signage plays a role and this involves a calculation of alternatives for their behavior. Power relations in the theories of Bourdieu help to explain not only the use of different languages on signage in terms of dominant and subordinate groups, but also in the differences between signs placed by authorities, which they control, and signs put up by others where the authorities may have less control. Finally, the 'presentation of self' comes from a perspective of subjective perception. In social settings, actors try to achieve their goals by displaying a favorable image to others. It is an important principle because signs in public spaces compete with each other for the attention of passersby so as to become attractive for different actors in different ways.

Each of these four perspectives is theoretically relevant for carrying out empirical research in the linguistic landscape because each emphasizes a different dimension of rational interests, power relations or marking the identity of actors. Even if the linguistic landscape appears chaotic at first sight, passersby or other actors will perceive it as a configuration,

as one whole, or as a *Gestalt* as Ben-Rafael refers to it. For Ben-Rafael *et al*. (2010), the social scientific view of the linguistic landscape can include insights from the Chicago School of Urban Sociology and ideas about public space associated with the work of Habermas. The latter sees the public sphere as a buffer between the state and the private sphere. In particular, the commercial linguistic landscape becomes increasingly cosmopolitan under the influence of globalization (Ben-Rafael & Ben-Rafael, 2019). These sociological ideas were applied in one of the early linguistic landscape studies which aimed to investigate the degree of visibility of Hebrew, Arabic and English in Israel (Ben-Rafael *et al*., 2001, 2006; Ben-Rafael, 2009; see Chapter 2).

In more recent work by Ben-Rafael and Ben-Rafael (2015, 2016, 2019), these sociological ideas culminate in a model of multiple globalizations. Based on a study of linguistic landscapes in eight world cities, their model distinguishes three movers of social reality: globalization, multiculturalism and the national principle. Globalization is an external force that is pushed by multinational companies and consumerism and is displayed in linguistic landscapes through English as the lingua franca and through so-called big commercial names (BCN), which are the names of firms, shops or other establishments that can stand without further specification (see Chapter 11 on names for further discussion). Multiculturalism is the outcome of processes of migration and long-distance transnational diasporas reflected in the linguistic landscapes through ethnic or vernacular languages. The national principle or the influence of the nation state, modernity and nationalism support the official state language(s). The three movers lead to not only convergent but also divergent linguistic landscapes in the downtowns and in the various neighborhoods of world cities. The three movers lead to a unique configuration of linguistic items in each city, hence the term *multiple* globalizations.

Another set of sociological concepts was introduced by Stroud and Mpendukana (2009), who draw on Bourdieu's work on taste by distinguishing between what they label as *sites of necessity*, which display ordinary daily products, and *sites of luxury*, where expensive products are advertised. In a later publication, they were also called signs of low and high investment (Stroud & Mpendukana, 2012). Because the distinction is sometimes blurred, there are also *sites of implosion*, where signage consists of blended forms, hybrids and linguistic fragments. Lanza and Woldemariam (2014b) used Stroud and Mpendukana's ideas to analyze brand names and English in sites of luxury in the linguistic landscape of Addis Ababa. They report that the use of English and international brand names has a high value and is associated with distinction, luxury and modernity (Lanza & Woldemariam, 2014b). The same distinction has been referred to by other researchers of linguistic landscapes. Vandenbroucke (2016) applied the concepts to her analysis of the stratification of English in Amsterdam and Brussels in upscale, midscale and downscale

shopping spaces. Álvarez-Mosquera and Coetzee (2018) used it to shape their theoretical framework and try to expand the notions in their investigation of perceptions of the linguistic landscape in a township in South Africa. Jaworski (2019) looked into how silence is represented in commercial spaces and links the notions to the economic stratification of different locations. We discuss the influential ideas of Stroud and Mpendukana (2009) on the material ethnography of multilingualism in Chapter 6 (Box 6.2).

3.4 Frame Analysis

Goffman (1974) developed his theory of frame analysis based on the question: 'What is it that's going on here?'. His answer is, in short, that through their experiences, individuals gain competence to make interpretations, or frames, which they use to read and give meaning to the context of situations. Goffman intends to describe the dynamics of social situations with those 'frames'. His frame analysis is an element of ethnographic research that enables him to analyze or read identifiable chunks of social behavior and to understand the frames that people apply to make sense of their behavior. Frame analysis has been adopted by many social scientific researchers and applied to a wide range of studies (Persson, 2019).

Coupland and Garrett (2010) applied frame analysis in their study of the linguistic landscapes of the Welsh-speaking language community in Patagonia in Argentina, where the dominant language is Spanish. In this community, the Welsh language is a reminder of migration in the past and, at the same time, Welsh is also a present link with Wales. The authors design three broad discursive frames to analyze various examples of text displays. They label these as (1) colonial history frame, for example, Welsh personal names in street signs such as 'Juan C. Evans'; (2) reflexive cultural Welshness frame, in reference to Welsh history and their presence in the area, for example, using the Welsh term *Cymru* to refer to Wales, or using in Spanish the 'torta galesa' ('Welsh cake'); and (3) Welsh heritage frame, in the specific sense of trying to be authentic and to promote historic or exotic qualities, for example, through commodified Welsh displayed in adverts for tea houses or shop displays. Coupland (2012) applied the same approach again in an analysis of language policy in Wales. There, he designed five competing frames to analyze how Welsh–English bilingualism is visually displayed, and which support different conceptions of a bilingual Wales. The dominant frame today is 'parallel-text bilingualism' with English and Welsh, with variations in the placement of the two languages: on the top or to the left. This occurs, for example, in street names, place names and formal announcements. This frame was preceded in time by the frame of 'non-autonomous Welsh', in which Welsh was relying on or subordinate to English. He further distinguishes the frame

Figure 3.1 Sign with longest place name in Wales

of 'nationalist resistance', which is for example, used for protests by local activists. The fourth frame is of 'Welsh exoticism', an example of which is using the longest place name in Wales (Figure 3.1).

Finally, the fifth frame is 'laconic metacultural celebration', a complex name that refers to the display genre on T-shirts where the Welsh language is commodified through a range of multilingual or numerical designs with more or less clear messages. Coupland (2012: 20) concludes that frame analysis 'allows us to see how language display can articulate different language-ideological stances and contests between stances'. We can see here that the application of frame analysis by the same author and related to the same language, Welsh, leads to two different sets of frames when applied in the two different contexts of Argentina and Wales.

Goffman's frame analysis was also the starting point for Kallen (2010) in his observations of important changes in the linguistic landscape in the city center of Dublin, Ireland. Kallen distinguishes five 'spatial frameworks', which he labels civic, marketplace, portals, wall and detritus zone. The official policy in Ireland is for bilingualism on signs with English and Irish. However, due to the influence of tourism, international businesses and immigrants, examples of other languages, such as Polish and Chinese, can also be found in each frame. In the same context of Ireland, Moriarty (2014b) discussed the language debate concerning the name of the town of Dingle. She focused on three ideological or discourse frames. The first she labels as the regulatory/infrastructure frame, which reflects the state's ideological position toward the Irish language. The second is the commercial discourse frame, which indicates the local community's ideology toward the Irish language. In this frame,

Irish becomes more a language to be seen or looked at, rather than to be read. The third is the transgressive discourse frame, which considers the conflicts between state and local language ideologies. In another publication, Moriarty (2012) analyzed the same name debate looking into the ideologies surrounding it, but without explicitly mentioning frame analysis (see Chapter 11).

Another application of frame analysis appeared in a study of linguistic inscriptions on tourist postcard images. In this study, Jaworski (2010) distinguished five 'interpretive frames' or functions in the relations between text and image. Although he refers to the frames developed by Coupland and Garrett (2010), he devised five specific frames for postcards: 'caption', 'greeting', 'spectacle', 'language learning and teaching', and 'tourist script'. Among others, he includes a description on a postcard of the same longest Welsh place name (see Figure 3.1) as Coupland (2012), but since the frames are different, the analysis is also different. The language used on postcards can be characterized sociolinguistically by, among others, the commodification of language, formulaic expressions, transformation of linguistic forms, code-mixing, playful language learning and translation of local languages. Jaworski and Yeung (2010) again use frame analysis as part of their investigations into the naming and images of residential buildings in Hong Kong. This time, they apply three frames labeled 'index', 'spectacle' and 'brand'. The index refers mainly to when the name of a building points to its address or to a specific location. The spectacle frame transforms housing into something of a consumerist spectacle, using signs that demonstrate consumerism and social status, among others through over-the-top designs, special typography or expensive materials and including links to exotic places such as Eden Gardens. The brand frame is similar to the spectacle frame, but adds a layer of meaning to the signs through repetition and using the name as a logo. Jaworski (2015a) applied frame analysis again in a publication on welcome signs in tourist destinations to demonstrate how tourist spaces are organized. In this case, he distinguishes five frames: 'home from home', 'brand', 'spectacle', 'hedging' and 'multilingual display'. From the three studies by Jaworski mentioned above, it becomes clear that the frames partly overlap but the number and the content of the label seem to depend on the type of sign and the context.

Izadi and Pavaresh (2016) apply three frames to their analysis of Persian shop signs in Sydney. They call these frames 'symbolic uses of Persian', 'collective identity' and 'interaction order'. Their analysis is intertwined with the sociological structuration principles proposed by Ben-Rafael *et al.* (2006) (see above), as well as with geosemiotics by Scollon and Scollon (2003) (see below). This mixing of approaches makes their frame analytic approach less transparent. In his study of Banglatown in London, Rasinger (2018) applies four interrelated frames which he denotes as the 'civic', 'commercial', 'community' and 'visual frame'.

He concludes that the frames can be layered and overlapping in different signs at the same time. Thus, the official bilingual street signs mark the area and are part of the civic frame. In the commercial frame, Banglatown becomes a tourist site where the use of the Bangla language on bilingual signs is only symbolic and aimed at visitors to make it exotic. The community frame is aimed at the local population and there the use of Bangla is meaningful. The visual frame uses colors and images with cultural connotations and adds to the other frames. In their study of the linguistic landscape of Seoul, South Korea, Ding *et al.* (2020) developed three frames: 'geopolitics', 'geoeconomics' and 'identity'. Basically, these frames refer to, first, the historical influences and official regulations reflected in traces of scripts in the signage; second, commercial signage; and third, the positioning of the Korean language on its own, but influenced by the first two frames. The authors conclude that the linguistic landscape 'suggests the tensions arising from the multiple, overlapping and sometimes contradictory facets that the city presents' (Ding *et al.*, 2020: 19). Their frames, somehow, also seem to overlap. In different ways, the studies summarized above show that a frame analytic perspective can be enriching for linguistic landscape studies. We have seen that there is some awareness among later publications about earlier frames that were developed, but authors seem to feel a need for new frames designed specifically for each study because they apply uniquely to each context. It is also notable that a limited number of frames seem to be sufficient for the analysis and that three to five frames is the most common.

3.5 Geosemiotics

The theoretical ideas of Scollon and Scollon (2003) about 'geosemiotics' have underpinned a substantial amount of work in the field of linguistic landscape studies. They define geosemiotics as 'the study of the social meaning of the material placement of signs and discourses and of our actions in the material world' (Scollon & Scollon, 2003: 2). Their basic assumption is that the relationship between space and social meaning is captured through the interplay of three broad systems: (1) 'interaction order', a term from Goffman, which refers to the ways in which people form social arrangements through discourse and produce social interaction; (2) 'visual semiotics', a term from Kress and van Leeuwen, on the ways in which pictures are meaningful wholes for visual interpretation; and (3) 'place semiotics', which refers to the location in the built environment and the natural landscape and the way in which spaces are used. It is the third system that they consider the central thesis of geosemiotics: 'that exactly where on earth an action takes place is an important part of its meaning' (Scollon & Scollon, 2003: 19). The general principles of layout combined with how and where signs are placed give them their meaning (Figure 3.2).

Figure 3.2 Worker putting up a new street sign

The geosemiotic approach analyzes signs through their physical aspects by interpreting the content and layout of signs, as well as their social and local contextualization. Where you find the sign and the properties of the place, can inform you about its meaning, its functions and how it is relevant. Language points to things in the world, which is the basis of indexicality. It is not only the language on a sign, but also how signs are framed and situated within a specific setting. In other words, because signs point to other things, signs are indexical. An important part of the meaning of signs is derived from where, how and in which context the signs are placed. Indexicality is one of the fundamental principles of geosemiotics and also a key notion in other studies (Curtin, 2009; Pütz & Mundt, 2019b).

'Geopolitical location' refers to how languages on a sign index the community in which they are used and 'sociocultural associations' symbolize an aspect that is not related to the physical place where a sign is located (Scollon & Scollon, 2003: 118–119). Thus, an English sign may or may not index an English-speaking community, and at the same time such a sign can also symbolize foreign taste and manners. The geosemiotic approach has given much insight into how language on signs communicates meanings in terms of where and when they are physically placed. A central concern is the interaction of spatial, individual, social and cultural contexts.

Geosemiotics has proven to be theoretically enriching for the field because it shows how an in-depth qualitative analysis of signs is beneficial

for work on linguistic landscapes. An important and influential set of ideas that leans heavily on geosemiotics was developed by Jaworski and Thurlow (2010). They cover a broad range of issues related, among others, to the concept of space which is considered as a semiotic resource. In human geography and art history, landscape is a way of seeing and space is not only a physical concept, but it is also socially constructed. The process of globalization underlies 'much ongoing change in the linguistic/semiotic landscapes' (Jaworski & Thurlow, 2010: 15). They recommend context-specific analyses of language and encourage a multifaceted, in-depth ethnographic approach.

As we mentioned in Chapter 2, geosemiotics was for Blommaert (2013) a central point of departure for his ethnographic research method. He noted that geosemiotics 'requires ethnographic understanding rather than numbers, and that signs are necessarily addressed as multimodal objects rather than as linguistic ones' (Blommaert, 2013: 41). In Chapter 4 on research methods, we discuss how he subsequently developed his ideas into the ethnographic linguistic landscape approach (ELLA).

As an approach, geosemiotics has provided a theoretical basis for the empirical studies of various researchers. For example, the study by Lou (2007, 2016a) of Chinatown in Washington, DC. Her geosemiotic analysis leads to the conclusion that 'through diachronic comparison with historic photographs of Chinatowns more than a century ago and synchronic comparison between Chinese and non-Chinese stores, their nuances as well as similarities can be discerned' (Lou, 2007: 191). In another study, Lou (2017) also applied the geosemiotic perspective for the analysis of three markets as spaces of consumption in Hong Kong. A geosemiotics approach is also used by Tran (2021) in a study in Edmonton, Canada. He analyzes the relationship between the display of Vietnamese identity and *Pho*, the well-known soup. His work is at the same time an example of the analysis of a 'foodscape', a focus on the linguistic landscape of restaurants, eateries, etc. Similarly, Abas (2019) applied a geosemiotic perspective in his analysis of the ethnic foodscape in Bloomington, Indiana, with an emphasis on different tastes.

Lesh (2021) used geosemiotics and the materiality of the Basque language to study gastronomic tourism in the Basque Country focusing on connections between food and language (see also Figure 4.2 for Basque-Spanish sign of restaurant). Also Järlehed and Moriarty (2018), although not using geosemiotics *per se*, emphasized the semiotic dimensions of what they call the 'semiofoodscape' in a study of the Basque wine Txakoli. As an aside, we can mention some other studies of foodscapes that do not use a geosemiotic approach, such as that of Järlehed *et al.* (2018), who studied foodscapes in Gothenburg through the lens of mobility and gentrification, and Leimgruber (2018), who analyzed foodscapes in Singapore from the perspective of mobility.

De Saint Léger and Mullan (2021) explicitly applied the framework of geosemiotics in a learning task for two cohorts of Australian students of

French during a study tour to explore the urban landscape of the central square of Nouméa, the capital of New Caledonia. By emphasizing the geosemiotic framework for their second cohort, the researchers could observe that students were 'better equipped… toward the development of independent and critical thinking by focusing on the dynamics of people and place' (De Saint Léger & Mullan, 2021: 69), and the students also had deeper and wider reflections. Using an explicit version of the geosemiotics approach, the authors present an interesting example of the application of linguistic landscape for educational purposes (see Chapter 10).

In short, several researchers have applied geosemiotics. The approach strongly influenced the conceptualization of the 'semiotic landscape' proposed by Jaworski and Thurlow (2010) (see Chapter 1) and is one of the bases of the ethnographic method ELLA developed by Blommaert and Maly (2016) (see Chapter 4).

3.6 Theorizing Space

In this section, we briefly discuss some concepts developed by two French philosophers, Lefebvre and Foucault, because their ideas have been adopted by researchers in the field of linguistic landscape studies. The theoretical framework of the French philosopher and sociologist Lefebvre (1991) has been repeatedly applied in linguistic landscape studies. Lefebvre sees public spaces as a complex social product, an ongoing construction, based on values and the production of meanings, which influence spatial practices, perceptions and experiences. Lefebvre's work on the production of space has attracted the attention of linguistic landscape researchers, especially his triadic model in terms of a distinction between 'perceived', 'conceived' and 'lived' spaces. Perceived space relates to what people can see, hear or notice through their senses. Conceived space is the product of policymakers and others whose ideologies and actions have formed the space as it is perceived. Lived space refers to actual experiences of people in public spaces. Trumper-Hecht (2010) applied this model in her study in mixed cities in Israel. She investigated the visibility of Arabic as it is differently perceived and experienced by Arab and Jewish residents. For her, this was a way 'to arrive at a deeper theoretical understanding of the LL as a sociolinguistic-spatial phenomenon' and she recommended that 'a study of all three dimensions and the ways in which they may be interrelated is required' (Trumper-Hecht, 2010: 237).

The model of three dimensions has thus proved to be a valuable theoretical approach for a more thorough understanding of linguistic landscapes. As said, Lefebvre's ideas have inspired various linguistic landscape studies, for example, early studies by Barni and Bagna (2010) and Shohamy and Waksman (2009), and by Chun (2014) in his account of mobile protest signs in the Occupy movement in Los Angeles, by

Huebner and Phoocharoensil (2017), who apply the framework to analyze a monument of student protest at Thammasat University in Bangkok and by Wu *et al*. (2020) who investigate a 'New Chinatown', also in Bangkok. Han and Wu (2020) started out from Lefebvre's conceptualization of social space in their study of conflicts in the linguistic landscape in Guangzhou, China. The authors interpret the conceived space as the political dimension of language policies, the perceived space as the physical dimension of spatial practices and the lived space as the experiential dimension of residents' attitudes. One obvious conflict exists between a monoglot regime by language planners who only endorse the use of Putonghua, and the social reality of a multicultural and multilingual society where different language choices are made by creators and recipients of signs at the grassroots level.

The main ideas of Lefebvre were taken up in the proposals for language learning by Malinowski (2015, 2018); those ideas are further elaborated in Chapter 10.

A number of ideas developed by Foucault, the influential and widely cited French philosopher, have found a following among linguistic landscape researchers. In particular, the theoretical construct of *heterotopia* has been a guiding concept in studies of highly diverse locations such as Chinatown in Washington, DC, a Sámi village in the north of Finland, the tourist city of Venice and the protests in Hong Kong. Foucault developed the concept of heterotopia to describe a heterogeneous space of places and relationships that are somehow 'other', transformative, different or the opposite. In some way, they mirror and distort or invert other spaces. The concept has been applied across a range of disciplines, in particular in urban studies. However, there is no clear definition and much depends on the interpretation of the researcher (Johnson, 2006; see also Sacco *et al*. [2019] for a comparison of heterotopia according to Foucault and Lefebvre).

Lou (2007) introduced the concept of heterotopia in her study of shop signs in Chinatown, Washington, DC. Her study is based on a geosemiotic perspective (Scollon & Scollon, 2003, see also Section 3.5). According to her, the efforts to preserve Chinatown have unintentionally turned it into a heterotopia, where incompatible sites are juxtaposed and which are open and closed at the same time. The display of Chinese signage is no longer related to the demographics or identities of the businesses.

In an ethnographic study of the multilingual landscape in the Sámi village of Inari in Finland, Pietikäinen (2014) applied heterotopia as one of the two central concepts. The concept is illustrated, among others, with the multimodal sign of a hotel billboard in the village. The spatial dimensions show that this is a heterotopia in the sense of the coexistence of different spaces that are juxtaposed because 'the indigenous, national and global spaces are brought together in this sign with the linguistic choices of using Inari Sámi, Finnish and English languages' (Pietikäinen,

Figure 3.3 Heterotopia in Venice

2014: 485). Similarly, Tufi (2017) argued that the tourist city of Venice is constructed as a number of heterotopias because it is not real and yet exists within a real space (Figure 3.3).

The city, as a global tourist destination, has become an open-air museum where the local residents have been displaced by millions of visitors. Heterotopias undermine languages and Tufi demonstrates, based on a quantitative analysis of the languages displayed on signs, how Italian is to a large degree displaced by other languages, especially in comparison to other urban areas in Italy (Blackwood & Tufi, 2015). First of all, Italian is displaced by not only English, but also French, German and Spanish, and many other languages, for example in the widely available city guides in many languages.

Another take on heterotopia is that by Anfinson (2020), who emphasized the dimension of crisis and deviation in the definitions of heterotopia as well as its reflexive characteristics. For him, the construct covers more than the plurality of languages and spaces and he discusses at length the six principles proposed by Foucault. His study of the paper city of protest in Hong Kong is based on a set of over 10,000 images taken during 80 days of the protest. The author wants to demonstrate how the concept of heterotopia can enhance linguistic landscape studies by looking into power dynamics and subversive multimodal elements. Further applications of the concept of heterotopia can, among others, be found

in the work of Barboza and Borba (2018) in a study of the linguistic landscapes of public restrooms.

After this discussion of some theories and concepts derived more from the social sciences and philosophy, we now turn to some ideas more influenced by linguistics: first pragmatics, then contact linguistics and finally language variation.

3.7 Pragmatics

Pragmatics is a branch of linguistics that deals with the use of language and how it relates to the context in which it is used or, in short, 'pragmatics is the study of language use in context' (Huang, 2017: 1). On the one hand, pragmatics can be viewed as a component of linguistics next to others such as phonetics, syntax and semantics, where it studies meaning dependent on the use of language. On the other hand, it can emphasize a functional perspective that looks into cognitive, social or cultural linguistic phenomena in relation to their usage. Pragmatics has found various applications in linguistic landscape studies and some examples can be given.

Kallen (2009) looked at the linguistic landscape as a form of discourse and identified speech acts that indicate communicative intent on the part of the sign's author that could be recognized by the addressee. A sign outside a restaurant can just be information about its existence but can also be interpreted as an invitation to go into the restaurant. In Cenoz and Gorter (2008), we discussed a sign on a vending machine saying 'Are you thirsty?' as an indirect speech act with the communicative intent of being a request to buy a drink. These two examples are mild hints to influence the addressee's behavior but other signs can have a directive functions telling the addressee what to do or what cannot be done in a very direct way. The COVID-19 regulations in the public space provide many of these examples: 'Wear a mask', 'Please keep a distance', 'Wash your hands'.

Another example comes from a study of directive signs in relation to the law by Mautner (2012). She draws on speech act theory from pragmatics to explain how signs are used to perform social actions. She identifies two key dimensions: the position of signs in their physical environment (emplacement) and the ways in which the signs display a legal framework. The positioning of a directive sign has an effect on the performance of the intended function and that function depends in turn on the legal authority. Essentially, a sign that says 'Keep out' performs the speech act successfully, if it prevents people from entering. Likewise, Matras *et al*. (2018) applied a pragmatics perspective in their study of the linguistic landscape of a neighborhood in Manchester. The neighborhood has a large Yiddish-speaking Hasidic-Haredi community, a so-called ultra-Orthodox Jewish population. They look into different

communicative acts and illocutions and how those are related to choices within a multilingual repertoire. They conclude that 'Each event is composed of individual communicative acts; events can be grouped into genres based on their overall purpose, message content and audience selection' (Matras *et al.*, 2018: 67).

Chern and Dooley (2014) suggested possibilities to enhance pragmatic competence and pragmatic awareness based on English literacy walks through the linguistic landscape of Taipei, Taiwan, where Chinese, Japanese and English signage abounds. The authors make suggestions of how the signage can be used to raise awareness about writing systems and alphabetic principles, and also explicit pragmatic awareness by sampling texts that are persuasive, decorative, informational, amusing, etc., and going into a deeper analysis of English texts. In our own work, we have explored the acquisition of the pragmatic competence of second language learners in relation to languages on display in public spaces (Cenoz & Gorter, 2008). We identified several examples of bilingual and multilingual signs as authentic, contextualized input as part of the social context, which can be useful for language learners (we discuss our study in Chapter 10).

3.8 Contact Linguistics and Language Variation Studies

As the name implies, the study of contact linguistics investigates the linguistic and sociolinguistic phenomena of interactions between two or more languages and manifestations of its changes (Matras, 2020). Obviously, a great deal of the study of linguistic landscapes can be characterized as language contact research in a broad sense because most studies deal with issues related to the use of two or more languages that have a presence in public spaces. Investigations of language contact can be conceived of as a branch of linguistics. Weinreich's (1953) *Languages in Contact* is a classic book based on his PhD thesis, and in the original manuscript Weinreich ([1951] 2011: 128) included three photographs of bilingual French–German signs in the city of Biel, Switzerland. Those signs were used to illustrate the importance of the linguistic landscape for language contact, even if they were not included in the later version of the published book. Another example to illustrate the relevance of language contact for the study of public signage can be found in Backhaus (2007: 1), who opens his foundational monograph with the sentence 'The city is a place of language contact'. It demonstrates the importance for his own project in Tokyo, and for many other projects that follow later. Therefore, it comes as no surprise that recent handbooks on language contact research have begun to include a separate chapter on linguistic landscape studies (Bagna *et al.*, 2021; Bolton *et al.*, 2020; Gorter, 2019b). Usually, in those chapters a short overview of the field is given and its relevance for language contact studies is explained.

However, Woldemariam and Lanza (2014: 80) argued that language contact was rarely addressed in work on linguistic landscapes. By this, they meant the more narrowly linguistic issues of language contact, rather than broad societal phenomena. In their study of shop signs and other signs in the towns of Adama and Mekele in Ethiopia, they investigated syntactic structures, such as word order, that could demonstrate contact between Amharic, the federal language, and Tigrinya and Oromo, two major regional languages. They found similar language contact patterns across the regions.

Other studies have also dealt with the linguistic dimensions of language contact, for example, as related to forms of creolization. Kasanga (2010) looked into forms of 'streetwise English' in the French-dominated Democratic Republic of Congo, where English is mixed into French shop names, signs, billboards and advertisements and serves mainly symbolic functions. He argues that the study of linguistic landscapes enriches insights into contact linguistics. In another study on Creole, Dray (2010) discussed the ideological functions of Jamaican Creole and (standard) English in different types of signs, such as roadside advertisements and signage on public transport and in dancehalls. It seems that Creole is increasingly present in the linguistic landscape of the island. Similarly, Blackwood (2018) investigated the role of Guadeloupean Creole and how its infrequent display in the linguistic landscape shapes a sense of community and identity in contrast to French, the dominant lingua franca. He looked into the use of Creole in social protests, commercial activities, identity and by the different layers of government, but finds that the language is hardly visible.

Language variation studies are obviously of great relevance for work on linguistic landscapes. A specific example from the field of language variation or dialect studies is the concept of 'enregisterment' and this concept has been successfully applied in work on linguistic landscapes. The idea is that a distinct form of speech becomes socially recognized as an index of the way speakers use specific forms (Agha, 2005). In her work on the dialect of Pittsburgh, Johnstone (2011) uses the concept of 'enregisterment' to demonstrate how certain linguistic forms or practices create a link between social identity and ideology. It happens not only in spoken language but also with written forms on products such as T-shirts. Enregisterment shows that linguistic and social variations are related across different contexts. It means that a new and dynamic register of speech is created or, said differently, enregistered simply means widely recognized (Spitzmüller, 2015).

Stroud and Mpendukana (2009) applied the concept of enregisterment in their study of the linguistic landscape of a South African township and they are able to demonstrate how language forms across signage are interconnected. They are particularly interested in how certain forms of language displayed in public signage are used and how they spread

among speakers. However, as they conclude 'for enregisterment, we are unable as yet to fully draw any firm conclusions' (Stroud & Mpendukana, 2009: 382). We previously mentioned Jaworski (2015a), who applied frame analysis to 'welcome' signs. He suggests that this typical sign is a form of enregisterment because it is so prevalent in the linguistic landscapes of tourist destinations. Jaworski (2015b) conceived of punctuation marks, diacritics and other special typographic forms as a new register. He calls this register *globalese*, and he mentions how those forms 'have come to enregister and index those spaces as global and cosmopolitan' (Jaworski, 2015b: 220). Thurlow (2021) observed how elements of globalese are combined with localese in an example of a slogan written in a regional dialect of Swiss German with nonsensical diacritics. According to Thurlow, this leads to a transformation of the typographical landscape.

3.9 History as a Disciplinary Lens

The historical dimension of linguistic landscapes, not only from the perspective of history as a scientific discipline but also in general, can provide another relevant outlook and is worth exploring in depth. Linguistic landscapes are unmistakably dynamic and change over time; they can have an important historical dimension that can inform about the role of different languages and social groups over time. In Chapter 2, we discussed an illustrative example in Spolsky and Cooper (1991) about a pair of street signs that demonstrate different political periods in Israel and we included a photo of the sign. Backhaus (2005b) reported on his work on Tokyo, specifically focusing on diachronic development since the 1990s. He applies the concept of 'layering' of street signs and compares older and newer versions of signs. He finds that a diachronic perspective suggests a transition in the direction of the use and visibility of more languages, and of scripts other than Japanese. His analysis shows how this linguistic landscape has evolved over a specific period of time. In this way, he demonstrates the value of taking a historical angle.

Pavlenko (2010) takes the historical approach one step further by covering a very long period. She wrote a history of the linguistic landscape of Kyiv, Ukraine, from the 9th to the 21st century. She examines the factors of language change as reflected in sources such as pictures with traces of past linguistic landscapes, and on frescoes, coins, manuscripts and photographs from the 19th century onward, including her own pictures of recent changes in signage. Her overview of a 1,000-year-old tradition of multilingualism demonstrates how a diachronic approach can be valuable in providing a summary of a city's long multilingual tradition. According to Pavlenko (2010: 133), linguistic landscapes are 'not a state but a diachronic process and the meaning of the present day's arrangements cannot be fully understood without considering those of the past'. A more

general argument is presented in Pavlenko and Mullen (2015) where they propose a deeper diachronic approach to studying linguistic landscapes in general. For them, too many studies are synchronic and only focus on a single point in time. Linguistic landscapes should be approached more often diachronically by applying an apparent-time analysis. This implies investigating a current linguistic landscape while searching for historical linguistic elements on signs or inscriptions remaining from the past. However, trying to 'read back' and reconstruct historical changes from current signage is not without problems, because, among others, it may be subjective. Also in Ukraine, Malykhina (2020) studied historical changes in the linguistic landscape in the northeastern city of Kharkiv, close to the border with Russia. Central to her analysis is the concept of *palimpsest* in the sense of 'a complex combination of traceable and irremovable elements of a city's previous linguistic landscapes that can be found in the current one' (Malykhina, 2020: 57). Her analysis of murals, street signs and, in particular, the graffiti work of local artists, shows the links between past and present in the ongoing transformation of the urban linguistic landscape.

Here, we want to add a remark about recent developments due to the Russian invasion of Ukraine, where the war has led to the complete destruction of various towns and cities, including large parts of Kharkiv. Some newspapers have reported on changes in the linguistic landscape as part of the war. In Russian-occupied territories, Russian names have been introduced (The Moscow Times, 2022), whereas for example in Odessa a campaign was renewed to derussify street names (The Guardian, 2022). These developments illustrate in a tragic way how recent events such as this war have a destructive impact on linguistic landscapes.

Moore (2019b) used public signage in Vilnius, Lithuania, as a case study to illustrate much broader sociolinguistic changes in what she calls the memoryscape in the post-Soviet Baltic states. Her study of the linguistic landscape also considers monuments and everyday items as cultural and physical landscapes. She concludes that 'political control over memories is a vital tool in cultural memoryscape transformations which are visible in urban linguistic landscapes' (Moore, 2019b: 276). Her case study illustrates that including a diachronic perspective and historical layers are important elements of linguistic landscape analysis. In her study of the Dansaert neighborhood of Brussels, Vandenbroucke (2018: 26) argued 'in favour of more historically-sensitive and longitudinal approaches to social and linguistic change as played out in urban landscapes'. She showed how the neighborhood has gone through different phases of urban renewal and gentrification and how these are reflected in and constructed by the linguistic landscape. Part of her observations are based on the early linguistic landscape work by Tulp (1978) and Wenzel (1998), which makes a partial diachronic comparison possible (see Chapter 2). Sheh (2015) used the word *urban palimpsest*, or ghost sign,

in a reference to some historical signs in the neighborhood of Te Aro in Wellington (New Zealand). Those signs are layered and they speak to past, forgotten identities or nostalgia and somehow refuse to go away. A different historical approach was chosen by Feng (2007), who started with a large collection of photographs of China recorded between 1933 and 1946 (Harvard Library, 2022) that also included shop signs in Beijing. The approach could reconstruct signage as an important part of the urban material culture in the city. In our own work, we encountered an interesting historical development in the way language policy decisions changed the street names in Donostia-San Sebastián (Gorter *et al.*, 2012b; discussed in Chapter 11).

Even if the studies mentioned so far are diachronical, they are usually not really longitudinal, because that would imply investigating a linguistic landscape at two or more different times. Blackwood (2015: 44) specifically hints at this possibility as a strong point of quantitative approaches because potentially a researcher can return periodically to observe changes. From his own work, he provides the example of revisiting Brittany and North Catalonia in 2014, after initial visits in 2007/2008, and he highlights the differences between the two regions in how the signs have changed. Similarly, Tufi (2022) reports on diachronic changes that have taken place over a period of 10 years at Garibaldi Square in Naples, Italy (Figure 3.4). In her longitudinal study, based on several field trips, she was able to document the transformation of the linguistic landscape of the square, but more importantly she also consulted with local actors to obtain insights into their ideas about the process of urban regeneration.

Figure 3.4 Garibaldi Square in Naples

In a similar vein, Kroon (2021) provided a diachronic analysis of official language policies under different rulers in Eritrea, which are still visible in the linguistic landscape of the capital Asmara. Based on photographic data collected between 2001 and 2018, he found traces of the period of Italian colonization (1889–1941), the British protectorate (1941–1952), the federation with Ethiopia (1952–1962), the period of Ethiopian annexation of Eritrea (1962–1991) and the independent state of Eritrea (since 1993). He was able to provide a historical, quasi-longitudinal, sociolinguistic analysis of written signage and the co-occurring languages in a complex and multilayered linguistic landscape.

The historical dimension of the linguistic landscape was also an important element in studies, among others, made of Bloemfontein/Mangaung, South Africa (Du Plessis, 2010), the Prenzlauer Berg neighborhood in Berlin (Papen, 2012), the region of Nagorno-Karabakh (Muth, 2014) and Kosovo (Demaj & Vandenbroucke, 2016).

Blommaert (2013) emphasized the importance of social change, thus taking a historical perspective on the study of linguistic landscapes. The study was based on observations that he made in the neighborhood where he lived in Antwerp over a period of more than 10 years. He argues that a researcher has to capture ‘the situated and momentary occurrence of a sign in this shop window, on this street, at this time’, but it is also necessary to take a longer historical perspective ‘to account for the complexity of forces and meanings that dynamically come to bear on the instance of a sign and its interpretation’ (Blommaert, 2013: 11). Social change is at the heart of the ethnographic linguistic landscape approach (ELLA), which he fully developed as a research method in Blommaert and Maly (2016). ELLA is conceived of as an inherently historical approach (see Chapter 4).

Historical change does not necessarily refer to long-term changes; it can also be on a short-term timescale as we illustrated in Chapter 1, where we mentioned the changes in linguistic landscapes around the world due to the COVID-19 pandemic. All of the studies mentioned above share a common interest in analyzing historical changes as revealed through linguistic landscapes due to changes in social, economic or political developments.

3.10 Other Disciplinary Perspectives: Economics, Cultural Geography and Policy Sciences

As we outlined at the beginning of this chapter, linguistic landscape studies can be situated in the midst of a range of disciplines, which makes the use of multiple theories, approaches and ideas defensible. Over the years, we have seen the application of models and ideas from other disciplines such as economics, cultural geography and policy science, and we summarize a few here.

Economics combined with sociolinguistics is the interdisciplinary approach we have adopted in our own work (Cenoz & Gorter, 2009).

In collaboration with economists, we applied a model of 'non-market values' derived from environmental economics to discover the added value of multilingualism. The approach can be illustrated by reproducing Table 3.1 from our chapter (Cenoz & Gorter, 2009: 65).

Table 3.1 Non-market values of linguistic diversity within the linguistic landscape

Use values	Examples
Direct use values: Direct use of the languages to convey meaning and to communicate.	• Understanding the meaning of the signs because they are in a language we understand: names of streets, shops, services. • Practicing the languages citizens know.
Indirect use values: Indirect use of linguistic diversity, including costs avoided (more marketing for tourism, specific guides, more work on integration).	• More possibilities to attract tourism because the environment is 'friendly' and the signs are understood. • More possibilities to work toward integration of different minorities and to avoid conflict. • Giving an image of a modern, cosmopolitan, multicultural city.
Non-use values	
Bequest value: Value of the languages in the linguistic landscape left for future generations.	• When languages are in the landscape, citizens, particularly speakers of minorities, feel that their language may survive and be used by future generations.
Existence value: Intrinsic value of linguistic diversity: the value people place simply on knowing that linguistic diversity exists even if they do not understand the languages.	• Speakers of different languages enjoy the existence of these languages because they identify with them.

We used this schedule to investigate the perception and linguistic preferences on the languages in the signs, including the willingness to pay. Our study included street interviews with local passersby, both residents and tourists (in Chapter 4 on research methods, we explain the data collection). The results of the study were published as a book chapter and in two working papers (Aiestaran *et al.*, 2010; Nunes *et al.*, 2008; Onofri *et al.*, 2013). The study in Donostia-San Sebastián shows that Spanish was perceived as dominating the linguistic landscape; however, at the same time, an overwhelming majority of the respondents preferred at least two languages on the signs and relatively few wanted monolingual signs. The respondents were also presented with a monetary choice in a scenario of paying for five services relevant for visitors (next to the signs; the others were parking spaces, public toilets, written information and tourist guides). Overall, having the signs in the preferred way scored the lowest of the five options. In terms of willingness to pay, the Basque speakers were more ready to contribute than the Spanish speakers (Aiestaran *et al.*, 2010). We looked separately into the sample of the tourists who visited the cities of Donostia-San Sebastián or Leeuwarden-Ljouwert. Based on this survey and an econometric analysis, we found that over half of the respondents were not willing to pay for the

linguistic landscape in the way they preferred it. In a similar study among the residents of the two cities, the willingness to pay for the signs was even lower, although the effect was mainly caused by Dutch speakers in Leeuwarden-Ljouwert (Onofri *et al.*, 2013).

The obvious economic dimension of signs for selling products and the economic benefits that this signage can produce have also been studied by economists. When a business places a new sign, it may attract more clients and the added sales could then be attributed to the new sign. It may be difficult to establish its effect in precise monetary terms, but it is possible to measure the direct or market economic value of the sign by the number of exposures (how many people see it), the value of the location of the business and the extra revenue generated by the sign (Claus, 2002). In an economic study, Rexhausen (2012) measured the positive economic impact of on-premises signage for businesses in the United States, in the sense of an increase in revenues. This was especially related to changes in the visibility and conspicuousness of the signs. About two-thirds of the businesses in the survey (n = 213) had made changes to the design, visibility and the number or size of their signs over the previous five years. Rexhausen reported that roughly 60% of those businesses had an average increase of 10% in sales, number of transactions and profits. Azumah *et al.* (2021: 195) reported that in different countries between 11% and 30% of the total advertising budget may be spent on outdoor advertisements.

Cultural geography as a discipline, the study of the spatial relationships between culture and place, has had a substantial influence on the semiotic landscape approach by Jaworski and Thurlow (2010). One of the core ideas, that landscape is a way of seeing, comes from the cultural geographer Cosgrove (see Section 1.3: Expansion of the Field). As we mentioned, he also provided theoretical insights for Leeman and Modan (2009) in their study of Chinatown in Washington, DC. In that study, the historical context is emphasized by looking into the role of language in shaping the processes of gentrification. A period of redevelopment started in the 1970s, and the results show how current signage written in Chinese reflects ethnic commodification which appeals especially to outsiders and is largely separate from a community of speakers of Chinese. The study is also related to an economic perspective because Leeman and Modan apply the notion of 'symbolic economy', according to which cultural symbols are important for selling products and services. The authors conclude that Chinese writing is used to sell Chinatown as a tourist destination and has become 'more a symbolic design element, an ornament in the commodified landscape' (Leeman & Modan, 2009: 359; see Chapter 6 on Chinatowns). In her analysis of schoolscapes, Brown (2012) also includes some concepts from cultural geography (see Chapter 10).

The concept of a 'cognitive map' as the mental representation of a space was borrowed from cultural geography by Trumper-Hecht (2010)

to refer to the linguistic landscape that a group shares with another group, in her case, Jewish and Arab residents in Israel.

In the discipline of *policy sciences*, the Advocacy Coalitions Framework (ACF) is an influential framework of policy processes. It was originally developed by Sabatier (1988) and further elaborated, among others, in Sabatier and Jenkins-Schmidt (1999). The importance of the framework lies in the fact that it emphasizes how actors share their beliefs and compete with other coalitions. The framework was applied to linguistic landscapes by Sloboda *et al.* (2010) and also by Szabó-Gilinger *et al.* (2012) for a comparative project in five European towns. They analyze and compare the perception of multilingual signs in Llanelli and Cardiff (Wales), Cesky Tesin (Czech Republic), Békéscsaba (Hungary) and Pula (Croatia). Szabó-Gilinger *et al.* (2012) found that public discourse treats signs as either instrumental objects or as symbolic spaces. Another interesting finding was that if a minority community has only a small number of speakers, this can be used as an argument to reinforce the visibility of the language, while at the same time, other people can use exactly the same reason to justify a reduction in the visibility of a minority language and thus multilingualism. It seems that how signs in a minority language are perceived in policy processes depends on the stage of language shift and on the size of a minority language community.

3.11 Toward a Comprehensive Model: MIPS

Most studies of linguistic landscapes have directed their attention to language elements of signage, but the field continues to move forward and goes beyond the approaches we have outlined in the previous sections. We have proposed a model called multilingual inequalities in public spaces, which intends to shed light on linguistic and social inequalities (Gorter, 2021; Gorter & Cenoz, 2020). We take multilingualism as a point of departure because we argue that it is not easy to come across fully monolingual linguistic landscapes (see Chapter 6). We present an overarching model of the entire course of constructing and developing multilingual landscapes. In explaining the model, we begin by looking at language policies, then we continue with production processes, analyze the signs and, via the perception of signage, we end by discussing language practices. These stages are recursive, so this cycle can be repeated infinitely. The objective of the model is to describe and analyze the cyclic sequence associated with the construction of linguistic landscapes and how these processes and outcomes have an effect on the experiences of groups of people and their social behavior, in particular their language practices. One of the basic assumptions is that languages in linguistic landscapes are unequal because of how they are socially situated, of how they are displayed and of how they are viewed by the groups and individuals who make use of them. In this way, one can better understand

the interrelationships between the processes that lead to the display of multilingual inequalities on signs in public spaces and the perceptions and reactions of people. The model is intended to uncover language inequality on signs linked to social inequalities in the population. This is a dimension that has been highlighted by most research, as was confirmed in an overview of the field by Shohamy (2019). Our basic idea is to look at linguistic landscapes from a social perspective because population groups differ in their reactions to signage and we want to frame the inequalities in a unified and inclusive perspective.

At the same time, the model implies a new research agenda for linguistic landscape studies. An encompassing, holistic approach is missing in today's linguistic landscape studies and the model explores a comprehensive way to be inclusive. Our model goes beyond the current state of affairs in the field and it has the advantage that it can be applied in almost any context, and it is possible to incorporate concepts from different theoretical perspectives. In the application of the model a range of methods can be applied.

The model has five component parts that are conceived of as the connected dimensions of an interlocking chain (see Figure 3.5).

Components 1 and 2 of the model are when and where the conditions are created for shaping and placing physical signs.

The first component concerns language policy processes, which to a large extent determine why, how and which languages appear on signs. The second component relates to the production processes of the signs themselves, which are dependent upon design, material, multimodal aspects and the selection of languages. Component 3 is the core of the model, comprising the actual physical signs in urban spaces on which language is displayed. Components 4 and 5 refer to processes brought

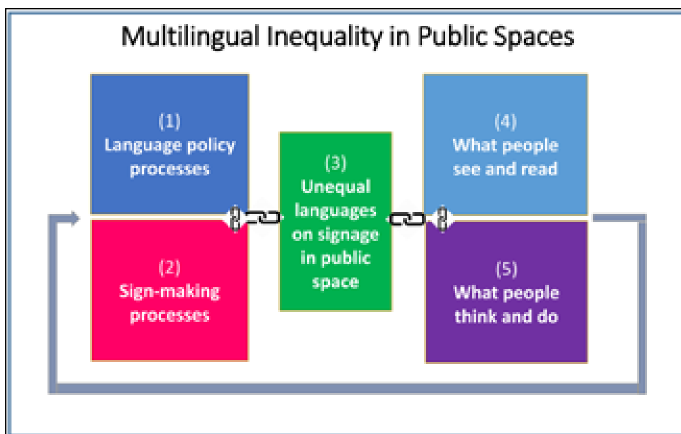

Figure 3.5 Multilingual inequality in public spaces (MIPS) (a model of linguistic landscapes with five interlocking and cyclical components)

about by individual signs, a series of signs or all signage together. Signs can influence people because of what can be seen and read. Subsequently, people can respond to or interact with the language(s) on signs, and this can influence their manner of acting and their language practices. The fourth part is about influences on individuals who, as passersby, see and sometimes read the signs in detail. In the fifth part, after reading, interpreting or making sense of the signs, people can respond to or interact with the language(s), messages, information or meanings present on the signs, and this can in turn affect their behavior and their language practices. Putting this all together leads us to argue that language policies, conceived of as processes recurring in cycles, are influenced by evaluations and responses of individuals or groups to texts in public spaces, and as a consequence, the reactions can have an impact on the future development of policy. In that sense, the interlocking chain works like a feedback loop indicated by the arrow that refers to a reiteration of the cycles.

A more detailed outline of each of the components and their interrelationships is provided next.

3.11.1 Component 1: Language policy processes

As said above, policy determines or at least influences which languages are used on signage, especially on official signs. The following broad definition has been offered of language policy: ‘a policy mechanism that impacts the structure, function, use, or acquisition of language’ (Johnson, 2013: 9). The definition is linked to a lengthy description of how a language policy can be official, top-down or unofficial, bottom-up, it can also be overt or covert, explicit or implicit, *de jure* or *de facto*, and its agents can be governments, communities, organizations, institutions, families or individuals (see Chapter 8).

Policy processes are complex because it is not only governments that develop policies for signage, but businesses and private organizations, groups of citizens and individuals also have their own language policies, and all of those policies contribute to the overall construction of the linguistic landscape.

Official language policy regarding signage is formulated in specific pieces of legislation, or is laid down in policy documents, and both are framed by the opinions, beliefs and (language) ideologies of public authorities, politicians and influencers of public opinion. Our assumption is that official and non-official language policies cannot ensure equality of languages on signs, because such policies are constrained by wider social and economic contextual forces.

The study of language policy processes has to investigate current language legislation, as well as policy documents, academic and other publications, the media and online debates. Further, the beliefs, opinions and ideologies of key informants with responsibilities related to

governmental language policy have to be considered. Other policy agents should be taken into account, such as political parties, unions, companies, advertising agencies and interest groups, and grassroots initiatives and vocal individuals can also play an important role. Investigating policy processes as part of a linguistic landscape study can be important and there are several issues to take into consideration. Some of those issues are, for example, policy aims in terms of equality of languages, the design of bilingual or multilingual signs, the role given to English in attracting visitors, using foreign or migrant languages, contestation and conflict over language use on signs, and public debates over language choice (e.g. Moriarty, 2014b; Rubdy & Ben Said, 2015). A handful of linguistic landscape studies have analyzed how language policy influences or determines the languages on signs (Dunlevy, 2012), its ideologies or manifestations of contestation (Shohamy, 2006, 2015; see Chapter 8 for further examples of language policy studies).

Authorities usually take responsibility for decisions on language policies and they often attempt to regulate which languages can be used in the public space. Legislation of signage aims to control the language (or languages) seen in public. Often, there is a gap between the *de jure* language policy on the use of the official language(s) and the *de facto* policy of language practices and visibility. Linguistic landscapes can also be an arena where policies are contested, resisted and protested. An example is the regulation of the use of languages other than French, i.e. English in the province of Quebec (Sections 2.2.3 and 8.3.1). Some investigations demonstrate a complex relationship between language policy and the presence of minority languages on display in public spaces (Szabó-Gilinger *et al.*, 2012). There is hitherto little research into the beliefs or ideologies of policymakers, and what and how they think influence signage (see however, Vandenbroucke, 2019a).

Language policy processes strongly influence the next component of the model, the sign-making processes, as well as how languages appear on physical signs. The chain-links between Component 1 and Components 2 and 3 indicate that these relationships are not unidirectional, but mutually influence or reinforce each other.

3.11.2 Component 2: Sign-making processes

The largest companies in the sign industry and their clients (frequently chains of shops, restaurants, hotels, etc., but also big-city governments and large organizations) determine what the totality of the assemblage of linguistic landscapes looks like. These are processes of one step at a time, in fragmented ways, and for the most part in public spaces. Official signage by central or local governments, independent shop owners, private organizations and individuals also makes its contribution. Economic or ideological considerations can be a constraint for multilingual

sign production and placement. Often, a sign maker's main concern is to attract the attention of specific target groups and then using particular linguistic elements can play a role. The sign industry largely has commercial concerns and an official policy that regulates the use of languages may be seen more as an obstacle than an opportunity. Sign makers can find creative ways to circumvent policy rules about which languages are mandatory to be displayed, for example, through the use of wordplay in 'bilingual winks' (Lamarre, 2014; see Section 8.3.1). As producers of individual signs (or a series of signs), the linguistic landscape of a street, a neighborhood or a city as a whole is of secondary importance to the big players in the sign industry. As far as we know, sign makers usually seem to have little consideration for language equality issues when producing signs. Language only becomes important for them when they aim at specific target groups and prioritize, for example, using English. In this regard, their work may increase inequalities between languages, even if unknowingly or unintentionally. In contrast, governments and associations can see the display of minority languages on signs as part of revitalization efforts. Similarly, communities or individuals may be concerned about the display of their identity by raising issues of language equality.

Sign-making processes first and foremost focus on the question of the design and production of signs. In commercial contexts, the concern in most cases is not about the effect signs may have on the unequal representation of languages. Stakeholders from the sign industry, who know about the production process, can be an important source of information but have thus far hardly been included in linguistic landscape studies. An exception to this can be seen in advertising studies where professionals have been included as sources of information (e.g. Martin, 2006).

Sign-making processes and production are also laid down in formal documents, such as annual company reports, design guidelines and communication manuals (Hepford, 2017). Large multinational companies like JCDecaux or Clear Channel Outdoor produce signage for a multitude of international chains of shops as well as advertisements on street furniture, billboards, transport and shopping malls. Therefore, such companies determine to a substantial degree what people will be confronted with in urban linguistic landscapes around the globe. Next to the big international companies, numerous smaller sign-producing firms are important. The sign industry in general is composed of many small and medium-sized enterprises (SMEs) which include independent local shop owners or other entrepreneurs who can have their own responsibility over signage.

Some studies have looked into the authorship of signs, for example, of shop owners (Lou, 2016a; Malinowski, 2009). Similarly, Papen (2012) interviewed shop owners and street artists to establish how the languages on signs and users interact, thus linking language policies and texts on signs. Studies collecting data from the big industry of sign production are

still lacking. Yet, our model includes this emphasis on the producers of signs in terms of authorship. The importance of producers of signs was also highlighted by Spolsky (2020).

The first two components of the MIPS model, language policy and sign-making processes, demonstrate that the physical appearance of the linguistic landscape as a whole is the outcome of complex processes. The linguistic landscape is constructed as an assemblage over a longer period of time. Some elements are old and stable (e.g. inscriptions on a monument), some have a reasonable permanency (e.g. names of shops), others have a limited life expectancy (e.g. a billboard advertising campaign), signs may only appear fleetingly (e.g. protest signs in a demonstration), other signs appear overnight (e.g. wearing a mask against COVID-19) and still others change continuously (e.g. LCD screens with video messages). As said, Components 1 and 2 are interlocked and together they create the assembly of signs, but it is the outcome, Component 3, that has thus far been the focus of most of the attention of linguistic landscape studies.

3.11.3 Component 3: Unequal languages on signage

The direct influence of policy and sign production is visible in a dynamic, ever-changing product: the linguistic landscape. It causes certain languages to have a greater and more dominant presence than other languages and it is related to how people interact with and react to signs (represented in Components 4 and 5 of the MIPS model). Our assumption is that the unequal display of languages is made visible more in specific types of signs than in others (e.g. official versus commercial signs). There are differences between public spaces in different urban contexts. For example, we can contrast a central downtown area with a neighborhood that has a diverse population in terms of origins and home languages. The totality of the linguistic landscape in public spaces is in most cases largely uncontrolled in terms of signage placed (even when the placement of each individual sign needs a permit).

Many linguistic landscape studies have focused on languages as they appear on signage itself (see Gorter [2013] for an overview). For example, studies that describe the languages on signs in a shopping street (Dimova, 2007; Weyers, 2015), a neighborhood (Maly, 2016; Papen, 2012), a whole city (Backhaus, 2007) or a series of cities (Blackwood & Tufi, 2015). There are also studies that explore the intended meaning of specific individual signs (Laitinen, 2014) or other qualitative aspects (Moriarty, 2014b), or studies based on linguistic changes in signage that observes social transformations in a neighborhood related to superdiversity and globalization (Blommaert, 2013; Blommaert & Maly, 2016). However, most of these studies have limited themselves to an analysis of the signs as physical tokens that contain linguistic elements. In general, researchers

have treated the linguistic landscape as 'language' or 'meaning' on signs to be discovered in an outside world. Signs are treated as pre-given and their linguistic or semiotic properties have to be determined by the researcher in order to look into social implications, possibly with help from other actors.

Some locations are more suitable than others to observe processes of multilingual inequalities, but in principle they are present everywhere, also outside urban contexts. As said before, English has become the ubiquitous language in linguistic landscapes around the globe, but minority languages also play a role in many contexts. A basic idea of the MIPS model is that it can be applied in many different contexts, although it may have to be adjusted to specific local circumstances. The model makes it possible to answer questions about the extent to which signage reveals linguistic and social inequalities.

Whereas the features of fixed signs are the common focus of linguistic landscape studies, in recent years digital screens have been placed in large numbers in urban environments. To date, these digital screens have not been important in linguistic landscape studies, even though screens are analyzed in other fields (Cashmore *et al.*, 2018; Jewitt & Triggs, 2006). In the comprehensive model that we propose here, the digital transformation of linguistic landscapes needs to be included.

It is obvious that signs can have an influence on people, who may perceive signs differently and react in different ways to elements of the linguistic landscapes. Those perceptions and practices have to be part of an integrated study, as well as the links between them.

3.11.4 Component 4: Perception – seeing and reading

Few studies have investigated the relation between signage and language users. Ben Said (2011: 68) suggested that linguistic landscape research 'ought to include voices from the people as an essential part of the interpretation of the linguistic landscape'. Yet, thus far, the perspective of actors is included in only a limited number of studies. This was the case, for example, to finding out preferences for certain languages, in Amos (2016), Garvin (2010) and Trumper-Hecht (2009). The voices of some groups were considered through street interviews with locals and tourists by Onofri *et al.* (2010, 2013). However, few studies include people's experiences, or try to see through the eyes of users and tap into their interpretations and evaluations; this is something that is part of the proposed model.

A person can look at individual signs or perceive signage as a whole when moving through an urban environment. In general, passersby will unavoidably look at the languages displayed on signs in public spaces, but not everyone sees or reads in the same way. For example, it makes a difference if a person takes the same route every day and passes by

numerous signs without paying much attention, compared to first-time visitors who are trying to find their way. It is interesting to know what people see and which of all the signs are read by whom and why. What people look at, in which language a person reads a sign and if people notice inequality of languages on signs. It is not clear which languages a person reads on multilingual signs and to which characteristics this is related or if people notice the inequality of languages on signs. Our assumption is that people see and read only a small fraction of all signs depending on their familiarity with the specific surroundings (more familiar, less reading) and are conditioned by linguistic, social and personal factors. However, this issue of attention is fairly complex. One idea is that if the text of a short bilingual sign is read, the text is usually or almost unavoidably read in both languages. Unequal multilingual competences and different language backgrounds have consequences for the ability to read the languages on signs and thus the extent to which they influence a person. One can try to find out how many signs a person looks at and for how long when they move through an urban environment. Vingron *et al.* (2017) used eye tracking to find out more about what people notice when viewing linguistic landscapes (see also Seifi, 2015). The method of eye movement recording is well established in other fields (Roberts & Siyanova-Chanturia, 2013), but it is a novelty for linguistic landscape studies.

The results of a perception study with eye tracking can provide valuable information for the linguistic input received by a person, but it probably does not tell much about the intake, the actual reading of the written texts in different languages. Thus, a second step is needed in which participants retrospectively answer questions about which signs they read and in which language; Component 5 of the model is about that aspect.

3.11.5 Component 5: Reflections, reactions and language practices

Closely linked to what people read in which language(s), is how people think and what they do with the information they process. Their interpretations of the signs are crucial for understanding their behavioral reactions and language practices, and how those connect to their linguistic and social background characteristics. For example, commercial signs target specific groups of potential buyers of a certain age, women or men, people who can afford luxury goods, etc. Some signs are aimed at tourists and others more at local residents.

The languages we know influence the way we look at the real world and members of different language groups, and people with varying levels of language competence differ in their perceptions, evaluations, reactions and behaviors. In the MIPS model, a basic idea is to find out about the empirical differences between different social groups, how they deal

with language inequalities, how and why they make use of the languages on the signs and how it affects their behavior in various ways.

An important assumption, though perhaps rather obvious, is that there are differences between people in the ways they are affected by signs in public space. The perceptions and reactions of people to signs will be influenced, on the one hand, by language-related factors such as their multilingual repertoires and language biographies and, on the other hand, by intersecting social factors of age, gender, socioeconomic status, ethnicity, race and residence, among others. The actual language practices of an individual in a specific case will further depend on the particulars of the social context, the characteristics and exact placement of the signs and circumstances such as the purpose or mood of the person concerned. The role and importance of people for linguistic landscapes cannot be easily overestimated, because as Shohamy (2015: 154) has formulated it lucidly, 'People are those who hang signs, display posters, build houses, design advertisements, draw graffiti and build fences. Yet, people are also those who read, attend, decipher and interpret LL or choose to overlook, ignore, erase and protest it'. In sum, our MIPS model aims to be encompassing and comprehensive by including policy and production, signage as a central element, as well as people perceiving and reacting to their language environments.

3.12 Concluding Remarks

In these concluding remarks, first of all we want to state that it is impossible to present a complete list of theoretical approaches, models, frameworks or concepts as they have been applied in innumerous studies. We have presented a selection and we have been able to show how each has made an effort to contribute some valuable insights on the use of language on signage. Theoretical reflections from other fields have enriched linguistic landscape studies and further theoretical notions will be discussed in later chapters as well.

As we have observed, the variety of the field makes it almost impossible to include everything in one encompassing theory (Gorter & Cenoz, 2020). We therefore agree with Shohamy (2019) that the interdisciplinary nature of linguistic landscape studies calls into question the need for such a unified theory. Moreover, it seems highly unlikely that one theoretical approach will emerge any time soon because linguistic landscape phenomena are too complex to be explained by one theory.

Today, linguistic landscape researchers have carved out a field of specialization, but an exact demarcation of the boundaries of this field is not necessary and an open attitude can be maintained toward new perspectives. Applied linguistics and sociolinguistics have always been interested more in spoken than in written language. Although those disciplines also

include a long-standing interest in written language, they are mostly concerned with reading and writing skills, literacy competence, etc. Linguistic landscape studies have added a new angle to the investigations into the use of language in society.

Obviously, texts on signs can be a visible marker of the languages present among the population of a city or a region, but the linguistic landscape is usually not a direct reflection of the sociolinguistic situation and can be better regarded as a 'carnival mirror' of linguistic power relations, where the importance of some privileged languages is magnified, while other languages are minimized or ignored (Gorter, 2013).

The study of the linguistic landscape can result in reflections on the core issues of applied linguistics, sociolinguistics and other disciplines. The diversity of approaches and disciplinary backgrounds of researchers has to be seen as an inherent feature and a richness of the field. Its diversity can continue to lead to innovative ideas. In sum, theoretical diversity is a strength and not a weakness of the field of linguistic landscape studies.

4 Research Methods: Quantitative and Qualitative Approaches

4.1 Introduction

Public signage, which is the object of most linguistic landscape studies, is usually an easily available source of written language and, at the same time, it has strong visual qualities. It is common that someone new to the field becomes fascinated by the possibilities of signs as a source of data, especially when a researcher discovers that numerous interesting questions can be asked about 'language' on signs in public spaces. Such questions include issues related to the quantities or the characteristics of the languages on display, or power relations between language groups. After experiencing such an eye-opener, it may lead a researcher to pay close attention to signage and thereafter begin to ask some basic questions about which languages can be observed on signs and why. From there onwards, different approaches can be chosen to analyze the written languages on public signs depending on the aims of the investigation, the theoretical approach chosen and the more specific research questions formulated.

The research design typically includes sampling a small or large number of digital photographs of public signage, which will then be analyzed according to some language-related features. In a large number of projects, the photographic data are combined with other well-known research methods that are available in applied linguistics, sociolinguistics and other disciplines. Such data collection tools include face-to-face interviews, standardized questionnaires, participant observation, recordings of spoken language or extracting data from existing sources such as documents about language legislation. The rules and norms of such known methods and techniques for data collection are well established and explained in various textbooks (e.g. Heller *et al.*, 2018; Hult & Johnson, 2015; McKinley & Rose, 2020) and so there is no real need to discuss in this chapter how to apply those methods in a research project. After collecting the data about linguistic landscapes, the next step in the research process is usually data analysis, although it does not always have to be strictly linear. Over the past few years, researchers have applied a

wide range of different analytic techniques for linguistic landscape data, including statistical and corpus analysis, and ethnographic, narrative, discourse and critical analysis (Gorter, 2019a; Malinowski, 2018).

We will limit our discussions to some characteristic research methods that researchers have applied in linguistic landscape studies. As we said before, what those studies share is a focus on the use of written language in public spaces as an important source of data and analyzing such data with regard to the presence, prestige, functions or variations of the linguistic, visual, typographic and other features. There are, of course, no reasons for linguistic landscape studies to be limited to only the written aspects of languages displayed on signs. Studies also include multimodal aspects of colors, images, type and font, other visuals and materials of signs (e.g. Cook, 2013; Dray, 2010; Sebba, 2013; Stroud & Mpendukana, 2009). In addition, some studies have included the soundscape of voices, music and other sounds (Backhaus, 2015; Scarvaglieri *et al.*, 2013) or smell and scents (Pennycook & Otsuji, 2015). We will focus on salient methodological issues that are in some way distinctive to the field.

According to Tufi and Blackwood (2010: 197), 'the methodologies employed in the collection and categorization of written signs is still controversial'. Likewise, Leimgruber (2020: 711) argued that 'there are no single accepted standard operating procedures for data collection and analysis'. We agree that researchers in the field continue their search for the most adequate research methods and find out how to apply them. Similar to the wide diversity in theoretical approaches (see Chapter 3), this variety of possible methods is an inherent dimension of the field.

A general distinction among research methods is often made between quantitative and qualitative approaches, a distinction obviously also existing in the field of linguistic landscape studies. The two approaches can be conceived of as contrasting and recognizable views or epistemologies on how new knowledge can be generated. On the one hand, in a quantitative approach, new knowledge is usually conceived of as objective, scientific, generalizable and replicable. Generalization and replication are seen as important aims (or ideals) of this approach. On the other hand, in a qualitative approach, new knowledge is created through contextually specific, locally relevant, many-sided and subjectively produced analysis. Formulated in this way, researchers might believe that the two approaches are mutually exclusive or irreconcilable, but others could think of the two approaches as supporting each other. In our opinion, both quantitative and qualitative methods are legitimate ways of carrying out an investigation and for us one approach is not inherently better than or preferred over the other.

In a quantitative investigation, researchers usually work with a large sample of signs (or of people) to construct a database. A sample can vary

according to the geographic area covered, the criteria for inclusion, the total quantity collected and the time period covered. The analysis typically focuses on establishing distributions of language or other features found on signs, the degree of presence (or absence) of certain languages or specific linguistic elements. Alternatively, researchers can investigate, for example through a standardized questionnaire, the perceptions, attitudes or views of people, who can be designers or policymakers, clients or shop owners, locals or visitors. In this type of project, a statistical analysis of the data and a numerical presentation of the results in the form of tables or graphs are commonly included. However, presenting quantitative distributions does not have to prevent researchers from having an eye for the details or the meaning of a single sign. A detailed analysis of a single sign can be included, even when the main aim of trying to find a trend or to draw general conclusions remains.

In contrast, a qualitative study commonly focuses more on the particular characteristics of a sign in a specific context, or on its makers or individual users. Qualitative studies often try to provide sensitivity to historical developments, social circumstances and the local context. The methodology can include (linguistic) ethnography, case studies, (participant) observation and semi-structured or informal interviews and the results are often presented as a narrative with a small number of examples, which are analyzed more or less in depth. The conclusions are often more limited in their general application. Of course, a qualitative approach does not exclude the possibility of quantifying specific features or presenting quantitative results.

Both quantitative and qualitative approaches have proved fruitful in contributing to the development of the field and both approaches continue to be important for linguistic landscape studies. Some researchers have chosen to apply a combination of different research methods and techniques in what is often called a mixed methods approach. However, sometimes it is difficult for a mixed methods approach to overcome basic differences in the creation of new knowledge, as we mentioned before.

After these general introductory remarks on the well-known division between quantitative and qualitative methods, we discuss the application of each approach in linguistic landscape research in the following two sections and then in Section 4.4 we show examples of mixed methods approaches in which both approaches are combined. Thereafter, we reflect on two specific, in some manner unresolved issues of studying signs in public spaces, which are the unit of analysis and the sampling area. Finally, we draw some conclusions on research methods.

In Chapter 5, we delve into the details of distinctive and innovative research methods such as photography, walking interviews, video analysis and eye tracking. Those methods may be less common, but they seem well suited for the study of linguistic landscapes.

4.2 Quantitative Approaches

Superficially, the question 'Which languages do we see on public signs?' could be answered by 'counting the languages on signs', but the reality is rather more complex.

To begin with, it is not always immediately evident what constitutes a sign ('What is the unit of analysis?'). Further, drawing a sample of signs can be a challenge ('How and where do you sample signs?'). We discuss these two issues of the unit of analysis and the survey area in Section 4.5. A further complication is the attribution of a text to a specific language, which is obvious most of the time, but can also be challenging, dubious or impossible. For example, authors have asked the challenging question 'Do proper names or brand names belong to a language?', which is an issue we discuss in Chapter 11 on names.

In this section, we consider some of the ways researchers have applied a quantitative approach. First, we discuss the development of a coding scheme and then we present some basic characteristics of quantitative studies.

4.2.1 Coding schemes

Researchers who apply a quantitative approach to linguistic landscapes typically create a database of the signs they have photographed and then use a scheme to code the language features or other elements of each sign. Thereafter, a statistical analysis is carried out of the distributional patterns found in the data, which are presented as the results of the investigation in the format of frequency tables or graphs. This type of study continues to appeal to many researchers because it can provide interesting and important information about a specific sociolinguistic situation and, in that sense, it can be compared to a language census, a survey or a questionnaire. It is important to remark that a quantitative approach is more than 'just counting the signs'. Researchers have to develop or apply a coding scheme that takes various characteristics of signs into account and is related to their research questions, in order to avoid presenting merely superficial results.

In their classic study, Ben-Rafael *et al.* (2001, 2006) used a relatively limited set of coding criteria, which included information about the location (city and neighborhood), domain and branch, the number of languages on the sign and which languages were the first, second and third. It was a simple and straightforward coding scheme. In our own early work, we started from this coding scheme of Ben-Rafael and colleagues and we added some variables (Cenoz & Gorter, 2003, 2006), among others, two variables from the Landry and Bourhis (1997) article. The first variable was whether a sign was an official sign placed by the government or related institutions versus a non-official sign put up by commercial enterprises, private organizations or individuals, which

were called 'top-down' versus 'bottom-up'. Second, we added a variable about the function of a sign: whether it was informative, symbolic or both. We added still other variables concerning the size of each language on multilingual signs, the presence of a translation and possible issues with grammar or lexis. For her PhD study, Edelman (2010) applied our codebook, but elaborated and refined the scheme further with variables such as the order of languages on multilingual signs, the script used and the presence of contact phenomena (see Edelman, 2010: 139–145 for the full codebook).

Barni and Bagna (2009) applied a similar coding scheme in their study of the Esquilino neighborhood in Rome. They coded each photograph of a sign for a fixed number of features (see Table 4.1). To enter the data, they used a software application, MapGeoLing, which was quite innovative at the time because for each sign it could determine its exact geographic location (georeference). In this way, they could create a map of the different immigrant languages in the urban linguistic landscape. Representing linguistic landscape data on maps has become important and, today, through the use of GPS, of course, almost any camera in a mobile phone can record the exact longitude and latitude of each photograph (see Section 5.7 on the use of geographic maps).

The coding schemes mentioned above have been applied by other researchers and were further developed in later quantitative approaches. In Table 4.1, we compare three coding schemes. First, the categorization developed by Barni and Bagna (2009); second, the refinement by Savela (2018) for his study of schoolscapes in Finland; and third, the proposal by Amos (2016) in his study of Chinatown in Liverpool. Part of the latter scheme was applied by Lyons (2020), who also included georeferencing of exact latitude and longitude and added a new variable of the estimated value of a business. Reershemius (2020) largely used the same variables, but she added a variable for the different sizes of signs in square meters (a variable also included in the *Metropolenzeigen* project and in Amos and Soukup [2020]) and a second variable distinguishing if a sign was only a text, only a picture or both. The additional variables of Lyons and Reershemius are included at the bottom of Table 4.1. Obviously, the coding schemes in Table 4.1 also largely overlap with the coding schemes we mentioned above in the work of Ben-Rafael *et al.*, Edelman and our own.

Table 4.1 offers an opportunity to see some important similarities and differences between the three schemes. The first column contains the categorization by Barni and Bagna (2009). We explained that it originated in the context of their study in Rome. In the second column, we find the proposal by Savela (2018). He wanted to add to the work by Barni and Bagna (2009), and he was aware of the proposal by Amos (2016). He started to distinguish six distinct thematic sets, which then led him to develop a data scheme that consisted of 22 different data annotation categories.

Table 4.1 Summary of coding schemes

Bagna and Barni (2009)	Savela (2018)	Amos (2016)
(1) ID observation: researcher, date, camera	(1) Administrative: ID number, date, etc.	ID number not mentioned; probably presumed
(2) Monolingual or more languages	(2) Linguistic: 1st, 2nd, 3rd, number of languages, saliency, translation, code-mixing	(1) Languages (2) Multilingualism (Reh, 2004) replicating, unrelated, intersecting
(3) Textual genre (function): poster, advertisement	(3) Function: genre, indexicality/ symbolization/iconicity, representative	(3) Communicative function: pragmatic role: name, information, slogan
(4) External position: sign's position and degree of visibility	(4) Multimodality: mode, salience, medium durability	(4) Materiality: constructed with: permanent, professional, hand-written
(5) People: staff	(5) Agency: designer, issuer, audience	(5) Authorship domain: author/body responsible: chain, individual, municipal
(6) Domain (of social life): public, work, etc. (6a) Context (subset of domain): services, administration, etc. (6b) Places (subset of context) bars, kiosks, etc.		(6) Context frame: type of place: shop, restaurant, etc. (7) Field: associated discourse: food and drink, traffic, travel, sport
(7) Location: georeferenced urban–rural, neighborhood	(6) Spatial: spaces, people, unit	(8) Locus: spatial location: wall, window, door, object
Added by Lyons (2020): (9) Estimated dollar value	Reershemius (2020) (10) Size in square meters (11) Text, picture, text and picture or not	

Amos (2016) called his eight main categories 'systems', and inside each are a number of variables. Altogether, this leads to complex and elaborate coding possibilities for each sign. Or, as he stated, 'Each of the eight systems used in this study contains between 4 and 70 variables, offering the potential for over 2 million classifications for each sign' (Amos, 2016: 133). His aim is to link statistical generalizations to detailed qualitative analyses. Later, Amos and Soukup (2020) set as their aim to come to a standard canon of linguistic landscape variables, similar to sociolinguistic variationist studies, an approach already applied in Soukup's (2016) variationist linguistic landscape study (VaLLS) (see Section 4.2.2). In their proposal, Amos and Soukup only developed a set of independent variables, because for them the dependent variable is language choice. In their canon, they include variables that can be found in Table 4.1, with slightly different labels. The aim of Amos and Soukup is to facilitate meta-analysis and cross-comparison.

Table 4.1 demonstrates some obvious similarities between the three schemes. As the table shows, each of the authors applied different labels that partly depend on the aims of their projects, their research questions, their personal preferences or ideas and on the specifics of the study. Of course, each of the main categories in Table 4.1 has been further refined to contain various sub-variables. It seems that the schemes come down to the coding of six main characteristics of each sign (apart from an administrative ID number for each unit). The basic coding categories for each sign are

(1) linguistic or language(s) related;
(2) non-language features;
(3) function;
(4) agency;
(5) social context;
(6) geographic location.

It depends, of course, on the aims of a project and on the specific research questions as to how important each of these categories would be considered, how they could be further subdivided and if all six categories would be included. The type of (statistical) analysis of the data may also be considered when developing the coding scheme.

Descriptive statistics are frequently applied in quantitative linguistic landscape studies, although more advanced techniques such as linear models are still an exception.

4.2.2 Cases of quantitative studies

As stated in the foregoing sections, numerous researchers have applied a quantitative-distributive approach when studying linguistic landscapes. Many of those studies have provided new and exciting insights into the sociolinguistic situations where they were carried out. We present some instances of these types of studies and emphasize the methodological aspects so they become an example for other researchers who want to report on similar work.

In the framework of the European network on sustainable development in a diverse world (SUS.DIV), we carried out a straightforward quantitative study in Rome. The study was part of a larger local project on multiculturalism. With the help of a research assistant, a corpus of 1,365 signs was collected from 12 streets in 4 neighborhoods, selected to reflect the diversity of the city (Gorter, 2009). The same coding scheme was used as in our classic study (Cenoz & Gorter, 2006). Four research questions were asked: on the languages displayed; the differences between the neighborhoods; between top-down and bottom-up signs; and the characteristics of multilingual signs. Answering the research

questions, the results were presented descriptively in the following way. First, the four neighborhoods were compared in two bar graphs, and then a table was drawn up listing the 18 different languages found. We did not include graffiti or braille in that count, because braille is not a language but a tactile code in which any language can be written, in our case Italian. Finally, we presented three tables with percentages for the key variables. The publication also included four photographs to illustrate different types of signs. The results showed a high degree of linguistic diversity in those neighborhoods of Rome. Since the study was part of a larger project, it was able to demonstrate the added value of linguistic landscape as a research tool next to studies of, for example, multicultural markets (Bracalenti *et al.*, 2009).

In a similar descriptive study, Lado (2011) collected signs from two commercial streets in the center of the cities of Valencia (102 signs) and Gandía (146 signs) in the autonomous community of Valencia, Spain. In this community, the Catalan language (Valencian) is co-official with Spanish. The three research questions focused on differences between top-down versus bottom-up signs and the display of linguistic and ideological conflicts in the linguistic landscape. The results were presented in two tables, one for each street, with percentages and absolute numbers for the languages on top-down and bottom-up signs. The publication included four photographs of signs as illustrations of graffiti, and of top-down and bottom-up signs. Lado's results uncovered that in the Valencian Community, the government's language policy did not affect the bottom-up signs. More studies on Catalan as a minority language are mentioned in Chapter 6.

In another, similar but somewhat larger quantitative study, Muth (2012) compared the capitals of two post-Soviet societies: Vilnius in Lithuania and Chişinău in Moldova. He posed three research questions about which languages are visible and the differences between the two cities; the assumptions about Russian as a minority language; and about the relationship between the occurrences of minority languages related to the political framework. In both cities, he selected four districts (neighborhoods) based on their sociogeographic properties: the old center, the business district and two residential areas. In each district, he chose the main street and some side streets to collect digital pictures of signage. The sample in Vilnius was 808 items and in Chişinău 1,309 items. For the unit of analysis, he took a shop front or a whole establishment, following our approach (Cenoz & Gorter, 2006; see also Section 4.5.1). The results were presented in the form of five tables with the percentages of the different languages displayed on bottom-up signs for the whole city and for the four districts, as well as the dominant language in bi/multilingual signs. To illustrate the position of Russian in the two cities, he also included three photographs of signs: a billboard, a clothing store and a tattoo studio. The quantitative results indicated important differences

between the two cities because even though the number of speakers of Russian is similar, substantially more Russian was visible in Chişinău.

Another example which can be seen as fairly typical of studies using quantitative methods took place in Hong Kong, where Chinese and English are the two official languages. Lai (2013) investigated the linguistic landscape by asking four research questions about the dominance of Chinese and English; the influence of mainland China; the representation of minority groups; and the differences between the center and a suburban area. She collected a sample of 1,160 signs in 4 of the 19 districts of the city: the central business district, a tourist hub, a local shopping and entertainment area and a residential area. In each district, she identified one main street and one side street of comparable length and with commercial activities (Figure 4.1). The results are presented in five frequency tables with the absolute numbers and percentages of monolingual, bilingual and multilingual signs, the languages on monolingual signs, on bilingual and multilingual signs, the prominence of languages and a comparison of the four districts. The results showed that just over half of the signs were monolingual, mostly in Chinese or in English, whereas just under half were bilingual, almost all Chinese–English. Less than 2% of the signs had three or more languages, including Japanese, French or Korean. She used 12 photographs of signs not only as illustrations of the prominence of languages, but also for a more qualitative analysis of the differences in the use of the two official languages. Lai concluded that Chinese is more prominent in the Hong Kong linguistic landscape, although overall, the city displayed a bilingual profile. More studies on English in Hong Kong are summarized in Chapter 9.

Replicability, as we stated in the introduction, is often an important dimension of a quantitative approach. This is an explicit aim in Lyons and Rodrigues (2017) who present a replicable framework of a quantitative and qualitative analysis of the linguistic landscape. They investigated the largely Hispanic neighborhood of Pilsen in Chicago, Illinois, which

Figure 4.1 Three shop signs: Chinese dominant, English dominant and Chinese only (Hong Kong)

is undergoing a process of gentrification. The two research questions regarded the correlation between language representation and socioeconomic changes and, second, the relationship between English and Spanish. In five areas of the neighborhood (three main commercial streets and two residential areas), they collected 425 signs, following the definition provided by Backhaus (2007) of a spatially identifiable frame and excluding top-down, government-placed signs. The signs were coded for three variables: the language used, frame (or context) and location. Based on Goffman's frame analysis (see Chapter 3), they distinguished four frames: recent immigrant, familial, established and alternative, and hybrid frame. They performed statistical analysis through binomial logistic regressions to establish the significance of the location in predicting the frame and the language, and the significance of the frame in predicting the language used. In the article, the ideas and results are presented using three maps of the neighborhood, two figures with line drawings of the frames, four tables with absolute numbers and percentages and two tables with the outcomes of a regression analysis. Also included are two figures with graphs (distribution of languages and frames) and seven figures with one or two photographs of signs to give examples of different frames. The authors concluded that 'gentrification is much more than socioeconomic change or even linguistic change: its impact can also be found in the varying ideologies of representation' (Lyons & Rodrigues, 2017: 358).

One of the strongest proponents of a quantitative approach is Soukup (2016, 2020), who named her approach the variationist linguistic landscape study (VaLLS). The label is related to variationist sociolinguistics and its principles, which she sees as a useful framework for what Amos and Soukup (2020: 59) call 'a relaunch of quantitative linguistic landscape analysis'. The main principle is the principle of accountability, which purports that data have to be collected in a count-all procedure in order to include all signs and all languages. Soukup (2020) contains a lengthy discussion on decisions surrounding survey area selection (see Section 4.5.2).

4.2.3 Advanced statistical techniques

Lyons' (2020) aim was to take quantitative analysis a step further because she had observed that most quantitative linguistic landscape studies are descriptive, only reporting frequencies or comparisons of percentages. She shifted to inferential statistics and the application of mathematical models, such as generalized linear regression models (GLM) and generalized additive models (GAM). Lyons adopted four of the eight classifications (or 'systems') from the coding scheme by Amos (2016): language, communicative function, materiality and context frame. She added 'locus', the location in a space, by georeferencing the exact latitude and longitude of each sign. Another addition was the estimated

dollar value of the business, based on the social media website Yelp (see Table 4.1). Her quantitative analyses included as many relevant variables as possible, depending on the research questions. She applied the GAM in a case study of the Mission district in San Francisco and she was able to show new levels of detail by looking at small and gradual changes in spatial developments in relation to other elements in the linguistic landscape. Lyons (2020) included some illuminating maps based on the georeferencing of her data in order to show the language distribution on individual signs in detail (see also Section 5.7 on maps). She wanted to demonstrate 'the kinds of research questions and data that can be tackled using quantitative methods like GLMs and GAMs and the exciting and promising insights these techniques may provide'. For her, this was not only about statistical significance, but also about considering the social significance of the linguistic landscape data.

In the European research network on sustainability and diversity, we applied inferential statistics and linear regression models through our interdisciplinary collaboration with economists, with some similarities to Lyons (2020). As has been mentioned, we explored the possibility of using econometric models to analyze linguistic landscapes when we looked into the use and non-use values of signs (Cenoz & Gorter, 2009; Nunes *et al*., 2008; Onofri *et al*., 2010). We applied the contingent valuation method to an allocation scenario in which people were asked to answer standardized questionnaires about the linguistic landscape during street interviews. One research question concerned 'preference structures' (i.e. 'What languages do the interviewees prefer?') and another question was about 'priorities' (i.e. 'How much is it worth to them?'). The results of this study were reported in Aiestaran *et al*. (2010) (Figure 4.2).

In their study of the linguistic landscape of the Marshall Islands, Buchstaller and Alvanides (2017) tried a methodology in which they combined the variationist sociolinguistic approach, VaLLS (Soukup, 2016), with the geospatial visualization methods of density maps (see Section 5.7 on the use of maps). In Mājro/Majuro, the capital atoll of the Marshall Islands, along the main road and in secondary streets, they photographed a corpus of almost 2,500 signs. They present the results in various maps, tables, graphs and a number of photographs of signs. For the variationist part, they explored the interplay of factors conditioning code choices by means of two separate logistic regression analyses. First, exploring a model of the factors that influence the presence of the Marshallese language and second, a model that tested the factors related to the signage that is in agreement with the new bilingual language policy. Similarly, Restrepo-Ramos (2020) applied a principal component analysis (PCA) in his quantitative analysis of the linguistic landscape of the Caribbean Archipelago of San Andres (Colombia). In this way, he could reduce the data dimensions and then correlate authors of signs with the

Figure 4.2 Basque-Spanish sign in Donostia-San Sebastián

different geographic zones of the islands and with language preferences. The outcomes clearly visualize a preference for bilingual signs, with Spanish as the most frequently displayed language and a small number of signs with Island Creole on them. He also included some sophisticated maps as visual representations of the languages in different geographic zones (see Chapter 6). The works mentioned represent case studies of the application of advanced statistical analysis techniques.

4.2.4 Smartphone apps for data collection

From the foregoing, it has become clear that quantitative studies are usually based on a substantial database in which photographs of signs are stored for later coding and analysis. This can vary from a few hundred to tens of thousands of items. Creating a large database of signs is made possible by using a smartphone app that is linked to a website. In this way, a large amount of photographs of signs can be stored after being collected by various researchers, students or basically anyone who wants to contribute as a form of citizen science. We can summarize the two most important apps: LinguaSnapp and Lingscape.

In October 2015, the Multilingual Manchester project at the University of Manchester launched the LinguaSnapp smartphone application for capturing and annotating images of signs (see https://www.linguasnapp.manchester.ac.uk/). Its primary aim is to develop a multilingual landscape map. The app asks its users to take photographs of multilingual signs which the user then codes for variables such as language, alphabet, translation, district, type, content, language purpose, visual

dominance, position, sector, message function, outlet, design, audience selection and arrangement of languages. The photos are georeferenced and uploaded to the website where different selections can be made among the variables. After clicking on a dot on the map, the image of the sign is shown as a pop-up; information about the variables per image is included and it is linked to Google Street View. The LinguaSnapp app is part of the broader project that aims to study urban multilingualism and develop awareness of linguistic diversity in the city-region (Gaiser & Matras, 2021).

Matras *et al.* (2018) presented an example of the application of the LinguaSnapp app. They examined Yiddish signage in the Higher Broughton neighborhood of Salford in Manchester, which has a concentration of Orthodox Jewish residents. For this study, the researchers visited the same locations several times. They analyzed the data from the perspective of interaction pragmatics, where signs are seen as communicative acts that have affective, appellative, mobilizing, regulatory and prohibitive functions.

Photos of signs from anywhere in the world can be uploaded, and LinguaSnapp has special projects in cities such as Jerusalem (https://www.linguasnappjlem.manchester.ac.uk/), Melbourne (https://www.linguasnappmel.manchester.ac.uk/) and Saint Petersburg. A localized version was created in 2018 as part of a University of Hamburg project, which focuses on the multilingual landscapes of Hamburg, the second largest city in Germany. For the time being, the website (https://www.linguasnapp.uni-hamburg.de/) and its publications are mainly available in German (Androutsopoulos, 2021). In 2022, LinguaSnapp Eesti was added by the School of Humanities in Tallinn, Estonia (https://linguasnapp.ee/).

In a short review of the app, Li (2022) mentions as advantages the tagging of signs, adding GPS coordinates and analytic descriptors. Possible disadvantages are in the editorial system that may slow innovation and the manual review to remove unwanted elements.

Lingscape is the second major app for documenting linguistic landscapes. The app was developed at the University of Luxembourg and made available in the fall of 2016 (Purschke, 2017a, 2017b). On its website (https://lingscape.uni.lu/), the aim is stated as 'to analyse the diversity and dynamics of public writing'. The Lingscape app and website are presented as a project of citizen science or participatory research, since it invites anyone to take part by photographing public signs through the app, annotating the signs, uploading them and thus contributing to the online map and the central database. As of October 2022, the database contains some 35,000 signs. The app is thus a type of crowdsourcing for data collection.

The Lingscape app contains an elaborated annotation system for every sign that comprises 14 categories (directedness, discourse, dominance, dynamics, form, layering, material, mode, modification, script, status, supplement, temporality and translation). These categories largely

overlap with the variables mentioned in Table 4.1, but some labels are slightly different. For example, 'directedness' refers to the well-known distinction between top-down and bottom-up signs. Moreover, five different types of 'layering' are distinguished, such as crossing out a sign, comments later added to a sign or historic layers in the same sign. The website mentions various projects that have made use of the app, among others, by students in Vienna and in Windhoek, Namibia. This shows how the app can be particularly useful in an educational context (Purschke & Trusch, 2021).

The LinguaSnapp and the Lingscape mobile apps are quite similar, although Purschke (2017a) presented a detailed comparison of their technical differences. One major difference is that Lingscape includes any sign that contains writing or lettering, whereas LinguaSnapp focuses on multilingual signage.

One critical reflection can be given about the use of these apps. Some linguistic landscape researchers might initially be hesitant about the use of such apps as part of linguistic landscape studies. Although their aim is to be a service for others, it is not immediately obvious how the data of these apps could be used by other linguistic landscape researchers or which specific research questions can be answered through the available online data, other than for a project designed beforehand with the app in mind. Such a purposeful use as a tool for data collection occurred with the LinguaSnapp Hamburg project. Another obvious application is using one of the apps in a course where students are taught to work with linguistic landscape materials, as it then becomes a relevant exercise. The two apps are good indicators of the adaptability of the field due to technological developments.

4.2.5 Critiques of a quantitative approach

Many authors are aware of the value of a quantitative approach, but there has been a tendency to reduce it to 'counting languages on signs' or even 'merely counting signs' (Blackwood, 2015). For example, Coupland and Garrett (2010) criticized a quantitative approach because it is not sensitive enough to historical processes and contexts, and it misses out on textual nuances. They argued that a quantitative approach 'tends to sacrifice local contextual detail for "big-picture" distributional trends' (Coupland & Garrett, 2010: 13). For them, in contrast, a qualitative approach can ask different questions and signage can be analyzed in terms of different meanings and value systems, and also in terms of the meanings people take from a linguistic landscape. This critique, of course, goes back to the general differences between quantitative and qualitative approaches that we mentioned in Section 4.1. The critique includes an argument that statistical analysis of a sample of signs gives more emphasis to frequencies of languages in public spaces than to the

content of the signs. Supposedly, only limited information is drawn from the results and meaningful interpretations are lacking. In that sense, Shohamy (2019: 28) has a point when she argues that 'the sole use of quantitative methods often masks the complexities of language diversity and is viewed as "necessary" but not "sufficient"'.

Blommaert (2013) strongly proposed a qualitative approach (see Section 4.3), but at the same time he acknowledged the importance of a quantitative approach. Thus, in his study he included some counting and he argued that 'by introducing qualitative distinctions between signs (…) we can make the move from counting languages to understanding how they can inform us about social structure' (Blommaert, 2013: 64). Some authors suppose that the field has taken a turn away from quantitative work and that qualitative studies have become predominant (although see Chapter 2 for our counterarguments). For such reasons, authors such as Amos (2016), Savela (2018), Soukup (2016, 2020) and Lyons (2020) want to 'rehabilitate' or 'relaunch' quantitative studies. Amos (2016) pointed to the advantages of comparability and a diachronic potential, and he concludes by proposing a mixed or hybrid approach of quantitative and qualitative elements. Savela (2018: 42) mentioned the importance of the research design and argued that quantitative approaches can help the researcher better 'find what is present and what is absent'. Lyons (2020) also offered some counterarguments to the critiques of a quantitative approach. She claims that her categories of communicative function and context frame reflect the concern with meanings and contexts of signs in qualitative studies and also her category of materiality links to interest in multimodal aspects. Lyons (2020) argues further that quantitative methods continue to offer significant insights, especially when inferential statistics are used and on condition that they are carried out with caution and precision. In addition, she mentions, not unimportantly, that replication is made easier by a quantitative approach. Backhaus (2019: 165) defends a quantitative approach by arguing: 'it is my contention that [one] should not entirely discredit the element of counting that has motivated and shaped much of the previous studies'. According to Backhaus, a mixture of quantitative and qualitative methodologies leads to the best results (see Section 4.4).

Overall, we can observe that the analysis of quantitative data is not usually limited to just 'counting languages', but includes a range of variables and is often supported by a qualitative analysis. In the next section, we discuss qualitative approaches and thereafter the combination of both.

4.3 Qualitative Approaches

In the introduction to this chapter, we said that qualitative studies focus more on the distinguishing characteristics of a small number of

signs in specific local contexts, or on authors and users of signs, including attention to historical developments. Qualitative approaches are important for the field, for the design of research projects, the research questions asked, the data collection and the subsequent analysis.

In some early linguistic landscape studies, investigators chose a qualitative approach. For example, in his comparative study of the 'words on the walls' of the multilingual cities of Paris and Dakar, Calvet (1990) analyzed the differences between the two cities in terms of the social functions of languages. He observed how languages coexist in Paris, but do not mix, whereas in Dakar the interaction between languages is more obvious. In the study of the languages of Jerusalem, Spolsky and Cooper (1991) showed how a couple of signs can demonstrate a historical layer that uncovers changes the city has undergone (see Chapter 2 for details on the example). Lou (2007) is another early example of qualitative ethnographic fieldwork in her study of Chinatown in Washington, DC. She collected signs of the linguistic landscape, observed community meetings and held interviews with residents. In that way, she was able to uncover the nuances between the Chinese signage adopted by non-Chinese stores and those of Chinese stores. Likewise, Leeman and Modan (2010) carried out a qualitative study in the same Chinatown in Washington, DC, in which they attended to the specifics of the linguistic and spatial contexts and focused on the meaning of the languages on the signs they examined. Another qualitative case study can be found in Malinowski (2009), who obtained his insights from interviews with Korean shop owners. He reached a joint interpretation with them about their store's signs, to figure out issues about the use of Korean, English or both. Taylor-Leech (2012) took a similar qualitative approach when analyzing language choice in the linguistic landscape of Dili in Timor-Leste. She examined signs that illustrated indexical, iconic and visual grammatical features in order to demonstrate the links between the linguistic landscape and the wider social, economic and political context. Similarly, Papen (2012) provides an example of a qualitative approach in her study of a trendy neighborhood in Berlin. First, she sampled signs of one block of six streets leading to a central square by taking detailed notes of all signs as well as numerous photos, although a complete inventory of every sign 'was too ambitious a goal' (Papen, 2012: 62). This is, of course, a fairly common approach in many linguistic landscape studies. Second, she carried out 25 semi-structured interviews with sign producers, such as shop owners, activists and street artists, who enabled her to 'identify and analyse some of the different voices present in the linguistic landscape' (Papen, 2012: 77). The results do not include the quantitative data, but an analysis of a selection of individual signs intertwined with comments by its producers/owners. This qualitative analysis demonstrated that the linguistic landscape 'is part of what makes the neighborhood fashionable

and attractive' (Papen, 2012: 75) (see also Section 9.4.1 on English in second place and Section 12.3.2 on gentrification).

These studies show that by using a qualitative approach numerous interesting research questions can be asked and answered, including questions about authorship or agency: 'Who puts up the signs, when and where?'. Other questions relate to the readership or audience of the signs: 'Who reads the signs, how are the signs perceived?' and 'What are readers' attitudes toward the languages on display?'. Simple answers to such research questions are often difficult to provide.

In terms of qualitative approaches, the ethnographic linguistic landscape approach (ELLA) stands out as one of the most relevant. A first outline was presented in Blommaert (2013), but the name was given in a further elaboration of ELLA in Blommaert and Maly (2016). Later, ELLA was extended to include online worlds and renamed ELLA 2.0 in Blommaert and Maly (2019). A short outline of this useful and important approach is given here. Central to Blommaert's ethnographic approach are both the ideas on a material ethnography of Stroud and Mpendukana (2009) and on geosemiotics by Scollon and Scollon (2003) (see Chapter 3). In combination with the concept of superdiversity (Vertovec, 2007), Blommaert carried out a qualitative study of the linguistic landscape of the neighborhood of Berchem, in the city of Antwerp, where he had been observing signs over a period of 10 years. He looks into social change and complexity and provides a fascinating account of how multilingual signs can be read as telling the history of changes in his neighborhood. The multilingual signs are like chronicles documenting the intricate histories of the place and this complex system can be seen as a multiscalar order. At the scale of the neighborhood as a whole, it is cohesive and characterized by conviviality, but at other, lower levels in the relations between groups there are conflicts. Thus, the interpersonal level can include heated and unfriendly discussions about wages. The regimes of power and control are also distributed unequally over different groups, the neighborhood is dynamic and things change all the time. For example, Blommaert compares three posters: the first is in Turkish, produced in a professional manner, while the other two are in Polish and Spanish and are more 'homemade' in manner. While the first sign indicates an established community of migrants, residing in the neighborhood for a long time, the other two posters publicize groups of more recently arrived communities with modest resources. Blommaert's (2013: 16) work provides a strong case for linguistic landscape studies to become ethnographic, microscopic and detailed investigations, in order to 'bring out its full descriptive and explanatory potential'.

The same qualitative ethnographic approach appears in a case study of public signage in the superdiverse neighborhood of Rabot in the city of Ghent. Blommaert and Maly (2016) emphasized a historically layered view of multilingualism and multiculturalism. Using ELLA, the

researchers are able to diagnose a neighborhood based on signage, and using data about population distributions and different historical layers in this complex, superdiverse neighborhood. The qualitative elements of the signage are used to find distinctions between older and newer groups, as well as the way in which relationships between groups are organized. These findings point to the ambitions and identity aspirations of different groups and are part of historical transformation processes (Figure 4.3).

In an extension of ELLA, Blommaert and Maly (2019) follow the references to online information in websites and social media as displayed in many signs. This implies that signs are not only physically in a concrete place, but they are also connected to a translocal online sphere. As the authors argue, ‘We have moved from a sociolinguistics of offline areas and communities into a sociolinguistics of digital culture, and both are inextricably connected in a locally emplaced sign’ (Blommaert & Maly, 2019: 6). Moving back and forth from offline to online is important for ELLA 2.0 to get a better view of the actors and connections between places. In the analytic work of Blommaert (and Maly), the processual and dynamic character of linguistic landscapes, as well as their complexity, is made evident.

Although not using ELLA, the study by Song (2018) is an interesting example of the combination of an online and offline analysis of linguistic landscapes. Her qualitative approach is, among others, based on how we introduced translanguaging as an approach to multilingual linguistic landscape studies (Gorter & Cenoz, 2015a; see Chapter 6). She looks into ‘translingual practices’ through a case study of a photo studio in Shanghai. The offline data include photographs, interviews and documents on urban planning and the history of the neighborhood. The online data include the Weibo homepage and social media posts over a period of several months. Examples of the analysis include intertextual references in the bilingual English–Chinese logo, and the different historical layers of multilingual signage on the storefront (from 1929 to the present). The

Figure 4.3 Rabot, the superdiverse neighborhood in Ghent

targeted consumers 'need to be able to understand the translingual logic of the multilayered, trans-spatial semiotic chain across the online and offline linguistic landscapes' (Song, 2018: 24).

Other examples of a qualitative approach can be found in many of the studies we discuss in other chapters, such as our own work on translanguaging (Gorter & Cenoz, 2015a; see Chapter 6), Rasinger (2018) or Van Mensel and Darquennes (2012) on minority languages (see Chapter 7), Sloboda (2009) or Shulist (2018) on language policy (see Chapter 8) or Jocuns (2019, 2021) or Choi *et al.* (2019) on English as a global language (see Chapter 9). Studies in the educational contexts have also taken a qualitative approach, for example, the account of an ethnography course by Li and Marshall (2018) (see Chapter 10). What most of those studies have in common is an approach in which the special and unique aspects of signs are foregrounded, usually in their specific historical and social context. Pandey (2017) pointedly critiqued the 'acontextual', 'static', 'stills-oriented' and 'receptor-centric' approaches in linguistic landscape research, and calls for in-depth qualitative accounts that seek to uncover the back stories behind signs in order to uncover deeper meanings.

The results of qualitative studies are usually based on a relatively small set of non-random and selective empirical data, for example, a walk through the city (Kallen, 2010) or a few tourist visits (Sebba, 2010). The data can illuminate the relationship of individual signs with issues of multilingualism and with wider social, economic or political developments, but at the same time, qualitative studies make replication and generalization more difficult. Amos (2016) has criticized a qualitative approach because on its own it cannot provide either the diachronic or the comparative aspects of linguistic landscapes. In a similar vein, Lyons (2020: 31) points to 'the fluidity of interpretation' that researchers may have in evaluating the importance of signs in an ethnographic approach.

In a widely quoted article, Tracy (2010) asked the question: 'What makes for good qualitative research?'. She emphasized a range of qualitative methods which she contrasted with those in the quantitative community where criteria for good research are validity, reliability, generalizability and objectivity. She suggested the following eight criteria for high-quality qualitative research: (1) worthy topic, (2) rich rigor, (3) sincerity, (4) credibility, (5) resonance, (6) significant contribution, (7) ethics and (8) meaningful coherence. She further elaborated each of these criteria, for example, for the criterion 'worthy topic' the dimensions are that the study is relevant, timely, significant and interesting. Or, for the criterion 'rich rigor', a study has to use sufficient, abundant, appropriate and complex theoretical constructs, report the data and time in the field, the sample, the context and the processes of data collection and analysis. This list is not intended as a single standard of positivist criteria, but more as a set of markers that make it possible to evaluate the rather different traditions in qualitative research.

It can be useful to look at specific cases taking Tracy's criteria into consideration because some studies do not give sufficient details on how signs were selected, what their unit of analysis is or what the boundaries of the survey area are. It is not always made clear why a contribution is significant, if ethics are considered or if there is coherence with the stated goals or the link between the literature, the research focus and the results.

4.4 Mixed Methods: Combining Quantitative and Qualitative Research

As both Amos (2016) and Savela (2018) have explained, the aim of a quantitative approach is usually to generalize about what applies to all items and to discover patterns, thus giving a broad overview; therefore, this approach will fall short in the details and unique aspects. In contrast, in a qualitative approach, the special, the unexpected or even the exotic elements in a linguistic landscape are attractive and researchers try to go deep into the details of a limited number of examples in one specific local context. As we have tried to make clear in the foregoing, both approaches have advantages and disadvantages. For these reasons, various scholars, among others, Mitchell (2010), Comajoan Colomé and Long (2012), Blackwood and Tufi (2015), Soler-Carbonell (2016), Ben-Rafael and Ben-Rafael (2015, 2019) and Reershemius (2020) combine research methods to report quantitative trends combined with a qualitative analysis of a limited number of detailed examples to illustrate the main points of their research. Below, we describe some details of how these researchers have applied more than one method in their studies.

A solid example is the study by Mitchell (2010), who started out from a newspaper report in which metaphors were used such as 'invasion' and 'flood' which represented a 'discourse of fear about Latino immigrants' (Mitchell, 2010: 169). He successfully combined his detailed media discourse analysis with a quantitative investigation of the linguistic landscape of the neighborhood in question in Pittsburg, Pennsylvania. He also included observations of the spoken languages which he overheard in the street. Mitchell found that the linguistic landscape is monolingual because 96.5% are English-only signs and the 'soundscape' is also dominated by English spoken by 80.7% of the people he overheard.

A similar approach, though applying different methods, was used in Barcelona by Comajoan Colomé and Long (2012) who analyzed the linguistic landscapes of three streets (we mention the outcomes in Chapter 7). They studied the relative prominence of the languages in terms of quantitative and qualitative dominance. Variations in language usage are related to the context, that is, the demographic composition of the neighborhoods. In a follow-up study, Comajoan Colomé (2013) combined research methods when he investigated 120 establishments in one central shopping street in Barcelona. He first held an interview with the owner

or a staff member of each establishment, then he took 728 photographs of signs and, in a later step, he went back to situate the photographs in the totality of the visual configuration of each establishment. His interest was in the visual impact and relations between the main elements (e.g. the shop name), the secondary information (e.g. on the type of shop) and smaller elements (e.g. timetable). He contrasted the findings of his study with the perception of the amount of Catalan of those interviewed and he found that the two measurements were in agreement.

Blackwood and Tufi (2015) characterized their study in various cities along the Mediterranean coast in France and Italy as a mixed methods approach, even though the quantitative part was prominent. They position their work in relation to three major linguistic landscape projects: the study of Jerusalem by Spolsky and Cooper (1991) because they similarly want to contextualize all of their findings; the study of Tokyo by Backhaus (2007), as they also capture the multilingualism of the linguistic landscapes with statistical data; and the work of Blommaert (2013) because they give special attention to the qualitative analyses of signs in terms of the people who place the signs, who read them, their functions and the materials. Blackwood and Tufi mention as their explicit aim the reconciliation of quantitative and qualitative perspectives in data collection and analysis (for some of the outcomes of their study, see Chapters 7 and 9).

Another clear example of a mixed methods approach can be found in a study by Soler-Carbonell (2016). First, he presents a quantitative description of the distribution of languages on monolingual and multilingual signs (n = 161) in the four ports of entry of tourists into the city of Tallinn, Estonia, plus in the most touristic street. In three tables, Soler-Carbonell shows that the five sites are highly multilingual, but differ according to intended audiences. Second, he presents a more in-depth qualitative analysis of a limited set of 11 examples of the most interesting signs in the different settings. In his conclusions, he argues that the quantitative distributions can be an index for the linguistic repertoires of the people who pass through the sites, but that he also found hybridity and fluidity in the signs, as well as a hierarchy of English, Russian and Finnish as the most important foreign languages in the linguistic landscape of the Estonian capital (Figure 4.4).

Ben-Rafael and Ben-Rafael (2015, 2019) studied the downtowns and some specific neighborhoods in three and then, in their later monograph, eight world-cities. For each world-city, the authors provide extensive historical, demographic and socioeconomic background information. Through a quantitative method the data are compared, to which a qualitative analysis is added of, what is called, the singularity of a specific type of item, such as murals. They claim to 'use a methodology typical of mainstream linguistic landscape studies' (Ben-Rafael & Ben-Rafael, 2019: 25), but in fact this is only partially so. Some of the choices are

Figure 4.4 Sign in Ülemiste shopping mall near the airport (Tallinn)

uncommon and are not often found in other studies. It is more of an exception to exclude all top-down signs placed by government institutions and, more importantly, to focus exclusively on the names of establishments and omit any other accompanying texts. Names are, of course, important, but only one part of linguistic landscapes and by focusing on names only, one probably leaves out more than half of all signs (see Chapter 11). A consequence of the choice is that the sample of each street is relatively small (about 100 items or less). In the downtown streets, a relatively important role is played by what they call big commercial names (BCNs; see Chapter 11 for a discussion). The results of all the streets they investigated are presented in the format of separate tables with percentages for each language (i.e. each name is allocated to one language, either as bilingual or as a BCN) and, as an illustration, each time two photographs of names on storefronts. In a final comparison of the downtowns, the residential areas and the ethno-cultural quarters, a summary is given of different configurations of languages (and BCNs).

Reershemius (2020) built the Krummhorn Corpus, a database of 1,294 images of all visible signs, except road signs, which she collected in a sample of 19 villages in rural northern Germany where Low German is commonly spoken. She used similar research methods as the *Metropolenzeigen* project (Ziegler *et al.*, 2018; see Chapter 6 for a summary). The results show that the public spaces of the villages have relatively few

signs, and most signs are commercial (60%), somewhat less infrastructural or regulatory (21%) and even less were related to private homes (15%). Commemorative, artistic or transgressive signs are exceptions. Reershemius presented the distributions in one graph and included no tables. She complemented the quantitative results by adding a more qualitative analysis. In this area, tourism is an important economic sector, where private renting of holiday accommodation occurs in all villages. Low German is sometimes used on signs in an emblematic way, which makes cultural heritage a selling point.

In our own work, we have applied both a predominantly quantitative method (Cenoz & Gorter, 2006) and a more qualitative analysis (Cenoz & Gorter, 2008). More recently, we have offered a comprehensive model called multilingual inequalities in public spaces (MIPS), which aims at an all-inclusive, holistic framework (Gorter, 2021; see Chapter 3 for an elaboration). This is an alternative overarching framework that aims to include both qualitative and quantitative approaches as methodological approaches or combine them. In that sense, we agree with Blackwood (2015: 39–40) who argued that the ideal way to work in linguistic landscape research is when quantitative and qualitative approaches feed into one another in a symbiotic approach, in order to provide a fuller, more comprehensive understanding of the phenomena under investigation. Amos (2016) reiterates this view in his analysis of Chinatown in Liverpool, and he tries to demonstrate the value of bringing both approaches together, so that the qualitative details of an ethnographic approach are combined with the statistical details of a quantitative approach. Even Soukup (2020), who wants to rehabilitate a quantitative approach, is of the opinion that a mixed methods design is necessary to understand the complexities of meaning-making processes.

Overall, we can observe that the debate in linguistic landscape studies about the application of a mixed method research design is still limited and much can be learned from other fields. In this context, *triangulation* is a term, or metaphor, that is often used to indicate the combination of more than one source of data collection, data analysis or also of different theoretical approaches. Its origins can be found in cartography, where it is used to determine the location and distance of a place from the two angles of a baseline, applied for the first time in 1533 by Gemma Frisius. The assumption of triangulation is that the outcomes, interpretations or conclusions become more accurate, credible or trustworthy through some form of combining methods. As Tracy (2010: 943) argued, 'Multiple types of data, researcher viewpoints, theoretical frames, and methods of analysis allow different facets of problems to be explored, increases scope, deepens understanding, and encourages consistent (re)interpretation'. An alternative term is *crystallization*, where the idea is to replace the two-dimensional metaphor of a triangle with a three-dimensional crystal. The goal is not so much to find one single truth, but

'to open up a more complex, in-depth, but still thoroughly partial, understanding of the issue' (Tracy, 2010: 844). Rose and Johnson (2020) have emphasized how triangulation can be used in the field of leisure studies to enhance validity and reliability and thus the overall trustworthiness of the research. Those authors propose to integrate trustworthiness as a component in all research studies. Östlund *et al.* (2011) discuss mixed methods and triangulation for the nursing and health sciences. They distinguish between three different outcomes from the analysis: convergent (when the findings lead to the same conclusion), complementary (when the results supplement each other) and divergent (when the results provide different or contradictory findings). These authors conclude that it is 'particularly important that researchers clearly describe their use of the approach and the conclusions made to improve transparency and quality within mixed methods research' (Östlund *et al.*, 2011: 382). In a mixed methods study, the purpose of triangulation should be made clear so that it can be determined how the methods are related to one another, how the findings can be integrated and how they are related to the theoretical perspective(s) chosen.

Obviously, the arguments given above by Blackwood, Amos and Soukup about mixed methods show that triangulation is considered a valuable strategy because it can potentially take advantage of the strengths of both quantitative and qualitative methods, but there is little linguistic landscape scholarship that operationalizes the actual process.

After this discussion of the upsides and downsides of quantitative, qualitative and mixed methods approaches, it is obvious that a choice among the many possibilities remains 'a thorny debate at the heart of the field' (Pavlenko, 2009: 252) with, on the one hand, arguments regarding generalization and replication pleading in favor of quantitative methods, while on the other hand, subjective details and contextualization that makes qualitative approaches more attractive. For us, it is clear that both types of approaches, quantitative and qualitative, are necessary and both are valuable in linguistic landscape studies, either on their own or combined.

4.5 Unresolved Issues: Unit of Analysis and Survey Area

Two issues that are important for linguistic landscape studies have been discussed by several authors; however, as Blackwood (2015) mentioned, they have not been resolved completely. First, there is the issue of the unit of analysis and, second, the sampling area, and we reflect on both issues in the following two sections.

4.5.1 Unit of analysis

The issue of the unit of analysis is more often discussed in the context of quantitative studies, but of course, it can also be relevant for

qualitative studies. The linguistic landscape refers to multiple forms of 'language' as they are displayed in public spaces (see Chapter 1). An important issue then becomes, 'What is the thing that researchers look at?' or 'What is it that makes up a sign?'. In other words, if one wants to investigate signs, 'What constitutes the unit of analysis?'. In quantitative research, signs are classified and codified and most authors give at least a working definition of the unit of analysis. However, the unit of analysis can be hard to define. Decisions about the unit of analysis are important because they concern crucial methodological issues which imply selection processes and can allow for comparability (or not) between studies.

In his large-scale study of multilingualism in Tokyo, Backhaus (2007: 66) defined the unit of analysis as 'any piece of text within a spatially definable frame'. This definition has been followed by many researchers, and in an overview of the field Van Mensel *et al*. (2016: 439) even claimed, 'researchers have largely settled on Backhaus' designation'. However, when defining one unit as 'text within a (…) frame' there can be puzzling complications. Savela (2018: 33–34) discusses several of those problems and he mentions three-dimensional language objects, for example the LOVE sculptures analyzed by Jaworski (2015c), or the problem of counting with the same weight a small sticker and a huge billboard (see Huebner [2009] for some further considerations on the unit of analysis). Reershemius (2020) tried to address this problem of size by including a variable about the size of each sign measured in square meters (similar to the *Metropolenzeigen* project; Cindark & Ziegler, 2016). Savela further mentions non-angular carriers such as an advertising column or graffiti that is commonly placed on top of other carriers or inside another frame, which can make it difficult to decide each individual sign or frame (Figure 4.5).

Figure 4.5 LOVE sign: illustrating problems mentioned in Savela (2018)

In our early studies, we encountered the problem of repetition because a large number of the same language signs can be placed side by side or a shop may have its name or slogan repeated innumerous times on its storefront. Some shop windows have an endless number of products on display. Some items may be repeated once, other items a few times and others sometimes hundreds of times because repetition is rather common for advertisements and brand names. In counting each of those occurrences individually, just one or two establishments in the sample can skew the results in one direction. When confronted with this issue, we reflected on how to count signs and the decisions to make about the unit of analysis. Our intention was to count all visible signs, large and small, and in the end we decided to count a street sign or a separate poster as one unit, but also 'the larger whole of the establishment as the unit of analysis' (Cenoz & Gorter, 2006: 71). In the case of a shop or any business, all visible texts were taken together as one whole and each establishment became one unit of analysis. We were aware of taking some arbitrary decisions, but we reasoned that such texts are placed by the same owner and as such, they have to be considered a whole that belongs together. The important decision was to count a whole establishment as one unit and not as a collection of possibly many different units. Our more holistic definition has been adopted by several linguistic landscape researchers, among those Bogatto and Hélot (2010: 279), Lipovsky (2019a: 265) and Vandenbroucke (2015: 6).

Soukup (2020) devised a 'count-all procedure' of spatially definable frames and took this procedure to its logical consequence by including the smallest details. For instance, she counted the text on top of a screw used to fix a trash can to a traffic pole. One could ask if that text is in any meaningful way part of the linguistic landscape? Except, perhaps, for the technician who fixes the screw and needs to know the right type. On the other hand, we find the approach taken by Ben-Rafael and Ben-Rafael (2015, 2019: 25) who defined their unit of analysis as 'any linguistic combination of elements appearing together', but then they decided to exclude any items placed by official institutions and, for practical reasons, in their presentation of the results they considered only the name of commercial establishments and disregarded all surrounding text.

Obviously, there are advantages and disadvantages concerning each choice, and while it is important to clarify one's criteria, it is almost impossible to avoid some arbitrary decisions.

BOX 4.1 MOVING SIGNS

An issue closely related to the unit of analysis is whether signs are fixed or not. Backhaus (2007: 67) only considered signs fixed on a carrier and we also included only fixed signs in our sample in our early work (Cenoz & Gorter, 2006). Some signs are fixed for many years and can provide

a historical layer to the linguistic landscape, but most signs change over time and, in some cases, from one day to the next (e.g. special offers) or from one second to the next (e.g. on video screens). Obviously, the dynamic nature of the linguistic landscape can pose a challenge and already in 2006 the question was asked 'Are texts on moving objects such as buses or cars to be included?' (Gorter, 2006a: 3). Sebba (2010: 59) answered this question affirmatively when he stated: 'while fixed signage is undoubtedly of great interest… it needs to be seen and analysed as a subset… of all public texts'. He argued for the inclusion of mobile or 'non-fixed' signs, such as newspapers, bank notes and bus tickets. It seems that those objects can indeed have significance when they are part of the visible public space, but at the same time seem of little or no significance when they are in a wallet or a pocket. Sebba's advice was followed, for example, by Dunlevy (2012: 4) and Moriarty (2014b: 468; 2015: 203), who both decided to include non-stationary signs. Other studies have also included moving signs on buses, bicycles, T-shirts or discarded rubbish as part of linguistic landscapes (Figure 4.6). Examples can be found in Coupland (2012) who studied texts on T-shirts in Wales, Järlehed (2019) on T-shirts in Galicia and the Basque Country and Jaworski and Lou (2020) who looked into the 'words we wear' in Hong Kong, London and Shanghai. Pennycook (2019) analyzed the 'bikescapes' of shared bikes dispersed around the city of Sydney, and Kallen (2010) included trash as part of the linguistic landscape of Dublin. A special type of moving signs are tattoos that are fixed on the body, but obviously move through public spaces (Peck & Stroud, 2015).

The ever-changing texts included on digital screens of video displays, which today make up a substantial part of urban shopping streets, are still a little studied part of linguistic landscapes (Gorter, 2019a). The digital era poses some further challenges such as the ubiquitous presence of handheld mobile devices and the possibilities to superimpose digital images and texts through augmented reality (AR), a technique many people were first acquainted with through the popular Pokémon game available on mobile phones since 2016 (see Chapter 12).

In selecting the unit of analysis, one can also look at the linguistic landscape as a larger unit, a *gestalt*, as was already suggested by Ben-Rafael *et al.* (2006: 8). Such a wider and more holistic approach can be useful because a landscape can refer to 'what can be seen from a single viewpoint' (see the discussion on landscape in Chapter 1). It can thus be worthwhile to approach the unit of analysis as 'a landscape', as what can be seen in one single view, an idea we applied to our ideas about the relationship between translanguaging and linguistic landscapes (Gorter & Cenoz, 2015a; see Chapter 6).

Figure 4.6 Moving signs on trolleybus (Budapest)

The three conceptions of the unit of analysis – an identifiable frame, a whole establishment or a visible landscape – are somewhat complementary and all have been applied in quantitatively oriented studies. Researchers continue to struggle somewhat with the issue of the unit of analysis (e.g. Hepford, 2017; Neves, 2016), but the most important consideration should be the goals of each investigation and the related research questions.

4.5.2 Survey area or research site

A second unsettled issue is 'where' to study signs. Researchers usually go to a specific geographic area, which can include cyberspace (Ivkovic & Lotherington, 2009) or a combination of offline and online (see Section 4.3). Key questions related to the survey area are 'What are the boundaries of the relevant area?' and 'How do you choose?'. In other words, not only where you collect (photographs of) signs but also 'which ones and how many?'. Linguistic landscape researchers often try to collect a representative cross-section of one or more geographic areas, but the choice of a survey area can be challenging. What may seem like a straightforward matter is often a difficult process of drawing a clear-cut sample from a well-defined population of signs. If representativity is a consideration, then the sample should be representative of something: a street, a neighborhood, a community, a town or a city, a region or perhaps even a whole country; but a sample can also represent a social group, a genre or a special type of sign. Sometimes, a researcher is intrigued by the signs during a one-time visit to a place and another researcher may collect data in one place over a period of many years. Sometimes, a researcher collects a 'convenience sample' of a limited number of signs and another researcher may go to great lengths to explain the details of the procedures of a sample.

The four classic studies that we mentioned in Chapter 2 on the history of the field illustrate different ways to solve the problem of survey areas

and sampling. As we made clear, Backhaus (2007: 65–66) undertook one of the largest quantitative studies of a linguistic landscape ever in Tokyo.

For his sample, Backhaus selected the 29 stations of the Yamanote train line connecting the major centers of this metropolis and for each station he selected a stretch of a street between two consecutive traffic lights, of about 150 meters in length. In his final sample, Backhaus included only around 20% of the almost 12,000 signs that he had counted because he was not interested in the monolingual signs in Japanese only. His research goal was to analyze the bilingual and multilingual signs (Figure 4.7).

Following public transport axes as Backhaus did, is a solution to the survey area problem that other linguistic landscape researchers have also followed. In her early linguistic landscape study, Tulp (1978) went along the most prominent tram lines crossing Brussels to examine the distribution of Dutch and French. Another example is Lai (2013), who followed the Mass Transit Railway in Hong Kong to study the linguistic landscapes of four different neighborhoods. Likewise, Brown (2007) studied Belarusian and Russian signs in the metro stations of Minsk, the capital of Belorussia, and De los Reyes (2014) looked into Filipino and English on the signs in two railway stations in Manila, the capital of the Philippines. Recently, Tang (2020) copied Backhaus' (2007) sampling method in Singapore by going to 30 stations of the Circle Line of the Mass Rapid Transport system. The sample included photographs of the signs inside each station as well as the part of the street between two traffic lights outside each station. What we learn from all these studies is that the transport axes can be a way to access a whole city and thus determine the survey area. Huebner (2006, 2009) investigated central and suburban parts of Bangkok. He took samples from 15 neighborhoods, including the public transportation system of the Sky Train, although that is not a physical neighborhood *per se*.

Figure 4.7 Train station exit in Tokyo

According to Huebner, the data illustrate the range of linguistic diversity in a city of this size but are not meant to indicate the linguistic composition of the city as a whole. Therefore, he did not demarcate each of his areas precisely, but the whole city of Bangkok became his survey area.

For Ben-Rafael *et al*. (2006) it was important to select localities (cities and towns) that represented the ethno-cultural and national divisions in Israeli society; thus, the researchers sampled signs in four Jewish localities, three Israeli-Palestinian localities and one non-Israeli-Palestinian locality. Their second step was to sample those parts of the sites where major commercial activity takes place. They only sampled a limited number of all items in a specific site (30% of public and 70% of commercial sites). From this example, we see that there was not one specific demarcated survey area, but that the totality of the sites was intended to represent the diversity of Israeli society.

Our own first study took place in one street (Cenoz & Gorter, 2003) following the example of Rosenbaum *et al*. (1977), who studied signs in one street in Jerusalem. In our second study, which became a 'classic', we took one main shopping street of about 600 meters in length in Donostia-San Sebastián and a street of similar length in Leeuwarden-Ljouwert in Friesland (Cenoz & Gorter, 2006) (Figure 4.8).

The selection of one or more (shopping) streets as the survey area has become an obvious choice in several linguistic landscape studies. For example, Coluzzi (2009) followed this sampling method when he recorded the signs in two central streets of a similar length in Milan and Udine, two northern Italian cities. He deliberately excluded central shopping areas because he wanted to avoid the influence of the presence of tourists. Further, for his analysis, he only included multilingual signs or signs where the local language was present and the other signs were

Figure 4.8 Two streets in Donostia-San Sebastián and Leeuwarden-Ljouwert

counted as monolingual Italian or English. Therefore, his sample was not aimed at giving an overall representative impression of the two cities, but aimed at specific signs in specific areas. Likewise, Moriarty (2014b) focused on tourist areas. In order to determine the survey area, she used information on the routes most frequently walked by tourists in the tourist town of Dingle, Ireland. This gave her the information to decide on the streets to take pictures of the linguistic landscape.

In their huge quantitative study of cities along the Mediterranean coast in France and Italy, Blackwood and Tufi (2015) randomly selected a 50-meter stretch of one main street in 20 different sites and they photographed the signs in each area. However, after this experience Blackwood (2015: 41) remained convinced that the choice of survey area continues to be problematic. He argues that ‘it is challenging to the point of being unfeasible to survey an entire city or town’, although he hints at possible future technological changes that might make this possible. One technological advanced approach was applied by Hult (2014), who also took streets as survey areas. He selected the radial highways passing through different neighborhoods of San Antonio, Texas, and he captured the signs on video from a car travelling at about 65 mph (±105 km/h). Of course, this reminds us of Google Street View, an application that has potential for linguistic landscape research (see below for some further applications).

Streets were also of concern to Pietikäinen *et al.* (2011: 284), but in contrast to other researchers, they wanted to ‘rethink the “main street” starting point typical of much previous linguistic landscape research’. In small villages in the north of Norway, Sweden, Finland and Russia, they observed that the layout is rather different from cities. Thus, they selected not streets, but 20 sites that are central for language activities. The case of Laitinen (2014) is rather more extreme, because his survey area ‘the street’ was actually a series of roads that he cycled for 630 kilometers from Helsinki to Oulu in Finland; there he observed the use of English on signs. What we can take away from these studies is that (parts of) streets as the survey area can be useful as demarcation points, but ‘a street’ can also have rather different meanings.

The most elaborate design for selecting a survey area in an urban context probably comes from Soukup (2016, 2020) who we already mentioned for her count-all procedure. She starts out from the principles of variationist sociolinguistics, in which the distributional patterns of variants of expression across different social contexts are studied. She proposed to select areas based on ‘hypothesis-driven stratified sampling’ because she assumes that potential audiences have a direct influence on the language choice on signs. Soukup (2020) considers four variables to select her survey areas among 23 neighborhoods

(*Bezirke* or districts) in Vienna. Those variables are age, multilingualism (using citizenship as a proxy), tourism (number of visitors) and commerce (based on a register of businesses). This first step resulted in the selection of six neighborhoods and, after that, one street represented a neighborhood. In each street, starting from the mid-point, a stretch of 100 meters in both directions was selected. The result of the count-all inventory of signs is a database of 17,109 linguistic landscape items (Soukup, 2020: 58–68). Based on this fine-grained corpus, she was able to calculate an average density of 3.5 items per meter for all streets as well as the differences between commercial and residential streets (5.8 versus 1.3 items per meter). However, in the final analysis only parts of streets are supposed to represent a whole city, even if selected based on strict criteria.

BOX 4.2 NEIGHBORHOODS

As we saw, individual streets can be the starting point for an investigation, but in general, survey areas can be better thought of as larger research sites. In one of our follow-up studies of the linguistic landscape in Donostia-San Sebastián, we observed similarities and differences in the display of Basque in nine neighborhoods (Gorter *et al.*, 2012). More recently, we proposed that the neighborhood is probably the most appropriate level of analysis of the linguistic landscape. The reason is that there ‘the individual signs combine, alternate and mix to shape linguistic landscapes as a whole’ (Gorter & Cenoz, 2015a: 54). We argued that the neighborhood is a more suitable level of analysis, and thus survey area, than a single street or a whole city. The signage contributes to a sense of place, the configuration of the signs in a neighborhood as a whole gives it a certain identity and ‘the ambiance of a neighborhood can be experienced and seen as a unity, even if geographic, social or language borders are not clearly demarcated’ (Gorter & Cenoz, 2015a: 69). Linguistic landscapes determine differences in appearance and lead to different experiences of a city as a whole and in particular in each of its neighborhoods. Huebner (2006: 32) already hinted at the importance of a neighborhood when he observed in Bangkok ‘separate and identifiable neighborhoods, each with its own linguistic culture’. In addition, Shohamy (2015: 165), who examined the linguistic landscape of two neighborhoods in the city of Tel Aviv-Jaffa, emphasized that ‘“neighborhood identities” [are] making up a meaningful territorial space and special connection with its people’.

O’Connor and Zentz (2016) picked up on our idea of neighborhood in their analysis of mobility through a linguistic landscape lens by comparing the contexts of Texas (United States) and Java (Indonesia). They used it to take ‘synchronic snapshots’ which are

rooted in historical processes. Various other researchers have also used the neighborhood as their main level of analysis. Papen (2012) focused her linguistic landscape study of gentrification on the area in Berlin known as *Helmholtzkiez*, where *kiez* is a northern German word for neighborhood. She assumes that changes in political regimes, in economic conditions and in the social make-up of the residents are reflected in a neighborhood's linguistic landscape. Blommaert (2013) based his ethnographic fieldwork on his own neighborhood in Antwerp. He builds a strong case for linguistic landscaping as a superior and accurate diagnostic tool of transformations in a neighborhood as a survey area. Blommaert and Maly (2016) further elaborated their ethnographic study design in the Rabot neighborhood in Ghent. It is, by the way, one of the same immigrant neighborhoods where Collins and Slembrouck (2004) were already 'reading the shop windows'. By studying linguistic landscapes in this superdiverse neighborhood as their survey area, Blommaert and Maly (2016) got to know more about the different communities living together. Gaiser and Matras (2020) have reflected extensively on the usefulness of the concept of community in linguistic landscape studies and its relationship with neighborhoods as urban spaces. They do not consider the issue of survey area *per se*, but it is implied in the debate.

The level of neighborhood as survey area has also been applied by other authors. For example, using a geosemiotic approach, Kelleher and Milani (2015) analyzed the neighborhood of Bosman in Pretoria, South Africa, through the metaphor of the 'surface', the visible linguistic landscape, and the 'underneath', i.e. the histories and lived experiences that give meaning to the verbal and visual manifestations of the place. They conclude that 'the linguistic landscape is a rich, varied and provocative aspect of what it means to live, work, arrive at or pass through a place' (Kelleher & Milani, 2015: 139).

In our opinion, the definition of a neighborhood has to remain rather fluid and it can range from one or two streets to a large number, and a neighborhood in this sense can be rather different from the bureaucratic lines on a map marked by local government.

Other different survey areas, or research sites, have been chosen for linguistic landscape work, for example, shopping malls (Akindele, 2011; Trumper-Hecht, 2009), airports (Blackwood, 2019; Cunningham & King, 2021; Woo & Riget, 2022), markets (Choksi, 2015; Gorter *et al.*, 2021; Pennycook & Otsuji, 2015; Ramos Pellicia, 2021), museums (Kelly-Holmes & Pietikäinen, 2016; Xiao & Lee, 2019), monuments (Huebner & Phoocharoensil, 2017; Shohamy & Waksman, 2009), hospitals

(Sumarlam *et al.*, 2020a; Wroblewski, 2020) and restaurants (Abas, 2019; Xu & Wang, 2021). Unsurprisingly for academic researchers, universities and campuses (Adekunle *et al.*, 2019; Debras, 2019; Jocuns, 2019, 2021; Milani, 2013a) and various other educational institutions are popular survey areas (see Chapter 10). The demarcation of the survey area is quite clear in most of those cases and researchers spell out the boundaries of their research site in greater or lesser details.

An approach that almost does not require delineating a clear survey area, although it is implied, is the method called *Spot German* which was applied in Marten and Saagpakk (2016, 2017). In this case, all attention goes into finding traces of or 'spotting' only one language (and culture), i.e. German, in an environment where this language is not common, e.g. the islands of Malta (Heimrath, 2017) and Cyprus (Marten, 2017). This implies a detective-like approach where the smallest reference can count for evidence of the presence of a certain language (or culture) in a larger area.

BOX 4.3 CHINATOWNS AS NEIGHBORHOOD

Chinatowns are a special category of neighborhood that can be found in many large cities, among others, in Asia, Australia, Europe and North America. Those typical neighborhoods can usually be identified relatively easily because their signage stands out from other neighborhoods. In Chapter 6, we discuss the outcomes of various studies on Chinatowns.

Chinatowns are an example of relatively clear survey areas, although some of their physical and linguistic boundaries can be fluid and not fixed. For example, Amos (2016) questioned the boundaries of the Chinatown in Liverpool. He contrasted the area officially designed by the local government with the perceptions and cognitive maps drawn by his respondents, and also with his quantitative data obtained from signs. Bilingual street signs are an important marker of Chinatown and Chinese identity, even though the respondents saw the Imperial Arch as even more important. The officially placed bilingual Chinese–English street signs poorly demarcate the boundaries because in some streets those are the only signs with Chinese on them. In her study of Chinatown in Washington, DC, Lou (2016a) used a method of maps drawn by hand by residents, office workers and visitors to demonstrate how these linguistic, ethnic and economic groups perceive the neighborhood differently, even when they live and interact in the same urban space. In her study of a Chinatown in Paris, Lipovsky (2019a) claims that a neighborhood is an ideal setting because it is a smaller unit with a unique identity and its own *gestalt*. This makes it possible to capture

layers of societal multilingualism and reveal trends that have global, national and local relevance. This is also true for the linguistic landscapes of other neighborhoods, which is another reason why neighborhoods are an adequate sample area (Figure 4.9).

Figure 4.9 Chinatown arch (Vancouver)

In selecting their survey area, researchers often select more than one area in order to draw a comparison. We already saw that Ben-Rafael *et al.* (2006) selected different, but comparable locations in Israel; we selected two comparable streets (Cenoz & Gorter, 2006) to compare two cities (or regions). Similarly, Coluzzi (2009) compared cities, and later the countries of Italy and Brunei (Coluzzi, 2012). Several other studies have also applied a comparative perspective, although at different levels of social organization. This perspective can be used to highlight the contrast of linguistic landscapes in different neighborhoods (e.g. Comajoan and Long [2012] in Barcelona), between two capital cities of different countries (e.g. Muth, 2012 who compares Chişinău to Vilnius) or between the city where a group of students lives and the campus of the university where they study (Shohamy & Abu Ghazaleh-Mahajneh, 2012); many other comparisons are also possible.

Not all linguistic landscape researchers make clear how they have chosen their survey area. However, it is advisable to report the choices and the decisions for the survey areas, whether it is a street, a shopping mall, an airport, a school, a neighborhood or another unit. Part of the problem can be solved by giving the exact location or by including a map in those cases where it is useful. Another solution is to use Google Street View and insert the GPS coordinates of longitude and latitude or to use a short URL. In our article on translanguaging and linguistic landscapes (Gorter & Cenoz, 2015a), we inserted the link http://goo.gl/maps/Oppec to enable readers to go to the exact location that we are describing in front of the bookshop in Donostia-San Sebastián (in 2012). Google Street View, launched in 2007, is a tool that offers various ways to assist in conducting linguistic landscape studies (Figure 4.10).

As Puzey (2016: 398) pointed out: 'Google Street View enables users to scout the linguistic landscape of distant or less accessible areas viewing panoramic images along routes around the world'. Troyer (2016) included a nice application in his book review of Blackwood *et al.* (2016). The editors stated in their Preface that 'the reader is invited to journey across Europe, North America, Asia and Africa' (Blackwood *et al.*, 2016: xxiii), and Troyer took the hint literally, visiting all research sites in the book via Street View. He further recommends that all future linguistic landscape work includes the GPS coordinates from Google Maps. Troyer and Szabó (2017: 68) repeat this piece of advice and add the importance of including the dates of data collection, because then 'these tools can be used more effectively'. Of

Figure 4.10 Our location in Google Street View (screenshot) http://goo.gl/maps/Oppec

course, using images from Google Street View is only a possibility in those places where it is available and it excludes, for example, parts of Germany where the recording of streets was stopped for privacy reasons.

Various researchers have successfully exploited the possibilities of Google Street View and we can give a few examples. We already mentioned that the LinguaSnapp app includes a link to Street View. Similarly, Martinez (2015) used photos from Google Street View as one of her four data sources in her study of the use of English on shop signs in Colombia. Likewise, in Bishkek, the capital of Kyrgyzstan, McDermott (2019) collected her photographic data using a random procedure to sample points on Google maps. Notably, Jódar-Sánchez (2021) used Street View to observe the linguistic landscape in Barcelona, but he concluded that there was no advantage to Street View over physically taking the photos. It is possible to go back in time with Street View because Google documents the streets in major cities once a year and less populated areas about once every three years. This possibility to go to the signs of one street in the years 2009, 2013 and 2014 was reported by Maly (2016) in Ostend in Belgium as part of ethnographic linguistic landscape analysis (ELLA) of a superdiverse neighborhood. Likewise, in their study of restaurants in suburban Sydney, Xu and Wang (2021) utilized Street View archives to compare the signs from 2009 and 2019. In her study of the Mission district of San Francisco, Lyons (2020) first collected a sample of photographs of signs (n = 1,032) which she revisited over one year later through Google Street View to compare the data, observe whether a business had closed and to assign latitude and longitude coordinates to each sign. Kim (2017) uses a rather different approach in her class for pre-service English teachers in Korea. She applied Google Street View in an introductory course to linguistic landscapes to familiarize her students with street signage on a virtual tour of New York City. In a follow-up, Kim and Chesnut (2020) combined the virtual tour with Google maps. The students were asked, among others, to identify certain categories of signs, for example, 'pharmacies in New York City' which were then displayed on a map (Kim & Chesnut, 2020: 81). However, there are some limitations to Street View and our own master's students noticed for instance that it is impossible to view the details of stickers glued to lamp posts or other pieces of urban furniture (see the assignment explained in Chapter 10).

4.6 Concluding Remarks

In this chapter, our emphasis has been on how the research methods have been applied, the research questions asked, the manner of reporting the results and some of the main conclusions. We have presented a selection of the ways in which quantitative, qualitative and mixed methods have been applied in various studies. Malinowski and Tufi (2020: 32) observe that 'concerns over method have always, and continue to be, central to the field of LL'.

Different interpretations exist of the methodological direction the field seems to be taking. As we mentioned in Chapter 2, among others, Moriarty (2014a) and Zabrodskaja and Milani (2014) have suggested that the field has taken a 'qualitative turn' because studies were supposed to have moved away from 'documenting signs'. However, this overlooks the early qualitative work (e.g. Calvet, 1990; Spolsky & Cooper, 1991). It further seems to neglect qualitative aspects of earlier quantitative work, which usually dealt with more than distributional issues. At the same time, the suggestion of 'turn' ignores the continuous and never-ending stream of research publications predominantly based on quantitative methods. Just a few examples of studies that appeared before 2014, the year when Moriarty and Zabrodskaja and Milani published their claim, can suffice (among others: Blackwood, 2011; Coluzzi, 2012; Grbavac, 2013; Kotze & Du Plessis, 2010; Lado, 2011; Macalister, 2010, 2012). Innumerous predominantly quantitative studies have continued to appear (e.g. Amos, 2016; Neves, 2016; Soukup, 2016; Zhang *et al.*, 2020).

Quantitative, qualitative and mixed methods are permeating the field, which may seem to be competing, but approaches are complementary and all can give direction to a greater or lesser extent to future linguistic landscape research. Two recent proposals which we discussed above seem to express this contrast between quantitative and qualitative methods. On the one hand, there is the Variationist Linguistic Landscape Study (Soukup, 2020), and on the other hand, ethnographic linguistic landscape approach (Blommaert & Maly, 2016). Both proposals differ fundamentally in how to carry out a linguistic landscape study. It is, however, not clear if either approach will be adopted more generally by others and become an important tool in linguistic landscape studies. It is our firm belief that combining different methods is a productive way forward, by using, for example, photography, questionnaires or interviews, ethnographic observation and document analysis in one project.

In this chapter, we further discussed the contentious issues of the unit of analysis and the survey area. We evidently could not solve these issues or give a definitive answer and those issues will undoubtedly continue to be debated in future linguistic landscape publications. It is important that researchers are aware of such discussions and the limitations of different solutions. As a starting point, researchers should consider the observation made by Huebner (2016a: 5), who stated that 'the most appropriate methodologies, however, are determined by the research questions asked and the themes pursued'.

The field of linguistic landscape studies is sometimes thought of as in the early stages of methodological development. This can, of course, never be a valid reason for researchers not to follow accepted methodological practices, unless a researcher wants to break through established rules on purpose. Following methodological norms includes an emphasis on a rigorous approach to research. An example of such a

rigorous ethnographic approach is the study by Blommaert (2013) of his neighborhood in Antwerp. Transparent, controlled, rigorous, verifiable and replicable research seems desirable, not only in purely quantitative studies, but also as part of qualitative research (Tracy, 2010). It should be common practice that researchers provide sufficient details about their methodological procedures and make their results verifiable by others. In that way, they can also take the replicability of their study into account. Backhaus (2019: 165) has already warned that the ease of collecting linguistic landscape data (by taking photographs of signs) leads to 'a larger number of relatively "plain" papers on the topic', as has happened in Japan and elsewhere. By following the advice in handbooks of research methods, and learning from the good practices of other researchers, the quality of quantitative, qualitative and mixed method studies can surely be further enhanced.

5 Photography and Other Distinctive Research Methods

5.1 Introduction

Using a digital camera to take photographs of signs is probably the most distinctive data collection method in the field of linguistic landscape studies. Lou (2016b) and others have highlighted the use of photography as an important and indispensable tool for linguistic landscape research. This visual research method can be seen as a typical trait of linguistic landscape studies, and perhaps as a significant innovation in the study of language in society. Photography can be a powerful tool for examining society as well as providing a historical document of a location. The use of photography as a research method was facilitated by the widespread introduction of inexpensive digital cameras in the late 1990s and, a few years later, the inclusion of high-resolution cameras in mobile phones. Backhaus (2007: 55) compared the impact of the availability of digital cameras on data collection to the impact of portable tape recorders on collecting spoken data in sociolinguistics in the 1960s. In the opening sentence of his book on linguistic landscapes, Blommaert (2013: 5) wrote: 'These days, sociolinguists do not just walk around the world carrying field notebooks and sound recording equipment; they also carry digital photo cameras'. Using a digital camera for data collection made it cheap and easy to amass large collections of photographic data and this method has helped the development of the field. The use of photographs for research to understand human behavior has, of course, a much longer tradition in fields such as visual anthropology (Collier, 1967) and visual sociology. Becker (1974: 6) reflected at length on the relationship between sociology and photography and he suggested that researchers have to study images in detail, as photographers do, in order 'to learn to look at photographs more attentively than they ordinarily do'.

In this chapter, we use our experiences as researchers, authors and book editors to take a reflexive stand on the photography of signs. Three issues stand out related to this research method (Gorter, 2019a). First, the role of the photographer-researcher (Section 5.2); second, photographs as data (Section 5.3); and third, photographs included in academic

publications (Section 5.4). We discuss these three issues in turn. In this chapter, we further discuss five research methods that have been applied in other scientific fields, but that are innovative for linguistic landscape studies. These methods have obtained a distinctive dimension after their application to the study of public signage. First, we discuss different aspects of video recording (Section 5.5), then the method of walking interviews (Section 5.6), followed by the use of geographic maps (Section 5.7), automatic text extraction (Section 5.8) and finally, the potential use of eye tracking to investigate how people perceive linguistic landscapes (Section 5.9). Thus far, these five methods have been used in only a handful of studies, but they could potentially become as characteristic for the field as taking photographs. Some remarks in Section 5.10 conclude the chapter.

5.2 The Photographer-Researcher

The roles of researcher and photographer are combined in almost all studies, and only exceptionally is an assistant or the help of a student mentioned. We do not know of any study where a professional photographer was hired to assist in the data collection, probably because it was not deemed necessary. Puzey (2016: 398) argued that researchers 'now carry the key piece of equipment in their pockets' and capturing data is 'a relatively straightforward matter'. In Gorter (2012a), it was claimed that taking photos of the linguistic landscape hardly poses special difficulties. However, Nash (2016: 383) disagreed with this point of view and mentioned that technical skills and practical intelligence are needed for a linguistic landscape fieldworker. Lu *et al.* (2022: 20) wondered 'Are we sufficiently skilled as photographers?', after facing some unexpected challenges about safety, the weather, out-of-focus signs and different ways of framing signs among team members. Obviously, we agree that a researcher-photographer needs basic qualifications. But this is not to say that researchers have to know about the technicalities of aperture, diaphragm or F-stops and, contrary to what professionals suggest, we think it is fine to use the automatic position on a camera and use faster autofocus to get better quality pictures.

When taking a picture of a sign, the photographer-researcher has to decide each time whether to take a close-up only or to include the wider context. The latter runs the risk that the distance becomes too large because the picture was taken too far off. The composition of an image has to be carefully weighted. This includes not only the position and relationship of shapes, forms and lines, but also the visual balance of symmetry, space and negative space and the effect of extraneous elements on an image. It does not seem that much training is required to take a picture of a fixed sign, which is the predominant type of photograph in the linguistic landscape genre. It may be more challenging to photograph

Figure 5.1 Cropping sign in three ways (Auckland)

moving signs on vehicles, during a protest march or people's tattoos or 'skinscapes'. The latter may involve considerations of the permission of the people involved. In general, it should be relatively easy to follow a few well-known rules of thumb, such as 'take your time', 'frame the sign well', 'focus', 'pay attention to the light' and 'check the picture immediately afterwards'. The most important thing is to take wherever possible a clear picture of each sign which includes legible language details and also sufficient information about the context. Following this advice could avoid many of the issues with published photographs that we mention later (Figure 5.1).

The use of a camera in many public spaces has become common and will not attract much attention of others. Radwańska-Williams (2018: 147) went as far as to state, 'I think there may not be another city in the world where a person taking hundreds of pictures would be so unnoticed as in Macao'. It will depend on the location and the behavior of the photographer-researcher because aiming a camera at signs may sometimes feel peculiar, depending on the circumstances. In most countries there is a legal right to take photographs in public spaces. However, sometimes a shop owner may try to dispute this right, as happened in Cardiff when the owner of a jewelry shop came outside asking why a picture of his shop had been taken (Figure 5.2).

Something similar happened in Ghent during a photographic survey of the Wondelgemstraat in the Rabot neighborhood (the same street as in Blommaert and Maly [2016]; see Section 4.3). A resident inquired anxiously about photographs being taken of the storefronts because he thought he might be dealing with an employee from a real estate agency. In both cases, the person could be reassured that it was only an academic

Figure 5.2 Jewelry shop in Cardiff

interest in signage. Contrasting experiences are mentioned, among others, by Lu *et al*. (2021) who mentioned access and safety. They reported various physically and emotionally challenging experiences by doctoral students during fieldwork in different neighborhoods in Columbus, Ohio. Our own master's students have never reported problems during their linguistic landscape assignments in Donostia-San Sebastián (see Chapter 10 for a description of the assignment).

The researchers' perspective is important but another issue to consider is how photographs contextualize what is in them. Kallen *et al*. (2015) presented a number of effects of how signs can be viewed by framing the photographs differently. Focusing exclusively on a sign of a local shop or taking a wider perspective including a global brand name of the shop next door can make a difference. Providing the context of one individual sign can make clear how the sign interacts with other signs, and it can demonstrate languages in conflict or how there are different discourses in one space. Kallen *et al*. (2015) further showed the effect that large size lettering on one sign can have compared to other signs with smaller letters right next to it. An ensemble of signs shown together may also tell a different story than a single sign. The ways of presentation have an effect on the scale, function and perception and on the different historical layers that can be demonstrated or the display of different discourses. They conclude that 'there may be many ways to capture "what is going on" in a given space' (Kallen *et al*., 2015: slide 21) (Figure 5.3).

Along similar lines, Troyer and Szabó (2017) discussed the issue of photographic representation, which is an important dimension of linguistic landscape studies. They point out that one cannot escape the materiality of photographs of the linguistic landscape, an aspect that is almost always visible. They reflect on how researchers can represent the visual in

Figure 5.3 Effect of context: close-up and further away

their work. The camera is a tool (Flusser, 1983) and this tool influences and shapes how linguistic landscapes are conceptualized. Linguistic landscape studies rely mostly on photographs of signs, which suggests the perspective of an idealized, neutral participant. To some extent, it is inescapable and inherent in the method of using images or other visual materials.

The issue of perspective was illustrated well in the study of Straszer and Stroik (2022), who reported that two researchers independently took photographs of signs and artifacts in a Sámi preschool. When the researchers merged the two sets of photos for the analysis, they largely overlapped, but there were also photos that only one of them had taken. Obviously, the two researchers with different backgrounds had not observed exactly the same features of the linguistic landscape of the school. In other words, two researchers can capture a linguistic landscape differently and thus come to different interpretations and conclusions.

Researcher-photographers have to pay careful attention to their images as data and as part of their publications. It is important that they pay sufficient attention to capturing their images, even if photographing public signs with a modern mobile phone can be relatively straightforward. If researchers want to push the field forward, development is not only about theories, themes, locations or methods, but also about improvement in the technical standards of one of its basic materials. Researchers are, of course, not always in control of the photographs they include in their study. For example, studies make use of images posted on social media sites such as Instagram posts (Blackwood, 2019), signs

included in textbooks (Chapelle, 2020) or the photographs uploaded in the Lingscape app (Purschke, 2017a).

5.3 Photographs as Data

Photographs collected during fieldwork are primarily used as data for interpretation and analysis. Later, a selection of the photographs may become functional to demonstrate or illustrate a point a researcher wants to make. Photographs as data are in many ways similar to other data types, such as questionnaire answers, transcripts of interviews or observation notes, and it is common practice to report sufficient details about the applied procedures. Other issues of photographic data may be more specific, related to the analysis of 'language' on signs. It is common for authors to report the exact number of signs they have photographed and/or the number of pictures they have taken (which, of course, does not have to be the same). They further report on coding procedures and/or how they have interpreted the images. Usually, this is in regard to language-related features in terms of text, multilingualism, meaning, material, color, placement, size, other multimodal aspects, etc. (see coding schemes in Chapter 4).

It is typical that authors select a small set of images to discuss their multilingual or multimodal aspects, to illustrate a trend or to emphasize a particular point.

Photos as data are part of a recognizable linguistic landscape genre, which includes as the most frequent types, photographs of shop fronts, street and road signs and posters. It is rather different from other genres such as sports, travel or news photography. It is also not related to landscape photography because in that genre the object is most commonly a natural landscape (e.g. a sunset). Perhaps the genre comes closest to street photography because of its often social documentary nature, but then it is missing the artistic dimension of street photographs. Photographs of signs are usually not interesting for their aesthetic qualities, but for other reasons. The authors make them more interesting through their analysis, interpretation and discussion, for the most part related to language or symbols. Linguistic landscape photos are a form of technical photography, similar to other technical applications used in architecture or biology. Photography can provide the most important window into the linguistic landscape of a specific location because images are a powerful tool in telling the story of a research site. Obviously, there are differences between a 'snapshot' and a 'professional photograph', and in order to be used as data the photos need to be of minimal quality. If they are not, they become a type of missing data, and those items have to be discarded, unless a researcher aims for a count-all procedure (Soukup, 2016) and has to retake the same sign.

Researchers usually take large numbers of photographs, often hundreds, thousands or even tens of thousands, and we are obviously not suggesting that it would be a good idea to publish all of them. Blackwood and Tufi (2015: 19) observed that 'any book on the LL could fill all its pages with

images to discuss, evaluate, and dissect'. It seems they could only include a small fraction of all images collected in their book and they often resorted to a description of a sign without being able to show it. In any case, publishing all photographs would be like publishing the raw data collected through a survey or during ethnographic fieldwork. A selection process has to take place in which the researcher makes a choice within the limits set by the editor or publisher of the book or journal. This can imply that an author is told, for example, to select a maximum of five pictures for inclusion in the chapter or article. Another solution can be to publish the selected photos online.

5.4 Photographs in Publications

As stated, academic publications on linguistic landscape research commonly include a small set of photographs as figures. Images can be powerful to support or illustrate an author's line of reasoning. Most published images have some form of signage on them. It is characteristic to have one word, a few words, typically less than 10 words and, exceptionally, a long text. Many photographs include parts of buildings, most often shop fronts, but also restaurants, bars and offices. It is quite common to see a street or at least part of a street, but relatively few pictures have people in them. The latter may be related to ethical issues of including people in published photographs.

Over the years, we have been looking carefully at many photographs in published linguistic landscape work and we see two potentially problematic issues (Figure 5.4). First, the quality of photographs of signs, and

Figure 5.4 Twice the same sign: an obvious defect

second, how the pictures are oriented toward the audience, the readers. Too often, published images of signs are blurred, are missing some words or have only half of the words. Those pictures appear like a type of amateur snapshot photography. Other issues can be showing too much of the surroundings of a sign and its wider context, or the opposite, not showing anything at all when it is relevant. Judging the technical quality of an image can, of course, be rather subjective, but for us it relates in particular to avoiding rather obvious defects such as blur and low readability.

It often seems possible to improve the quality of published images, for example by retaking the photograph, reframing or cropping the image. If retaking or cropping is not an easy option, the solution can sometimes be to transcribe illegible text. We did this in Gorter and Cenoz (2015a) by providing a transcription of the texts in four languages on a shop window.

The second issue can be that a sign is printed too small and/or becomes illegible. It is rather annoying for a reader when the author mentions in the text, 'in the picture we see an example of', but then in the accompanying photograph it is impossible to determine what the sign says. The legibility of a sign used for illustration in a publication is thus important. It is not only readability, but *thought has to be given* to the *center of interest* or the most fascinating point. Photographs have to be framed correctly under the right angle. For example, it is not unusual that in a published sign of a shop window a reflection can be seen of the photographer-researcher (Figure 5.5).

Questions can be raised about the author's intention to publish a specific photo, or about the message conveyed by a figure, or adding meaning to the analysis. It is important which figures an author selects,

Figure 5.5 Reflection of the photographer

but of equal importance is how readers interpret the text and the figures. As is well known, texts can be read in different ways and, even more so, not all viewers see images in the same way, thus authors may want to give some consideration to the manner in which readers may construct their interpretations. The issue is how a reader looks at a specific image in the publication and the most likely interpretation given to an image. Nevertheless, in the end, as the saying goes, all may be in the eye of the beholder.

The software is increasingly capable of making corrections afterward but enhancements, of course, have to be treated carefully because they can diminish the integrity of the data. Editing photographs brings up issues of what is permissible: some cropping or color adjustment may be acceptable or even recommended, but photoshopping to create a better (or even new) sign is not permissible. The final image should represent the data in an accurate manner. The journal Nature (2021) advises that scientific reports include 'an "equipment and settings" section'; perhaps that is a good suggestion for certain linguistic landscape publications as well.

Another important consideration is how to include a small number of figures in relation to composing the text. Of course, the relationship between the text and a figure is relevant. We distinguish five functions of photographs in publications, which can be seen as a continuum: (1) stands on its own, because the picture itself tells a story; (2) functional, because the figure is a valuable contribution that adds something extra to the line of argument (can be high or low functionality); (3) illustration of a point, to clarify or make more attractive; (4) decoration used to beautify the text because it is a study on linguistic landscapes and it is supposed to have pictures; and (5) no relation at all where it would probably be better if the photographs had been left out. Of course, linguistic landscape publications that have only text and no pictures are totally acceptable.

After analyzing a number of books and special issues of linguistic landscape studies (Gorter, 2016a), and categorizing the figures according to the five criteria above, it was observed that pictures are often 'functional' and the figures add something unique or interesting to the text. Only on a few occasions was it observed that a photo can stand on its own to tell a story. Various photos in publications seem to fall into the category of, at most, an illustration or sometimes just decoration, and it also happens a few times that figures seem to have no relation to the text.

The instructions and rules of publishers can play an important role. Publishers can impose limitations in different ways, and sometimes it seems like a barrier that an author has to overcome. To begin with there are constraints on the number of photos that can be included in a publication and the authors have to carefully select the most relevant among their many photographs. Sometimes, a photograph cannot be printed

adequately due to low resolution, which is a criterion publishers usually emphasize.

The size of each picture is another issue. More than half a page is very seldom, more common is about a third of a page and in other cases it is even less, to the point where sometimes the pictures are (too) small. The maximum size of a photograph or the obligatory placement of figures on the top or the bottom of a page can present additional limitations. The placement can influence the relationship between the text and the figure.

Reproduction in black and white versus the use of color is another issue to consider. In many cases, color is important for linguistic landscape photography. It is not always clear if authors have considered the effect black-and-white reproduction has on the pictures included in their publication. It has even happened that an author refers to a specific color ('the green part', 'the red is important') and it is not present. A challenge for authors can be that the technology turns them into graphic designers as well, when in fact they want to concentrate on the content of their publication. Thus far, most published articles and (edited) books contain only black-and-white photographs. For reproduction in journal articles, it seems easier to have color photography, but often only in the digital online versions.

It is remarkable that authors generally put a great amount of work and time into composing and redacting their text, including a complete list of references according to complex standards, but then many authors seem less concerned about the quality of the pictures they include as part of their work. Too often, it looks as if authors are not concerned about their images and that relatively little effort has gone into presenting good quality photographs. The inclusion of photographs of signs, at least in certain cases, seems more of an afterthought than a key part of the study. They deserve more careful attention because images are often the most important data (Gorter, 2019a). Researcher-photographers, as well as publishers, have to be aware that their decisions on pictures influence the perception of their linguistic landscape study. After reading many linguistic landscape publications, and looking at images, we can observe that there is room for further improvement. We conclude that authors should give more consideration to the technical quality of the photographs in their publications. We would like to recommend that linguistic landscape researchers take their images more seriously (Gorter, 2019a). The relationship between the text and the photograph is complex, and Flusser (1983) already put forward the interesting distinction that the text is one-dimensional, similar to a line, but that a photograph is two-dimensional, similar to a surface. Images have the power to tell the story, or at least part of it. A relevant aspect of images in a publication is the ability to generate knowledge and have academic impact. Researchers all have the same aim of offering a glimpse of the languages in public spaces and making this readable or decipherable.

We encourage researchers to make sure that the image shows something interesting and distinctly recognizable. It is important to consider the conditions under which the images are produced and the effect images can have on readers. Researchers should reflect on their own way of looking (Rose, 2016). Photographs should mainly be used if they contribute in a substantive way to the point being made. It is important to consider what photographic data are and the way those are presented in publications. After all, as the well-worn saying goes 'a picture is worth a thousand words'.

5.5 Video Recording

Instead of taking still photographs, a researcher can decide to record video of signage as a data collection method. Few researchers thus far have applied the research method of video recordings in their studies. Troyer and Szabó (2017) have undertaken an effort to present a framework for the use of video methods in linguistic landscape research, drawing on work in visual anthropology and cultural geography. They assume that digital video today is as easy to apply as digital photos were 10 years earlier, although we have our doubts about that assumption. They see as an advantage that video can capture the fluidity of the experiences of linguistic landscapes. At the same time, they warn about the many choices researchers have to consider when working with video and the complexities related to analyzing and reporting. The authors point out various applications of video recording. First of all, video can be a tool for collecting the research data. Second, video allows for recording the sequence of signs in a linguistic landscape. Third, video recording, for example, walks makes it possible to study in real time the ways in which people navigate linguistic landscapes. Not only can the researcher produce recordings, but it is also possible to use videos from online sources such as YouTube, Vimeo, TikTok or other social media. Finally, video can be part of publishing the results of a linguistic landscape study or presenting to a larger audience.

Based on Knoblauch *et al.* (2012), Troyer and Szabó (2017) present a framework of two basic dimensions of video recording as a research method. On the one hand, the degree of manipulation of the video record, from the least to the most heavily edited and, on the other hand, the situation being recorded, from natural or unscripted to artificial or scripted. In this framework, different types of uses of video can be placed along the two axes. For example, a walking tour that is guided by the researcher can be edited and scripted, whereas a recording of a video as a panorama with a wide angle can be unscripted. They distinguish two additional dimensions, which are quantitative or qualitative data analysis and the purpose of the video, i.e. internal use for the researcher versus external use for a wider audience. They conceive of video as a

technologically mediated representation that is subjective and not an objective window through which to look at signage. In this sense, video is, of course, similar to photography. The idea implies that what the video represents depends on several factors, such as the researchers, the participants, the context, the research questions and the disciplinary approach. The authors applied the video recording method to a case study of the linguistic landscape of a shopping plaza that had been studied before with still photography (Troyer *et al.*, 2015) and they found, among others, that the drive-by video showed rather different aesthetics between the storefronts of Latino and other shops. This created the possibility of adding interpretations in terms of commodification, authenticity and functional choices. The authors made a short, 75-second edited video of their recordings, which is available online, and in their published article they included four still frames of the video. For them, digital video could be the next technological stage of linguistic landscape studies. Troyer and Szabó (2017) argue that in certain circumstances video recording is better as a data collection tool than still photography. One of their examples is the study by Hult (2014), already mentioned in Section 4.5.2, in which Hult used video recording to capture the linguistic landscape on billboards on the side of a highway while driving in a car. It was impossible to do the same with still photography, and in this way he could extract information on over 600 signs in both directions on six highways. Lou (2016b) also used video as a research method and she demonstrated how useful it was to study the linguistic landscape of Hong Kong while riding on public transportation (Figure 5.6). In both cases, video was deemed superior to photographs as a medium.

Troyer and Szabó (2017) divide video recording data collection techniques into participatory and non-participatory. In the first type, the participants play an active role in the creation of the video and in the

Figure 5.6 Double-decker bus in Hong Kong (similar to the type used by Lou)

second their role is passive. The studies by Hult and Lou are examples of non-participatory techniques. Another example of non-participatory video recording was used by Clemente *et al.* (2013). For them, it was a complementary source, next to still photography, to facilitate capturing texts on moving objects such as buses and digital screens. Harris *et al.* (2022) video recorded their schoolscape data in a Māori early childhood center twice; first, at the height of an adult and, second, at the height of a child. Their method of video recording was able to demonstrate the differences in perspective between the adult caretakers and the children. The same difference in perception evidently applies also to first-time visitors versus regular passersby or between people with different socio-economic backgrounds or other relevant demographic characteristics. An important advantage of video recording as used by Harris *et al.* (2022) is that it allows the sequence of signs following a specific route along the walls of an educational center to be analyzed from two perspectives. This study was a case of non-participatory video recording, although it took the perspective of the participants in the environment into consideration. The researchers showed the potential advantages of video recording as an innovation for schoolscape work (see Chapter 10). Lee and Choi (2020) are an example of participatory video recording; they used digital storytelling through videos as a significant part of a linguistic landscape project, which was included in Korean language classes at two universities in Kansas. The students shared their videos of the use of Korean as a point of interest (POI) on a Google map of the area.

We can point to examples of participatory video recording. Poveda (2012) presented a study of the schoolscape of a secondary school in Madrid, where he analyzed and compared some videos produced by students and by researchers during workshops organized by the research team. In the publication, Poveda includes a number of video captures to illustrate his findings about awareness raising, multilingualism and multiculturalism.

Another example of participatory video recording but technologically more advanced, comes from De Wilde *et al.* (2022) who had three master's students wear digital video glasses during a linguistic landscape task. Wearing these glasses provides for a first-person perspective which was further intensified by asking the students to verbalize their thoughts and opinions during the recordings. This is a high-tech method that will probably be applied in future linguistic landscape studies when these glasses become more widely available. This is related to using eye tracking technology which we will discuss below. These types of video analysis are comparable to uses in visual anthropology, visual sociology or other social sciences (Pink, 2021).

A further issue related to the use of video is the digitalization of public space. Today, continuously changing digital video screens are a significant part of contemporary linguistic landscapes (Gorter, 2019a).

Outdoor screens for advertising and for information provision have spread in urban environments in just a few years. On these outdoor screens, an unending stream of 'language' fragments is displayed (Cashmore *et al.*, 2018). The video screens positioned in a fixed place are related to the smartphones that numerous people hold in their hand while walking in the street (see Figure 2.7 in Chapter 2).

Those small screens also deliver a never-ending stream of messages, sounds, photos, videos and advertisements. The different types of digital screens are a challenge for linguistic landscape researchers waiting to be investigated (see Chapter 12).

5.6 Walking Interviews

Researchers are usually on their own collecting data while walking in their survey area. However, an interesting variation is a researcher who interviews people about public signs during a walking tour. As we saw in Section 5.5, sometimes walking interviews are combined with video recordings.

The method has been applied by various researchers, also in other social sciences (Evans & Jones, 2011). We present a series of examples of how the method was applied in linguistic landscape studies. For instance, Garvin (2010) conducted so-called 'postmodern walking tour interviews' as part of her study of multilingualism and multiculturalism in Memphis, Tennessee. First, she selected and photographed a number of sites, and then she purposefully selected 10 participants: a diverse group of long-standing residents and migrants. She briefly interviewed each participant and she went on individual walking tours along pre-selected streets to obtain their responses to specific signs. She asked, among others, questions on how they felt when they saw signs in languages other than English, if they noticed other languages or what the languages on the signs said about the people in the area. During a follow-up meeting, each participant was given an opportunity to react to the interview transcripts and add to their statements about attitudes, emotions, identity and perceptions of the signage. A similar method called 'narrated walking' was applied by Stroud and Jegels (2014) in a study in the township of Manenberg in Cape Town, South Africa. As researchers, they explored the complex dynamics surrounding place making, how signage is important for organizing a place and how place determines the reading of signs. The authors discuss different aspects of walking as an activity such as loitering, strolling, discursive walking and urban roaming. They employ the approach of the material ethnography of language (see Box 6.2). The interviewers asked the informants to guide them around the neighborhood and during the walk asked questions about signage or graffiti. This led to various narratives on experiencing the neighborhood and different ways of reading the signage. Stroud and Jegels (2014)

argue that the narratives provide insights into dimensions of mobility, embodiment, multimodality, spatial practices and locality of linguistic landscapes, which makes them different from studies with only a distant researcher's gaze of the meaning or the localization of signs. Another interesting example comes from Lou (2017), who reports on walks with participants through three markets in Hong Kong. She combined the walks with pre- and post-walk interviews, participant observation, field notes and video recordings. Some participants were asked to sketch maps of Hong Kong and while they were drawing, to talk about the places. In Section 4.5.2, we briefly mentioned this technique of drawing maps in Lou's (2016a) study of Chinatown, DC (see also Section 5.7 for more details). Afterwards, the researcher photographed the places that the participants had mentioned during the interviews in an attempt to look at the linguistic landscapes from their perspective. In a similar vein, Matras *et al.* (2018), who called it a 'walk-about', used the method to collect data about Yiddish signage in the Orthodox Jewish neighborhood of Manchester. During several fieldwork trips to the same locations, they used the LinguaSnapp app (see Section 4.2.3) for capturing and annotating the signs. During two of the trips, a member of the local Haredi community accompanied the researchers and provided them with additional insights and further information about the signs. In Zambia, walking and talking with local people were important for Banda and Jimaima (2017) in order to learn more about the statuses of languages and their relation with the encountered semiotic materials. Similarly, Baudinette (2018) used walking as a method in the gay district of Tokyo. He went on a 'strolling interview' in small groups. He would ask open questions to make his informants reflect on the symbolic functions of English and Japanese as indexes of certain gay identities and how the signage impacted their identity formation. Jocuns (2019) presented another example of the walking tour method. In his study of the campus of a university in Thailand, he interviewed 15 students focusing on three different signs. He asked questions on the meaning of each sign and why it appears in that particular location. In a follow-up at a different campus, Jocuns (2021) added a map of the walking route of approximately one mile which took around 30 minutes. That published map is a useful illustration of the method. A further example with a slightly different angle comes from Waksman and Shohamy (2020). They went on a walking tour through the city of Tel Aviv-Jaffa with two different tourist guides. Their data included the discourse during the tours, interviews with the tour guides, as well as an analysis of the texts of tourist guidebooks, brochures and websites. They focused on ideological differences between the guides who differently interpret and explain the same signs to tourists. An interesting observation is the use of 'pointing' by the guide as a tool not only for directing the gaze of the tourists, but also for diverting their perception away from other signs.

An interesting variant of the walking interviews was carried out by Szabó (2015) who explored schoolscapes in Hungary. When visiting a school, he walked through the buildings with an informant, for example a teacher, who acted as a tour guide and who then explained the signs and other artifacts. He called it the 'tourist guide technique' and he was able to compare the interpretations of the signs in the schoolscapes of informants in different schools. In a follow-up publication, Szabó and Troyer (2017) discussed various methodological issues of the same study. They explain in detail the use of a combination of walking, interviewing, taking photographs and recording videos with informants, among those teachers, parents and pupils. They consider it important to reflect more on the role of the researcher during fieldwork and how this has an effect on the data and the analysis. They see walking interviews as an ideal strategy because the informant guides the researcher through a specific location. By using a third person to video-record the interactions during the walking tour, the analysis could lead to a better understanding of the ways in which the researcher and the participants collaborated and how the borders between the observed and the observer became fluid. Pink (2007) reflects extensively on the method of 'walking with video' and the ways in which it can produce an embodied understanding of another's experience at a certain time and place, depending on the way the collaboration between researchers and participants is arranged.

Some further methodological aspects of a walking tour are discussed by Michalovich *et al.* (2021). In Jaffa (Israel), a diverse group of students and their teacher decided to visit shops and talk to the owners and passers-by about the use of Arabic on signs. Their data comprised interviews, field notes, photos and audio and video recordings. The aim was to develop a general framework of the walking tour. It had five characteristics: (a) the research group, consisting of the students, residents and local guides; (b) transforming the linguistic landscape through interactions among the participants; (c) a flexible research agenda, leading to unexpected discoveries (serendipity); (d) being present in the moment for direct reflection (immediacy); and (e) planned and spontaneous interactions, leading to the expression of emotions.

The research method of walking interviews has been given different labels: 'postmodern walking tour interviews', 'narrated walking', 'walk-about', 'strolling interview', 'tourist guide technique' or 'walking with video', but they all refer to a similar activity in which other people take part in the collection of data on linguistic landscapes. Our general conclusion is that involving residents, teachers, parents, visitors and passersby in a purposeful way can be productive in obtaining impressions, explanations, reactions and attitudes to signage. During walking interviews, the researcher can observe how the participants interact with the environment and what their relationships are to certain places. Kinney (2017: 4) observed that 'talking becomes easier when walking',

especially compared to sedentary interviews. Kinney (2017) placed the method of walking interviews on a continuum ranging from researcher driven, where the researcher selects the locations, the route and the signs to be observed (as in Garvin, 2010), to participant driven, where the participant determines where to go and what to see (as in Waksman & Shohamy, 2020). We saw similar differences between other studies mentioned above.

5.7 Geographic Maps

Maps can be a useful tool for presenting information about a place in a visual manner. Locating the research site and supporting a fuller understanding of the specific local context are important functions. Maps can, for example, display the distribution of languages on signs in a research area. Somewhat crude maps were used in early studies of the linguistic landscape in Brussels by Tulp (1978: 287–288) and slightly more detailed ones were employed by Wenzel (1998: 24–27). Their maps supported the description of the differences in the distribution of Dutch and French in the city (for both studies, see Chapter 2).

Various linguistic landscape researchers have recognized the importance of including maps in their publications to show the location of the research site or to analyze their data. The use of a map to indicate the geographic location of the research area is not uncommon, nor is it widespread. For example, we included an overview map that pinpointed the locations all over Europe of the different case studies in the book on minority languages (Gorter *et al.*, 2012a: xii). Some of the contributors to the same book included a map of their research area (Comajoan Colomé & Long, 2012: 190; Marten, 2012: 20; Szabó-Gilinger *et al.*, 2012: 267; Van Mensel & Darquennes, 2012: 166).

Geolinguistic referencing as a technique can be applied to show the linguistic diversity inside a specific context. In Section 4.2.1, we mentioned the example of the work by Barni and Bagna (2009) who used an innovative software program called MapGeoLing, which was especially designed for the analysis of signs. The software made it possible to produce colorful geographic maps of the neighborhood of Esquilino in Rome which visualized the diversity of languages and the genres of signs. It was a way to provide 'an accurate description of the degree of multilingualism found in a given territory' (Barni & Bagna, 2009: 138). After mapping several Italian cities, Barni and Bagna (2015) argue that georeferencing facilitates the description of the dynamic nature of linguistic landscapes because it takes many variables into account.

Other researchers have used similar ways of displaying the spatial distribution of signs in the linguistic landscape, but it has not become widespread. For instance, quite sophisticated maps were used by Vandenbroucke (2019b), who examined three shopping streets in Brussels

using a mixed methods approach. She used geolinguistic maps of the sites, next to quantitative and qualitative analyses. Her research questions asked 'How does this massive multilingual diversity find reflection in Brussels' public spaces and how is it distributed geographically?' (Vandenbroucke, 2019b: 4). She used QGis (then still called QuantumGis; available at https://qgis.org), which is an open source geographic information system to analyze data and to create linguistic landscape maps that display the distribution of various languages. The maps of the streets clearly illustrate her conclusion that multilingualism in Brussels is mostly a combination of French, Dutch and English.

As we indicated in Section 4.2.1 on coding systems, Lyons (2020) included the longitude and latitude of each sign as a variable in her application of more advanced statistical methods. She presents detailed maps of the language distribution across individual signs for some streets in San Francisco (Lyons, 2020: 22–23). In another study of linguistic landscape and social media, in particular Instagram, Lyons (2017, 2019) has included detailed maps of topics and of the most frequent terms.

Buchstaller and Alvanides (2017, 2019) combined mapping and advanced statistical models. They adopted the variationist sociolinguistic approach of Soukup (2016) and added georeferenced maps as a visualization method in their study of the Marshall Islands (which we have already mentioned). They first present a general map of the Marshall Islands to show the location, and then a map of the population density of the Majuro Atoll, their survey area. Buchstaller and Alvanides (2017) added two further general maps of the area, one map reflecting daily activities such as residential, tourism or open spaces and another map with official land use. The distribution of English, bilingualism and Marshallese on signs is shown on three separate maps. The same three maps are presented again as density or heat maps, which is a display technique frequently used in geography. Buchstaller and Alvanides (2019: 209) explain that the exact positioning on the map is made possible by using GPS coordinates together with the timestamp recorded by the camera. However, from a pilot study they concluded that it is better to connect a professional GPS tracker to obtain higher accuracy, up to less than 10 centimeters. A similar, but different type of density map was used by Restrepo-Ramos (2020) in his analysis of the linguistic landscape of the island of San Andres in Colombia.

Maps can thus show differences in the density or clustering of languages on signage along a street, in a neighborhood or even in a whole city. The latter was the case for Ziegler *et al.* (2019: 269) who used a map to visualize multilingualism in the eight cities of the Ruhr area through differently sized circles each representing the distribution of the 10 most frequent languages. Their map is based on the corpus of their large quantitative study, *Metropolenzeigen*/Signs of the Metropolises (see Section 4.2.2).

An online interactive map is an important feature of the apps we discussed in Section 4.2.3: LinguaSnapp and Lingscape. Both projects include a map where each dot represents a photograph with a sign that has been uploaded by the app users. The explicit aim of the LinguaSnapp project is to develop a map of the multilingual landscape of Manchester, as well as other towns and cities. However, the map is only available online and not in the app itself. In contrast, the Lingscape app opens with an interactive map, in which clicking on the dots opens information about the language(s) on each sign and clicking again opens the photo itself. The Lingscape interface has a feature that informs the user about the number of photos on the map. The online interface provides the total number in the database, as well as the number in a given view and the average number of languages per sign. Moving the map or zooming in or out, automatically adjusts the numbers. The two websites are an informative way to represent the linguistic landscape on a map.

We have already mentioned the inclusion of maps in the work of Lou (2016a). In her monograph on the linguistic landscape of Chinatown in Washington, DC, she includes several maps that show the location of the neighborhood with its official boundaries and historical development according to various zoning and planning maps. Path-breaking for linguistic landscape studies is where she combines interviews with so-called 'participatory maps', a visual technique used in various social sciences to tap into local knowledge and experiences. The method involves asking participants from the neighborhood, such as the mayor of Chinatown or an elderly inhabitant, to draw a map of the neighborhood. A comparison of the four hand-drawn maps in the book demonstrates differences in the degree of involvement in the neighborhood.

As we mentioned in Chapter 4, Google Street View and Google maps offer good opportunities for linguistic landscape researchers.

5.8 Text Extraction and Corpus Analysis

An interesting technological possibility for linguistic landscape researchers is the automatic extraction of the text of a sign through dedicated software. Some years ago, it was mentioned how technology similar to automatic number plate recognition could be 'applied to most other signs that are visible in public spaces [and] the content analysis of signs could then be semi-automatized by connecting them to language databases' (Gorter, 2006b: 84). This was actually done by Gilles and Ziegler (2021) in an elaboration of their quantitative approach in the large-scale project *Metropolenzeigen*. They propose a method of automatically identifying and extracting texts from signs using Google Cloud Vision API and they argue that 'text identification software could be a good tool to strengthen linguistic approaches to the analysis of signs in

place' (Gilles & Ziegler, 2021: 2). They find a fairly high rate of recognition, even with handwritten signs. The corpus analysis shows the different word classes (over half are nouns) and the most frequent words per word class. It was also possible to look into differences between neighborhoods, the mean text length of signs (word and character counts) and N-grams (word sequences). The distribution of specific words over the survey area could be displayed on maps. The authors see various benefits for text extraction from large collections of data in this way. They suggest three new possible areas of interest: '(i) occurrence of punctuation marks, constructions, writing systems, genres; (ii) dominance of forms, colours, landmarks, faces; and (iii) comparison of linguistic structures and languages' (Gilles & Ziegler, 2021: 13). A different application of linguistic corpus analysis was developed by Troyer (2021). He compiled a corpus of 548 linguistic landscape publications, consisting of 383 journal articles (1997–2017) and 165 book chapters (2008–2018). The web interface allows searching for simple words and advanced corpus analysis. Both the extraction of texts from signs and the corpus of publications are useful tools for linguistic landscape researchers. Obviously, it remains to be seen how many researchers will really use such applications in their linguistic landscape studies. A similar reflection applies to the method of eye tracking described in the next section.

5.9 Eye Tracking

Perceiving and noticing are obviously important dimensions of the study of linguistic landscapes. It can be important to find out more about which signs people look at, for how long and what they read when they move through an urban environment. Eye movements are extremely important in helping us deal with the enormous quantities of information that come to us in our daily lives. One method to investigate and understand how people pay attention to and process information is through the use of an eye tracking device. Such a device allows one to almost see through the eyes of a person and to identify what exactly they look at, and for how long they look at different items in a visual display either in a laboratory setting or while navigating through an urban environment. Spatial and temporal traits can be estimated of elements that attract the interest of a viewer and which elements are assumed to be easier or more difficult to process.

The method of eye movement recording is well established in other fields (Holmqvist *et al.*, 2011; Roberts & Siyanova-Chanturia, 2013). As a research tool, eye tracking devices are more accessible than ever and their application is increasing among researchers from a range of disciplines. Recently, there has been a growing interest in measuring eye movements due to improvements in eye tracking technology, but so far it has only exceptionally been applied in linguistic landscape work.

Eye movement research has been successfully applied as a common research technique in numerous studies, among others, in psycholinguistics, cognitive psychology, advertising studies and other consumer research. In psycholinguistics, eye tracking research has discovered a great deal about how people move their eyes when reading. In marketing studies, it is especially important to find out what captures the attention of viewers in order to determine what increases sales (Wedel & Pieters, 2008).

Recently, the technique has been applied in studies of second language acquisition (SLA) and there are two important strands of eye movement research (Winke *et al.*, 2013). First, how words are stored and accessed in the mental lexicon of bilinguals, and second, how learners of a second language process ambiguous sentences or grammatical constraints in real time (Roberts & Siyanova-Chanturia, 2013). These studies are aimed at the cognitive processes of the bilingual mind, which is not our aim, but they provide insights into the mechanics behind the reading process. Winke *et al.* (2013) present an overview of commonly used eye tracking measures in studies on written language processing. These studies normally use a remote or stationary eye tracking set-up in a laboratory; wearable eye trackers are more common in consumer and driver safety research. A wearable eye tracking device is a way to take the research of how people perceive signage out of the laboratory into the real world to collect a large amount of data. Technological advancements make today's eye tracking systems easy for researchers to set up and they are transparent to a participant during use. The current generation of devices barely distracts the user who is wearing it. The technique can offer new ways to understand human behavior, in our case looking at signage in urban environments. A wearable eye tracking tool can help to find out which texts are examined at various points during a walk through a shopping street or from one specific strategically chosen place, or to assess which linguistic features attract people's attention. Researchers who want to work with eye tracking will face a learning curve in which they will have to familiarize themselves with terms such as saccades and fixation points (Salvucci & Goldberg, 2000) and the sorts of data that can be generated, analyzed and presented (Carter & Luke, 2020). Eye tracking data (fixations, saccades and other variables) can be analyzed statistically and summarized in gaze plots, areas of interest (AOI) and heat maps.

Seifi (2015) is one of the first to investigate the linguistic landscape in a laboratory setting with an eye tracking device. In her experiment, 44 participants looked at images from the linguistic landscape in Leeuwarden-Ljouwert (partly from the same street where we did one of our first studies [Cenoz & Gorter, 2006]; see Chapter 2). The participants looked at images and movies of the linguistic landscape on a computer screen in a laboratory setting with a table-mounted eye tracking device. In this

way, Seifi could determine the types of signs that attracted most of the viewers' attention. The results showed that Dutch, the majority language, had the highest average fixation count and duration, followed by English and multilingual signs. Frisian, the minority language, received average attention – 'Frisian was not among the less attractive signs in the linguistic landscape of Leeuwarden' (Seifi, 2015: 40). Her study demonstrated that eye tracking is a promising tool for the analysis of how linguistic landscapes are viewed, although she added that a mobile eye tracker could provide more precise information about the Frisian language.

A team of researchers in Montreal have applied the method in a linguistic landscape study, in their case in a bilingual English–French context. Vingron *et al.* (2017) wanted to introduce eye tracking as a serious research method for linguistic landscape studies. They conducted a small-scale eye tracking study among a group of six bilingual students at an English language university. In a laboratory setting, the participants were presented with 60 images of the bilingual linguistic landscape in Montreal; some monolingual French, others English and others bilingual. They found, among others, that all participants spent more time looking at texts than at objects, a result in agreement with the studies they refer to by Rayner and colleagues about text and pictorial information in print advertisement (Rayner *et al.*, 2001). The results suggest that the viewing patterns of the participants with French as a first language are slightly different from those of the participants with English as a first language, although both groups looked at the French text first. Vingron *et al.* (2017: 241) conclude that 'the eye movement method holds promise for expanding upon the kinds of questions sociolinguistic and psycholinguistic researchers can ask of LLs'. In a follow-up of the same study, Leimgruber *et al.* (2020) reanalyzed the same data specifically to look into the question of who is more affected by the provisions of Bill 101 which prescribes the use of French on signage (see Chapter 2 for Montreal as a case and also Chapter 8). They focused on bilingual French–English signs and separated the signs that comply with the law (French text twice the size of English) and other signs where French and English were the same size. They found that the students with French as their first language were less affected by the font size than those with English as their first language. Based on a small sample, these findings from the laboratory cannot simply be extrapolated to real-life environments where the viewing practices of people are far more complex. For these researchers, eye tracking is a useful tool that can complement other ways of investigating what people notice in a linguistic landscape. Leimgruber *et al.* (2020: 19) argue that 'systematic and rigorous research on what gets noticed in a multilingual LL (…) is a critical part of conceptualizing and understanding LLs more generally'. They are convinced that their results are relevant for other settings and they specifically mention Wales, Catalonia and the Basque Country. These laboratory eye tracking experiments

should be complemented with wearable eye tracking devices that record viewing behavior, for example when walking down a street. As we mentioned in the section on video recording, three of De Wilde *et al.*'s (2022) students wore digital video glasses to record what they saw in a linguistic landscape, but those glasses did not have eye tracking technology included. Combining video glasses with eye tracking technology has been used in other fields and now that it is becoming more accessible it could be an exciting and innovative way to carry out linguistic landscape research. Another possibility with some expectations is to combine eye tracking and virtual reality (Clay *et al.*, 2019) and have participants look at pre-created virtual linguistic landscapes.

We must be aware, however, that the results of eye tracking provide valuable information for the (linguistic) 'input' received by a person, but they do not explain much about the 'intake', the actual reading of texts (in different languages). To figure that out a second step is needed, for example, by questioning participants during the experiment or retrospectively about which signs they read and in which language(s). Overall, eye tracking seems a valuable research method for examining linguistic landscapes, but with some limitations. We see it as an interesting possibility in the application of the multilingual inequality in public spaces (MIPS) model (see Chapter 3), in particular, for the fourth component of 'what people see and read' (perception) and the fifth of 'what people think and do'; in other words, how people reflect on, react to and use their languages.

5.10 Concluding Remarks

The method of collecting digital photographs of signs and using photographic material as data for the analysis of signage has become exemplary for linguistic landscape studies. As we have seen, there are some important considerations for this method, in particular the quality of published photographs is an area for improvement. Payne (2020: 55) concluded that the linguistic landscape approach is 'an essential part of the sociolinguist's and linguistic-ethnographer's toolkit, alongside the more traditional methods of interviews, questionnaires, archival research and so on'.

In this chapter, we have discussed the advantages and disadvantages of distinctive and innovative methods that have found application in linguistic landscape studies. Some of these, such as video recordings or walking interviews, have been used on a wider scale in other social sciences and have been shown to be useful for gaining a deeper understanding of linguistic landscapes. The technique of eye tracking has thus far only been used by a few researchers, although we are convinced that it could be highly relevant. The technique has proven its value for psycholinguistics, marketing research and a wide range of other specializations.

Other methodological challenges for researchers in this field are still waiting. For example, analyzing digital video screens in public spaces or viewing the environment through easily wearable virtual, artificial and mixed reality devices, similar to glasses. Perhaps in the near future, people will wear such devices in the streets similar to how they now hold and look at the screens of their mobile phones. Szabó and Troyer (2017: 322) asserted that in the case of new research methods, 'researchers should be aware of and specify the parameters along which their methods of data generation are oriented'. We agree that researchers have to think carefully about how they apply the methods we have mentioned in this chapter.

In all cases, researchers also have to consider how they position themselves. For example, Lou (2016a) reflected on her own role as a researcher and an activist in Chinatown because she was a volunteer teaching English classes to elderly Chinese immigrants. Researchers may want to become involved with the world they study and become activists or they may choose to remain a distant academic who is removed from the everyday practices of the people who inhabit the linguistic landscapes studied. Another possibility is to become a policy advisor for a government or a non-governmental organization to propose changes to signage in a desired direction (on the roles of academic, activist and advisor, see Gorter [2012b]).

6 Multilingualism is All Around Us

6.1 Introduction

'A new approach to multilingualism' was the somewhat provocative title given to our first publication about linguistic landscapes (Gorter, 2006a). Perhaps the claim in the title was slightly exaggerated, but its intention was to point to a common thread that ran through the four contributions in the special issue of the *International Journal on Multilingualism*, later republished as an edited book. Multilingualism was a recurring theme in those four by now 'classic' studies of Tokyo (Backhaus), Israel (Ben-Rafael *et al.*), Bangkok (Huebner) and the Basque Country and Friesland (Cenoz and Gorter). It turned out that the collection would give important impetus to the development of the field. Ten years later, Van Mensel *et al.* (2016: 426) concluded that those publications 'prompted considerable interest from the research community' (see Chapter 2). As its authors, we were, of course, well aware that the world at the beginning of the 21st century had become multilingual in the full sense of the word and that the study of linguistic landscapes could become a new and powerful instrument to improve further understanding of multilingual phenomena in different contexts. Kelly-Holmes (2014: 136) has called the linguistic landscapes approach 'the most well-known and widespread approach to analysing visual multilingualism'.

As we pointed out in Chapter 1, multilingualism and the diversity of languages are important topics in almost any linguistic landscape study and all other chapters of this book are permeated with issues related to the theme in manifold ways. For example, in other chapters we see how minority language communities are struggling to obtain a presence and visibility for their language (Chapter 7), we look at the language policies that regulate the use of languages (Chapter 8) and we see studies about English around the world, appearing alongside other languages (Chapter 9). In some sense, all of those studies are dealing with issues related to multilingualism and therefore, this can be a more limited chapter that deals explicitly with some recent developments in the study of multilingualism in general and the categorization of multilingualism in signage.

More specifically, we focus on translanguaging, a concept that has garnered a great deal of attention in the past few years.

Linguistic landscapes literally display the diversity of languages because it is hard, if not impossible, to find a substantial sample of signage from any given shopping street around the world that contains only one language. Larger cities in Western Europe easily have over 50–100 different languages spoken as the home language by their inhabitants (Extra & Gorter, 2008), among which are Arabic, Berber, Chinese, Hindi, Kurdish, Punjabi and Turkish. Multilingualism has increased due to the widespread distribution of commercial and cultural products, aided by long-distance transport, high-speed internet communications and masses of mobile people and large migratory flows, in other words, due to globalization (see Chapter 9 for a discussion). However, the monolingual ideology of the state is still strong as the prevailing standard and it dominates many debates about language use and language teaching (Ortega, 2019). Truly monolingual countries as a social reality were always an exception, even when they were articulated in the well-known ideological slogan 'one state, one language'. In today's globalized world, monolingual countries have become obsolete and linguistic landscapes are a clear expression of this global multilingual reality. Studies of linguistic landscapes can contribute to the discovery of patterns in the diversity of language displays and can offer possibilities for gaining a deeper knowledge of multilingualism.

At the beginning of the field, multilingualism was important and it has remained a central theme of linguistic landscapes studies over the years, a development that runs parallel to similar developments in applied linguistics, sociolinguistics and other specializations where multilingualism has come to the fore as a highly relevant research issue. These changes have been referred to as a 'multilingual turn', a process which we will discuss in Section 6.2, including the concept of translanguaging and its application to linguistic landscapes. Proposals for categorizing multilingualism in signage are summarized as two typologies in Section 6.3, and Section 6.4 discusses our own work on multilingualism. In Section 6.5, the chapter ends with some conclusions.

6.2 The Multilingual Turn

Today, multilingualism is a frequently studied area in applied linguistics, sociolinguistics and education sciences. This is the outcome of developments which started some years ago and has been referred to as the 'multilingual turn' (Conteh & Meier, 2014; May, 2014). The reason for a change of paradigm is the quest for a deeper understanding of how languages influence each other, as well as people's behavior. Scholars started to question the premise of 'a language' as a bounded system and the multilingual turn implies a shift away from accepted representations

of languages as discrete, countable entities and a change of perspective on language as 'a given' toward languages as 'a resource' (Makoni & Pennycook, 2007; May, 2014). These changing assumptions have equally been taken up in linguistic landscape studies. In one of the classic linguistic landscape studies about the mixing of English and Thai, Huebner (2006: 50) explicitly challenged the idea of 'a language' at a theoretical level and he wondered '[w]here [...] one language end[s] and the other begin[s]'. Similarly, in their study of billboards and road signs in Delhi, Agnihotri and McCormick (2010: 58) concluded that the signs 'showed varying degrees of language separation and blurring of linguistic boundaries'. Thus, in various ways, linguistic landscape studies have contributed to debates about languages as bounded entities and the multilingual turn.

BOX 6.1 FOCUS ON MULTILINGUALISM

In our own work, we have contributed to the multilingual turn by offering the approach called 'Focus on Multilingualism' (Cenoz & Gorter, 2011). We applied this theoretical approach to our research in education (Cenoz & Gorter, 2015). Our primary aim was to uncover the complexities of multilingualism in education. Multilingual speakers use their languages for different purposes: sometimes they use only one and at other times their languages can alternate, mix or blend. Multilinguals navigate between languages in interaction using all of their linguistic resources. Multilingual competence is fluid, not fixed, and difficult to measure but real. We applied our approach in research on multilingual education, as well as multilingualism in the workplace (Van der Worp *et al.*, 2018). The main ideas are also relevant for the study of linguistic landscapes.

Our approach has three dimensions: (1) the multilingual speaker; (2) the whole linguistic repertoire; and (3) the social context. These can be briefly summarized.

(1) The multilingual speaker: The communicative skills of multilingual speakers have traditionally been measured from a monolingual perspective against the yardstick of the ideal native speaker. In the real world, multilinguals use their skills at different levels depending on their communicative purposes. Multilingual speakers have to be considered in their own right and not as monolingual speakers of each of their languages. Multilingual speakers are interacting with other multilingual speakers and inhabiting multilingual linguistic landscapes.

(2) The whole linguistic repertoire: Multilingual speakers use all of their languages, but the repertoire can range from maximally known languages through partial language competence to minimal competence (Blommaert & Backus, 2013). The multilingual's repertoire includes 'recognizing' competence, that is, the ability to identify a word

or text as belonging to another language. Minimal competence can be important for reading signs that contain more than one language.

(3) The social context: Multilingual speakers acquire and use languages while engaging in language practices, use their linguistic resources in a social context and shape this context in communicative interaction (Canagarajah, 2013). Research on multilingual practices has shown that multilinguals have more possibilities to use all of their languages as a resource for successful communication. Confronted with multilingual signage, the speakers have the ability to navigate through multilingual linguistic landscapes.

The multilingual turn signals new trends in multilingualism research and translanguaging has become one of the most widely used concepts. Translanguaging intends to overcome conventional representations of languages as discrete, countable entities. García (2009: 45) defined translanguaging as 'multiple discursive practices in which bilinguals engage in order to make sense of their bilingual worlds'. It refers to all uses of language in order to construct meaning and it is useful to understand flexible and dynamic multilingual practices. Translanguaging is related to and includes doing translations and code-switching, but these are concepts that still presuppose at least two languages or codes as separate entities. The meaning of the concept of translanguaging has evolved over time. Otheguy *et al.* (2015) included a psycholinguistic 'unitary view' of a single undifferentiated cognitive competence, although the same authors recognize that 'named languages' are important sociopolitical constructs. Li (2018) extended its meaning further by proposing translanguaging as a general, practical theory of language, assuming that speakers do not use distinct named languages but are 'languaging'. For linguistic landscape studies, it is interesting that García (2009: 45) explicitly mentions translanguaging as relevant for making 'sense of signs written in two or more languages in the community, often communicating different messages'.

In most of the literature, translanguaging refers to the spoken mode and thus far, the concept has only sparsely been applied to linguistic landscapes. In Gorter and Cenoz (2015a), we proposed using translanguaging, in the sense of moving between languages, for the study of linguistic landscapes. We started from the idea of looking at various linguistic signs from one point of view and then simultaneously alternating between the texts that can be read in different displays of language. We proposed that the linguistic landscape itself is a multilingual and multimodal repertoire, which is used as a communication tool to appeal to passersby. Translingual practices are not the same for everyone and they vary between cities and neighborhoods depending on, among others, their sociohistoric development or degree of social and linguistic diversity. This exciting

approach can lead to a better understanding of the complexity of translanguaging at the level of city residents or visitors and, at the same time, obtain knowledge about trends at the level of neighborhoods with diverse populations.

For us, multilingualism, as opposed to separate, individual languages, is an important point of departure for linguistic landscape studies. Languages as bounded, separate codes are problematized, and flexible and dynamic multilingual practices can be captured in physical linguistic landscapes. The focus shifts away from separate languages toward the fluidity and fuzziness of languages. Through the application of the concept of translanguaging, we can foreground the co-occurrence of different linguistic forms, signs and modalities.

Our ideas about translanguaging and linguistic landscapes have been picked up by other authors. Pennycook (2017: 63) noted that we have sought to bridge the gap between translanguaging and linguistic landscape research by arguing for 'a holistic view that goes beyond the analysis of individual signs as monolingual or multilingual'. He found that our work has been 'bringing translanguaging perspectives into linguistic landscape research [...] rather than bringing the broad semiotic bricolage of linguistic landscapes into translanguaging'. Referring to our article, Van Mensel *et al.* (2016: 432) argued, 'Translingual practices thus emerge not only in individual multilingual units, but also in highly dynamic multilingual and multimodal repertoires, and in specific social contexts of smaller interactional spaces and neighborhoods at large'. Similarly, Calvi (2018: 156) appreciated our arguments and considered the concept of translanguaging particularly well suited to linguistic landscapes mainly because it highlights activity reflected in the -ing form of the verb. For Calvi, translanguaging is present when inside one unit different languages are found that do not translate the same contents from one language to another, but rather contain different messages, directed to different recipients. She gives the example of the sign of a travel agency that uses six different languages.

Álvarez-Mosquera and Coetzee (2018: 499) also agreed with our proposal about translanguaging, in particular when they quote our words that 'individual signs combine, alternate and mix to shape linguistic landscapes as a whole' (Gorter & Cenoz, 2015a: 1). They saw the lens of translanguaging as fitting for their own holistic analysis of the signage in a market in a South African township. There, they used the comments of a local participant to highlight the complexity of language use and distribution in the research site.

Based on some ideas from our work, Song (2018) adopted translanguaging as a theoretical perspective because it highlights multilingualism as the norm and involves the use of multilingual and multimodal repertoires in a social context. She applied the ideas in a case study of the linguistic landscape of a photo studio in Shanghai for which she

included online and offline data (see Chapter 4). Another example comes from Bradley (2017: 20) who discussed our ideas on translanguaging and applied them in an educational project called LangScape 'as a lens for children and young people to develop critical and analytical skills' (see the LangScape project in Chapter 10). Our discussion on translanguaging, together with the notions of metrolingualism and complexity helped Gaiser and Matras (2016) to rethink their approach to the categorization of written signs in their study on multilingualism. In the study, they present the smartphone app LinguaSnapp which we explain in Chapter 4.

Translanguaging as a concept competes with terms such as metrolingualism, heteroglossia, polylingualism and code-meshing (Jaspers & Madsen, 2019; Li, 2018). Other authors have preferred some of the alternative terms, which by and large refer to the same fluidity and complexity of languages. For example, Jaworski (2014) used the notion of metrolingualism as introduced by Otsuji and Pennycook (2010) to look into several examples of contemporary text art and draws parallels between text art and other forms of linguistic landscapes. He then goes on to suggest that heteroglossia is a more encompassing term than metrolingualism for indicating fluidity and negotiation of identity. Seals (2015) also used heteroglossia (and dialogism) as her key term in an analysis of the linguistic landscape of mass protests. Bailey (2012) explained that heteroglossia, a term derived from the work of the Russian philosopher and literary critic Mikhail Bakhtin, refers to the simultaneous use of different forms of language or signs as well as the tensions and conflicts arising from those signs. It includes multilingualism but is broader because it includes intra-language variation.

Amos (2020) used the term 'polylingualism' when he problematized the notion of multilingualism in his study of English in French advertisements. Polylanguaging and translanguaging were mentioned by Yao (2021), who prefers metrolingualism as a concept to analyze complex and fluid online linguistic landscapes. Whichever the preference or the nuance is of the different authors, one basic idea that remains is to include all forms of languaging and to emphasize fluidity rather than the discreteness of different languages.

A final point we made in our article is that 'translanguaging is certainly an approach to linguistic landscapes that enriches the study of multilingualism and takes it forward' (Gorter & Cenoz, 2015a: 71). For us, translanguaging is a dynamic concept that facilitates seeing linguistic landscapes as a multilingual and multimodal repertoire being used as a means of communication in contact with passersby. People do not read all signs all of the time and they do not give meaning to all signs, but those signs have functions and have been placed with a purpose. For example, signs can be used to attract, to locate, to warn, to prohibit or to give directions, and signs can also be disruptive, invasive or diverting.

BOX 6.2 MULTIMODALITY AND MATERIALITY

Multimodality is a general concept to describe how meaning can be expressed in communication by using different resources. It is an important and widely used term in linguistic landscape studies and it looks beyond language to refer to additional aspects of communication. Basically, the idea is that signs in public spaces are about more than just the written language because signs use different modes to communicate meaning. Those modes include images or objects, sounds or music and also motions or gestures, and thus signs are conceived of as multimodal messages. This implies that linguistic landscape studies are not limited to identifying systematic patterns of written language, but go beyond texts 'in line with current theories about multimodality' (Shohamy & Ben Rafael, 2015: 1).

The interplay between different representational modes is central to the communication process. Different types of modes include linguistic, visual and spatial, but can also comprise aural and gestural. Different parts of signs contribute to their meaning making because language, color, symbols, placement, relative size and use of space are connected and interact in complex ways. In order to bring out the meanings, Kress and Van Leeuwen (1996: 181) proposed to analyze multimodal texts based on three principles of composition: (1) placement of elements, which gives the information value; (2) viewer's attention, which is attracted through salience, that is size, foregrounding or contrast; and (3) dividing lines, which lead to the framing of elements.

In our own work, we noticed the possibility of developing multimodal literacy through linguistic landscapes because signs have a combination of text as a physical object, material characteristics, images and the space they occupy. Thus, multimodal texts can provide an additional opportunity for language learners to develop their literacy skills (Cenoz & Gorter, 2008). In our discussion of translanguaging, we emphasized that 'the linguistic landscape itself is a multilingual and multimodal repertoire' (Gorter & Cenoz, 2015a: 63). Pütz and Mundt (2019b) see multimodality as an umbrella perspective that implies widening and advancing the study of multilingualism in linguistic landscapes. Still, Pennycook (2017: 279) sees a focus on only multilingualism and multimodality as limiting and he wants to move beyond those two concepts 'to bring in the multisensorial nature of our worlds'. Hence, Pennycook and Otsuji (2015) include smellscapes in their study of markets in, among others, Singapore and Sydney. For further argumentation see the introduction to a special issue on multilingual, multisensory and multimodal repertoires by Hua *et al.* (2017).

The material that signs are made of is one of the most important modes to communicate meaning. After all, material things are with us

all the time and they provide the environment for our activities. The material environment shapes the context in which our lives are played out and we use things to shape the world around us (Dant, 2005). The linguistic landscape and the material are strongly linked and the physical or material properties of signage have an impact on their use. Therefore, in various linguistic landscape studies attention has been given to the impact of material factors and how language and material objects may together express or create meaning. Every artifact or object in a place can be taken as semiotic, that is, as meaning-making material.

The approach of geosemiotics (Scollon & Scollon, 2003; see Chapter 3) centers on the idea of 'emplacement', the location of signs in the material world and on language and its relations to objects and technologies. Their theory of signs in space is not focused on signs as abstract or mental constructs, but emphasizes making connections between texts, actions and the material world.

Stroud and Mpendukana (2009, 2010) argued for a material ethnography of multilingualism to demonstrate the links between the multilingual and multimodal resources of signage. They investigated the material constraints and possibilities of multilingualism on signs in sites of luxury and necessity (see Chapter 3). In their material ethnography, languages on signs are related to technologies, artifacts and spaces and the linguistic landscape is part of a wider study of meaning in society. They point to the reciprocal relationship of place and artifact influencing how multilingualism is depicted and at the same time how the different multilingual signs affect the reading and viewing of a place. Multimodality and materiality are also central to the ethnographic study of the tattooing culture in Cape Town, South Africa, by Peck and Stroud (2015). They consider the body as a dynamic and mobile space and the 'skinscapes', the linguistic landscape that is carried on the skin, are inscriptions doing identity work which is related to affect. They conclude that focusing on the body can put studies of signage in broader theories of places and persons.

Geosemiotics and the material ethnography of multilingualism were important sources of inspiration for Blommaert (2013) in developing his ethnographic framework for the analysis of linguistic landscapes. In this important research framework, signs are treated as multimodal and material objects to better understand the sociocultural meaning of language (see Chapter 4).

Building on geosemiotics and on general studies of material culture, Aronin and O'Laoire (2012) emphasized the specific study of the material culture of multilingualism. They describe it as the study of artifacts and objects, including rituals, events and public spaces, and how those are used and organized. Materialities are seen as a reflection

of identities and values and a common idea is the interaction between objects and beliefs or behavior. They focus on language-defined objects, in which verbal and material components form a meaningful whole. For example, the materialities of minority languages on signs, T-shirts, monuments, buildings, etc., can function to symbolically mark linguistic vitality or to point to historical links with a location.

Jimaima and Banda (2020) combined the insights of Stroud and Mpendukana (2009) with those of Aronin and O'Laoire (2012) in their investigation of materiality in the linguistic landscape in Livingstone Town (Zambia). Similarly, Sebastián (2019) focused on the actual materiality of the signs in his analysis of the linguistic landscape of Asturias in Spain, and he mentions font, material and layering as characteristics, and if the signs were sturdy, durable or fixed.

In sum, we can conclude that multimodality and materiality can be important concepts in the toolbox of the linguistics landscape researcher.

6.3 Typologies of Multilingual Signage

Signs with more than one language on them can pose a challenge to researchers (Figure 6.1). As we saw, multilingualism is usually an important characteristic of signage and languages are not always clearly separated into compartments or isolated from each other and the information provided in different languages is not necessarily the same. In

Figure 6.1 Importance of multimodality, materiality and emplacement (Montreal)

this section, we look at some proposals for the analysis of languages on bilingual and multilingual signs.

The typology by Reh (2004) has become a classic in the field. In her study of the signage in Lira Town in Uganda, Reh (2004: 8–15) developed 'a reader-oriented typology of multilingual writing'. She wanted to account for the arrangement of multilingual information on signs. In her model, she distinguishes between four types of combinations of languages and information:

(1) 'duplicating', the same text is presented in more than one language;
(2) 'fragmentary', the full text is given in only one language, but parts are translated in one or more other languages;
(3) 'overlapping', part of the content is repeated in two (or more) languages, but the pragmatic form and meaning are different, and other parts are in one language only;
(4) 'complementary', where different parts are displayed in different languages.

According to Reh, for the first two types monolingual readers can be assumed, but the last two types presuppose a multilingual reader to understand the whole text. Several researchers have tried to apply Reh's typology in their own studies.

For example, Rosendal (2009) reported about the linguistic landscape in Rwanda that most multilingual signs were overlapping or complementary. Similarly, Pavlenko (2009: 267–268) observed that information on multilingual signs in many different post-Soviet countries, among those Ukraine, Azerbaijan, Belarus and Moldova, is arranged in a complementary manner. O'Connor and Zentz (2016) observed in Brownsville, Texas, that the locally produced commercial signs usually displayed complementary bilingualism and, in contrast, they found duplicating bilingualism in English and Spanish only occasionally, especially on official signs. This recalls the differences in the way multilingualism was displayed on official and non-official signs in Tokyo as observed by Backhaus (2006), where there were more foreign languages in the non-official signs.

Different findings were reported by Bruyèl-Olmedo and Juan-Garau (2015) who found that most multilingual signs in Majorca duplicated the information in two or more languages. Amos (2017) also refers to Reh's terminology in his study of bilingual street signs in French and the regional language Occitan. He found that the name part of signs had 90% direct translations or duplicating multilingualism, similar to Bruyèl-Olmedo and Juan-Garau. He discussed some cases of overlapping multilingualism in detail and linked the latter type to visual hierarchy with French on top, to informational differences and a covert preference for Occitan. This covert preference becomes most clear in the supplementary part of the street signs, where several signs offer more information in Occitan and in some cases in Occitan only. Still another

outcome is presented by Al-Athwary (2017) who applied Reh's typology on data from Sana'a, the largest city in Yemen. In his sample of 755 bilingual signs in Arabic and English and their varieties of Romanized Arabic and Arabicized English, he found that types of duplicating and fragmentary multilingualism dominate (48% and 47%, respectively) and that overlapping and complementary multilingualism are relatively rare (less than 5%).

In terms of Reh's four categories, Wu and Techasan (2016: 46) found 'the overwhelming majority of the shop names in Chinatown Bangkok belong to the first three types, which contain complete or partial mutual translations'. Based on the arrangement of the information in multilingual signs and the grammar of the three languages Chinese, Thai and English, the authors concluded that the function of Chinese is mainly symbolic; Thai is used for giving information, while English is seen as the trendy global language.

Applying the same categories again, Lipovsky (2019a) observed differences between languages in the Parisian Chinatown neighborhood of Belleville. She mentions that on bilingual shops fronts, Arabic is usually displayed symmetrical (French on the left and Arabic on the right), but it is fragmentary because there is usually less information in Arabic. In contrast, Chinese shop fronts usually have a complimentary display. She found that English is more often used in duplicating ways, and she further reports on the mixing of English and French.

Multilingual signage in terms of Reh's typology has to be interpreted as more than the literal message according to Kallen and Ní Dhonnacha (2010). They compared signs in Ireland and Japan while considering metaphorical reference to be a key element in signs. They see it similar to metaphorical code-switching in oral use, where a switch changes the interpersonal relationship and this is different from situational switching where there is an external reason for the switch because of topic, setting or participants. They present an extensive analysis of one example of a shop front with complimentary messages in English and Irish written in a traditional font. However, the messages are not addressed to two different audiences because as Kallen and Ní Dhonnacha (2010: 25) argue they are 'indexing the shop's claim to be simultaneously global and modern as well as local and traditional'. As a whole, the sign is intended to communicate something relevant to all readers.

The contrasting findings in the studies in their application of Reh's typology may be due to real differences in the social contexts or to differences between the languages involved. In some cases, it is also due to variations in the way the four categories are applied.

Several other researchers have made only a passing reference to Reh's model, among others, Ding *et al.* (2020), Izadi and Parvaresh (2016), Lanza and Woldemariam (2014b) and Rasinger (2014). For them, the typology was probably a source of inspiration in their analysis, but they do not provide details of how they have applied the typology.

In contrast, Pavlenko and Mullen (2015) discussed Reh's typology at length and they criticize the assumption that signs are designed to maximize the number of readers because this is often not the case and sometimes signs are not even designed to be read at all. They present examples where the literacy skills of the population are rather different from the display of languages in the linguistic landscape, for instance, in Latvia the high competence of Russian in contrast to its low presence. We agree with Pavlenko and Mullen that a more general case is the low levels of competence in English in many countries where English may have a substantial presence, but it is displayed for other reasons, such as social prestige. Even in countries with high levels of English, such as the Netherlands, bilingual signs that include English are not fully understood by the target group (see Chapter 9). In the cases of Welsh or Irish, the duplicating signs can be more an aspirational ideology and populations are not fully bilingual; this is a phenomenon we have observed ourselves in signs in Basque or Frisian. In those cases, parallel bilingualism does not consider the reading skills of a potential audience in the first place, but it is the outcome of supportive language policies to promote the visibility of the minority language. Fragmentary, overlapping and complementary types of signs are not necessarily aimed at multilingual readers, and Pavlenko and Mullen (2015) provide some interesting examples from ancient times. Even if it implies a reduction of complex situations, a typology like Reh's can be useful to identify a general trend or a norm, but it also needs to keep us aware of exceptions and peculiarities in different contexts.

Sebba (2013) made an effort to develop an alternative to Reh's framework for the analysis of multilingual texts. His ideas originate in models of code-switching in oral communication and he distinguishes between 'language–spatial relationships', 'language–content relationships' and 'linguistic mixing types'. The language–spatial relationships refer mainly to where parts of a text are placed on a sign, and this can be symmetrical, asymmetrical and mixed. Sebba also mentions the importance of the code preference system (Scollon & Scollon, 2003) which privileges the top, left and center of a text, at least in cultures with left to right, top to bottom script direction. His second dimension of language–content relationships has three possibilities: (1) equivalent texts, which have the same or similar content in the languages; (2) disjoint texts, with different content; and (3) overlapping texts, in which some of the content occurs again, and some not. These three possibilities obviously bear strong similarities to Reh's typology. The third dimension of this alternative typology is 'linguistic mixing type', which can be monolingual, mixed or language neutral. The unit of a text is decisive because when a unit is monolingual, the unit can still be inside or form part of a larger unit with another language. Together, the two units then create a mixed textual unit. For Sebba, such mixed textual units match the prototype of code-switching in spoken language and likewise there may be functional reasons for the alternation of languages. The category of 'language neutral' applies for Sebba (2013: 108)

to units 'that cannot be assigned exclusively to one language but belong equally to both (or all) the languages involved'. These are usually smaller units, such as single words, but can also be brand names and other proper names. However, this idea of 'language neutral' is not all that clear-cut and the issue to which language a brand name belongs has been discussed extensively by other linguistic landscape researchers (see Chapter 11).

Sebba used his typology of three dimensions to establish two contrasting categories of multilingual text: 'parallel' and 'complementary' texts. The parallel type of multilingual text, for example, a bilingual sign, consists of two or more matched units that have a 'symmetrical' arrangement and it has the same or 'equivalent' content in each language, and each unit is monolingual, thus without 'language mixing'. This serves the sociolinguistic functions of visual equality, monolingual preference for readers and an ideology of monolingualism. In contrast, 'complementary' texts are characterized by 'asymmetrical' language–spatial relationships and 'disjoint' language–content relationships. The 'linguistic mixing' type can be varied: only monolingual units or also any combination of monolingual, mixed and neutral units. This type of text takes the literacy skills of intended readers into account, and is only appropriate for someone who can read both languages. Of course, there can be multilingual texts that fall somewhere in between these two contrasting categories, for example, a bilingual sign with symmetrically placed units but different content or the opposite: the same content but not symmetrically arranged.

Sebba's categorization was applied by Luk (2013) in a study of 10 bilingual texts in Hong Kong. She drew on insights from the framework by looking at 'language–spatial relationships' and 'language–content relationships'. She found creative phonological and lexical hybrids of English and Chinese or Cantonese, with bilingual texts enhancing the meaning of the message. Readers need skills in both languages to appreciate its playful nature. The visual and spatial arrangements and the typographical design contribute to the playful effects, which is different from the conventional parallel texts on official signs.

The typologies of both Reh and Sebba were used in Zhang and Chan (2015), who suggested a framework of flexible and separate multilingualism to analyze posters in Macao (see also Chapter 9). For them, translanguaging is a typical manifestation of flexible multilingualism, where language boundaries are blurred by the designers of the posters using two or more languages. In addition, Kathpalia and Wee Ong (2015) made use of both typologies for a study that aimed to analyze Hindi-English code-mixing ('Hinglish') in a long-term billboard advertising campaign in India. Based on a dataset of almost 1,200 billboards dated between 2000 and 2013, the authors concluded that hybridization or language mixing in advertising is essential for creativity.

Related to these typologies of multilingualism in signs is another interesting phenomenon called 'writing system mimicry'. Sutherland

(2015: 147) described it as 'the choice to make a text in one writing system superficially resemble text in another'. It is also called 'faux Arabic', 'faux Cyrillic', etc. Obviously, this phenomenon does not fit so easily with the frameworks of Reh or Sebba. Often, product names or texts are written in English but have features of the typography or the script that are associated with other languages and cultures. In his study in the city center of London, Sutherland came across 21 shop fronts that displayed signs of mimicry (out of 523 shops, thus 4.1%). Most of the time it was mimicking Arabic or Chinese and it occurred more in eateries than in other services. Mimicry was used as a tool for advertising or identity purposes, or both (Figure 6.2).

Figure 6.2 'On the go': mimicry in banner, with Greek (Athens)

Al-Athwary (2017) found mimicry a striking feature of the signs in his study of the linguistic landscape in the city of Sana'a in Yemen. There, for example, Arabicized English functioned in the private sector for advertising purposes, more than for the expression of local identity. According to Al-Athwary, mimicry is a phenomenon that deserves further examination. In some cases, mimicry seems similar to 'globalese', which Jaworski (2015b: 232) describes as a global consumer register that has 'new, creative ways of using nonstandard orthographic and typographic resources', suggesting cosmopolitanism or a global identity. Globalese can combine letter forms, punctuation and diacritics to create new, foreign forms not usually found in the languages in which they are used. Jaworski also links it to translanguaging as it goes across languages and can be adapted to almost any linguistic environment. According to Jaworski, globalese can be situated socioeconomically on a middle level between lower vernacular spaces and the emptiness or silence of elite spaces.

Writing system mimicry in typography or script, which is similar to globalese, was studied by Strandberg (2020). The aim is to give a Nordic or Scandinavian look to certain products, for example, in fashion, food or interior design to make the product look exclusive or link it to global trends. The examples Strandberg discusses come from Belgium, Germany and the Netherlands and are about real Nordic words such as Danish *hygge* or Finnish *fika*, but she also found exaggerated forms in nonsense names (e.g. *Bårr*) and 'faux Nordic' by using stereotypical orthographic features from Nordic languages such <ø>, <å>, <ö> or <æ>. Strandberg links the use of Nordic features to the distinction-making signs that Trinch and Snajdr (2017) found on the storefronts in Brooklyn, New York. This type of sign uses an aesthetic of simplicity with store names of just one word or a short phrase, for example *james* or *bird*. Only lowercase letters are used, often with a hidden or multiple meaning and languages other than English indicate sophistication which aims to make a place distinctive. Trinch and Snajdr (2017) see distinction-making signs in opposition to the old school vernacular signs. Those traditional signs are multi-word signs with, among other, large lettering that typically includes the name and the type of business or service and the location, and can include languages other than English and references to religion, ethnicity, national origin, race and class (Figure 6.3).

A slightly different, but similar differentiation between two types of multilingual signs was introduced by Cook (2013), based on his fieldwork in Newcastle upon Tyne. He distinguishes atmospheric and community signs, where atmospheric signs have a function to locate, attract and inform, for example, Chinese characters at a restaurant, but there is no expectation that readers can understand any other language than English. In contrast, community multilingualism signs serve practical informative purposes in different languages. Cook includes a discussion of various

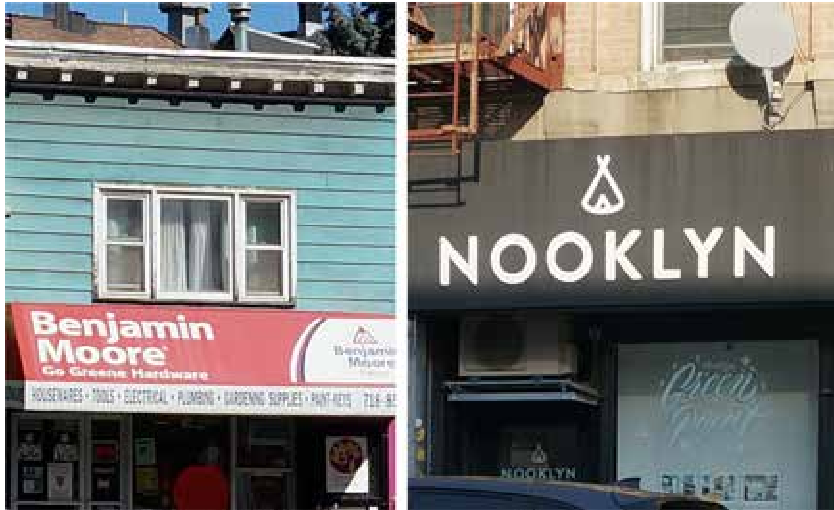

Figure 6.3 Two types of store signs in Brooklyn, New York

aspects of the typography and punctuation of signs (see also Chapter 9 and Cook [2022]).

The distinction between two types of signs, be it distinction-making versus old school vernacular, or atmospheric versus community, harks back to the distinction between symbolic and informational signs which were part of the reflections of Landry and Bourhis (1997) on the linguistic landscape (see Chapter 2). Androutsopoulos (2007) pointed out that the decision to use one or more languages in advertising is the result of careful planning and the allocation of languages is strategic and related to aesthetic value, symbolic force and the effect on the audience. Mixing languages, scripts and typographies can blur the lines between separate languages and can provide the right type of input for potential clientele.

In conclusion, we can observe that the typologies of Reh and Sebba have demonstrated their value for linguistic landscape work. The dichotomies of two main types of signs, like *distinction-making* and *old school vernacular* or, alternatively, *atmospheric* and *community*, provide us with a further understanding of the differences between signs. Of course, a monolingual sign is usually relatively easy to classify in terms of the language on display, unless it is ambiguous as in mimicry or globalese. When two languages are involved, those languages can be displayed in a duplicating, fragmentary, overlapping or complementary way. Two languages can have a parallel or literal translation, or they can be mixed. However, things become more complex and the difficulty of analysis increases when more than two languages are displayed because then the arrangements can be manifold. Moreover, there can be complex issues of placement (top/bottom; side by side; writing direction), multimodal aspects (colors,

size, material) and issues of typography or writing systems in a multilingual sign more than in a monolingual or a bilingual sign.

BOX 6.3 *METROPOLENZEIGEN*/SIGNS OF THE METROPOLISES: A LARGE-SCALE PROJECT

The multi-annual project *Metropolenzeigen*/Signs of the Metropolises is an important example of a large-scale linguistic landscape project which ran from 2013 to 2018 in Germany. It was carried out in the Ruhr area, which comprises a total of 5.3 million inhabitants in the four cities of Duisburg, Essen, Bochum and Dortmund (Ziegler *et al*., 2018, 2019). In each city, two neighborhoods were chosen for further investigation of the linguistic landscapes and a total of 25,595 photographs of signs were collected. Moreover, brief street interviews were held with 120 informants, 15 in each of the eight neighborhoods, and also with sign producers (n = 60). A telephone survey was conducted among 500 people with no migration background, as well as 300 Turkish and 200 Italian migrants. Questions were asked about attitudes toward language choices, perceptions of language use and about diversity in the community.

The focus of the project was on multilingualism as it zoomed in on the display of migrant languages and of English, even though it took place in a largely monolingual German context. The main research questions addressed how the diversity of languages reflects the diversity of the population, which functions are assigned to visual multilingualism (i.e. the linguistic landscape) in relation to different types of discourse (i.e. commercial or transgressive) and the perception and evaluation by minority and majority groups. Most of the project publications are thus far in German, and in one of the English language publications the authors focus on community as a concept (Ziegler *et al*., 2020). They explore the usefulness and limitations of the concept of community in relation to physical borders and the shared attitudes and values of its members.

Some interesting outcomes of the project are that by far most of the signs contain functional texts for trivial, everyday purposes, with 49% of the signs being commercial (e.g. shop names or advertising) and 39% 'transgressive' (e.g. tags or stickers) with simple content. In a word cloud map it could be shown that the graffiti and tags are rather heterogeneous and do not represent a specific community. In a subsample, the researchers found that community marking is mainly found in proper names, such as Italian and Turkish gastronomy names. The data included both monolingual German signs and signs in other languages. It was found that over half of all signs are monolingual German (50.9%), with a much smaller number in English (6.9%), including

proper names, abbreviations, German Anglicisms or short texts. Only 1.1% of signs were monolingual in non-Western European languages, for example, Turkish concentrated in specific neighborhoods. Ziegler *et al.* (2020: 188) remark that 'the visibility of signs in other languages or of multilingual signs in public places makes us aware that we otherwise swim in a sea of our own familiar linguistic signs'. When they looked into the choice of multilingual signs more deeply, it turned out that restaurant and shop owners often mentioned accommodation to customers, expressing ethnic identity or cosmopolitanism as reasons for their language choice. These functional and symbolic motives added up to some 85% of all responses. Ziegler *et al.* (2020) conclude that the respondents could do one of the following: ignore signs in languages other than German, accept them without any interest, see them as a colorful enrichment or welcome them as showing diversity, although the attitude depended on the individual's political convictions.

In another publication, Ziegler *et al.* (2019) reported on the results of the telephone interviews in greater detail. The researchers found that multilingualism on the signs was widely accepted and regarded as enriching by informants both with and without a migrant background. In terms of their political and social implications, the results seemed to support having more multilingual signs in the public space.

6.4 Our Investigations on Multilingualism in Donostia-San Sebastián

From the beginning, multilingualism has been a central theme of our own linguistic landscape work. We have used the multilingual urban décor of the city of Donostia-San Sebastián in the Basque Country for several empirical investigations, beginning in 2002 (Cenoz & Gorter, 2003) and our 'classic' article (Cenoz & Gorter, 2006). In most of our publications, we have focused on manifestations of multilingualism on signs in public spaces.

The public spaces of the city are a living laboratory of multilingualism and as such it is part of the workplace where we conduct our research regarding issues of multilingualism, minority languages, language policies, the role of English and pedagogical applications, as well as issues of identity and ideology, contact and conflict, power and protest.

This urban context resembles a laboratory because it offers opportunities for observation, practice and experimentation, and a basis for reporting our results. Through our studies, we have been able to demonstrate how the linguistic landscape of this specific urban context can provide interesting new knowledge about the diversity of languages and multilingual processes. The public space of our city functions as an

important source of data and through the analysis of our findings we can produce new understandings (see also Figure 1.4).

The way the languages are displayed is planned and the allocation of languages on signs is not coincidental or random. In this planned activity in which different actors and agencies play a role, each sign has meaning, some aesthetic value and the producer designed the sign with their potential reader in mind. In our case, there is an ongoing struggle for visibility between Basque as the minority language and Spanish as the dominant language, together with English as the global language, some French and several other languages. Our city, our neighborhoods and our streets are dynamic complexes that can be observed from different angles and with a different depth of field. Looking at the larger landscape as a whole or zooming in on one sign can tell a different story, provide important insights or present a piece of relevant knowledge. It is evident that the linguistic landscape of our city is deeply multilingual and this environment made our different research projects possible (Figure 6.4).

We could apply an economic perspective as part of a large European project on sustainability and diversity – SUSDIV (Cenoz & Gorter, 2009; Onofri *et al*., 2013; see Chapter 3). In our context, both policymakers and language activists want to give Basque a sustainable future and the presence of the minority language in the linguistic landscape is seen as contributing to its survival. Changes that give Basque a higher visibility can make the language more prestigious. Basque-only street signs have become part of the local language policy, including forms of blending Basque and Spanish that did not exist before (Aiestaran *et al*., 2010; Gorter *et al*., 2012b; see Chapter 8).

Figure 6.4 Basque-Spanish street signs with changes (before and after)

In our application of the notion of translanguaging (Gorter & Cenoz, 2015a; see Section 6.3), we examined in depth one shop front as part of its social context so that we could make clear how people navigate between languages. In one elaborate example, we looked at the façade of a bookshop and conceived of this view as a linguistic landscape. From this assemblage of interacting signs, we were able to show that a complex multilingual area was emerging. Looking at the façade led us to also look at the neighboring establishments in the same street and then consider the whole neighborhood. We observed two plaques, a hanging sign and the shopping windows of the bookshop. This façade presents passersby with an aggregate in which each sign contributes to the sum of language features. Multilingual readers can navigate without effort among these signs. They read such signs every day and for them it hardly matters if the signs are inside one frame or spatially separated into more frames. Perhaps monolinguals can read signs separately but multilinguals tend to see the whole and read all languages. Multilinguals make sense of their surroundings through translingual practices which include hybridization, or the blending or meshing of languages. Individual signs combine and mix languages to shape linguistic landscapes. Grouping together signs at the level of a neighborhood leads to public spaces, in which translanguaging goes beyond single signs and individual languages. As we observed, 'Here commercial interests are present, language policy and activism meet, history is always there, and the local and the global intermingle' (Gorter & Cenoz, 2015a: 70). Signage has to be understood as dynamic and interactive. The dynamics of a linguistic landscape is also demonstrated in diachronic ways. Experiencing and going across languages are influenced by changes over short times and others over long periods. Some signs are only momentarily visible or may disappear before one reads them, whereas other signs were put there long before and probably will remain, but all signs can potentially influence the language practices of their readers.

A large part of our research work besides linguistic landscapes is focused on multilingual education (Cenoz & Gorter, 2021). We applied some ideas to language learning from signs (Cenoz & Gorter, 2008), students' perceptions of linguistic landscapes (Cenoz & Gorter, 2011) and the functions of signs in multilingual schoolscapes (Gorter & Cenoz, 2015b). Our master's students were also involved (Gorter *et al.*, 2022; see Chapter 10). In recent years, we carried out a study of a local market (Gorter *et al.*, 2021, 2022) and we developed a holistic model for the study of linguistic landscapes (Gorter, 2021; Gorter & Cenoz, 2020; see Chapter 3). Obviously, all our studies revolve around the theme of multilingualism, but we have not dealt with all studies here because we mention them in the other chapters of this book. As we said before, our own work comes back in different chapters.

6.5 Concluding Remarks

As we pointed out in Chapter 1, and as we also saw in Chapters 3 and 4, the topics of the diversity of languages and multilingualism are addressed in many linguistic landscape studies. Thus, perhaps there is no need for a separate chapter on multilingualism because all chapters are permeated with issues related to this theme. Therefore, this chapter is limited in scope, revolving around some recent developments in the study of multilingualism in general, focusing on the concept of translanguaging and the categorization of multilingual signs.

As has become clear in this and the other chapters, in many parts of the world the study of multilingualism in combination with linguistic landscapes has developed strongly. Those studies have created new and relevant knowledge about multilingualism and have shown that multilingualism is one of the key dimensions of linguistic landscapes. We have presented examples of small and large projects in which more knowledge about multilingual phenomena was obtained through broad inventories or through in-depth analyses of the public display of multiple languages.

As said, multilingualism plays an important role in the following chapters. In Chapter 7, we look into the visibility of minority languages, including studies of communities struggling with the presence and visibility of their own language in competition with a dominating language. In Chapter 8, we discuss the development and implementation of language policies that regulate the use of different languages. In Chapter 9, we discuss the fact that English can be seen everywhere and we present numerous studies about the spread of English in different countries around the world, appearing in a hierarchy alongside other languages. Educational systems are addressed in Chapter 10 on the display of languages in schools and the application of linguistic landscape for pedagogical purposes. Names in public spaces are examined through various studies in Chapter 11. All of the topics dealt with in those chapters are in one way or another related to multilingualism. Finally, in Chapter 12, we suggest topics that could be further explored with one topic being 'super-multilingual signs'.

7 The Visibility of Minority Languages

7.1 Introduction

The guiding thought of the edited book on minority languages in the linguistic landscape was that 'being visible may be as important for minority languages as being heard' (Marten *et al.*, 2012a: 1). In the introduction to that book, questions were asked that are still relevant today, such as 'Does visibility of a language really help to sustain a language?' or 'Where is the presence of minority languages mainly symbolic or tokenistic?'. The contributing authors have tried to answer this type of question through their investigations, but as usual, no straightforward answers can be formulated to such questions. The way languages are displayed on signs points to the dynamic processes of language practices and the interplay of different levels of society. In the introduction to the book, it was suggested viewing the linguistic landscape as a lens through which to rethink topics that have a long tradition in research on minority languages, such as language maintenance and language shift, revitalization or language contact and conflict. In recent years, an increasing number of studies of linguistic landscapes have resulted in fresh insights for research into minority languages and we focus on those studies in this chapter. The display of minority languages is often part of efforts to revitalize and promote the languages, but those efforts can face significant challenges. In fact, the linguistic landscape can become an arena of contestation over the visibility of a minority language. Sometimes, the presence of minority languages on signs leads to forms of symbolic use, tokenism or commodification. Linguistic landscape studies are thus relevant for minority languages for many reasons. We have tried to incorporate these dynamic and cyclic processes in our multilingual inequality in public spaces (MIPS) model by emphasizing the inequality of languages in public spaces (see Chapter 3).

As we show in the following pages, linguistic landscape studies dealing with questions about minority languages or endangered languages are not only of interest to specialized researchers of minority languages *per se*. The reason is that essentially a minority dimension is noticeable in

all contexts where one or more languages are on display next to a dominant language, usually the official state language. Sometimes, it has been pointed out that while there are less than 200 established states in the world, there are thousands of different languages. Most states have only one official language, which implies that other languages are somehow minoritized, and further, it is estimated that at least over half of those languages are endangered (Moseley, 2010). Minority languages are sometimes explicitly denied access to public spaces, but there are also many places where minority languages are on display, at least to some degree.

In 2009, the colloquium on Linguistic Landscapes from a Minority Language Perspective was organized at the 12th International Conference on Minority Languages in Tartu, Estonia. The preparations of a proposal for an edited book started at this conference. At the time, only a handful of researchers were working on these issues. Most of them contributed a chapter to the book that appeared about three years later (Gorter *et al.*, 2012a). The focus of that book was mainly on the European context, but given the exponential growth of the field since then, interesting work from all continents has now been published. This makes it possible to present an international comparative research perspective in the following pages. In our first published study (Cenoz & Gorter, 2006), we also chose an international comparative approach, but we only compared two minority languages: Basque and Frisian. Here, we are more ambitious and we include 24 contexts, which makes the effort more complex. Through our selection, we want to show the possibilities of a comparative approach to provide a new perspective and a deeper understanding of the issues facing minority language groups in obtaining a visible presence in public spaces. The level of comparison cannot be very detailed because the publications of each situation are rather different. Not all the publications have similar indicators, but they still offer sufficient information to make a relevant comparison possible. It is also not possible to fully summarize each study and only a brief reading can be given of a selection of the many studies available.

In Section 7.2, we briefly offer an outline of research on minority languages in general and some developments that are relevant for work on linguistic landscapes. In Section 7.3, we focus on the core issue of visibility and we introduce a continuum with six levels. We follow this up in Section 7.4 with an international comparison of 24 contexts of minority languages with different levels of visibility. In Section 7.5, we discuss Chinatowns, where Chinese is displayed as a minority language, at least in the wider context. In Section 7.6, we discuss issues related to commodification and tokenism because those issues play an important role in the relationships between speakers of majority and minority languages. In Section 7.7, we sum up the reasons why linguistic landscape studies can offer an important additional perspective for minority language research in general. Our general aim is to illustrate how the lens of

linguistic landscape studies can contribute to a better understanding of issues related to minority languages.

7.2 Minority Language Research in General

Traditionally, research on minority languages has focused on language maintenance and language shift. Studies cover topics such as language legislation, language policy and planning, revitalization or documentation, or reversing language shift. Usually, the focus is on the position or the use of minority languages in domains such as education, culture, media or transmission in the family. The research can also be framed in the familiar discourse about center as opposed to periphery relations. Pietikäinen *et al.* (2016: 27) summarized center in contrast to periphery as two opposing clusters of ideologies. On the one hand, ideologies that comprise 'center + affluence + authority + dynamism + development' as opposed to, on the other hand, ideologies that combine 'periphery + poverty + dependency + tradition + conservatism'. The keywords frame how majority languages are generally perceived in contrast to minority languages, even though in many cases not all keywords fit equally well.

One can observe that research approaches to minority languages are changing under the influence of processes of globalization and mobility, and minority languages have more recently been approached from various new perspectives. Today, researchers are looking into ways in which minority language speakers are adjusting to rapidly changing societies and adapting their language use practices to dynamic circumstances. In order to better understand language maintenance and shift within broader frameworks of multilingualism and language diversity, minority language research today considers the more fluid nature of language communities. This includes multiple identities, 'new speakers', social media or online environments, contexts of mobility, migration and diaspora and, in our case, the public display of minority languages. In the past, studies of minority languages gave little attention to linguistic landscapes, but today a great many studies have been carried out, and we focus on their presence and visibility in public spaces.

The concept of *minority* in itself is problematic and controversial among academics, policymakers and minority activists. Sometimes, the term *minority* is seen as inadequate and it should be replaced by *minoritized* to emphasize the active process involved in making a group into a minority. Other alternative designations are *lesser used language*, *small language* or in French *langue moins repandue* ('less widespread'). We will stick with the most frequently used term minority. Many definitions of minority language or minority as a group have been proposed, most of which overlap to some extent. The diversity and complexity of situations in which minority languages exist make it difficult to arrive at one

generally accepted definition. Ultimately, the consideration of a language as a minority language depends on who decides on the definition and who benefits from minority rights and support.

One widely used definition for ‘regional or minority languages’ can be found in the European Charter for Regional or Minority Languages (Council of Europe, 1998). The text refers to minority languages as

> languages that are traditionally used within a given territory of a State by nationals of that State who form a group numerically smaller than the rest of the State’s population; and different from the official language(s) of that State; it does not include either dialects of the official language(s) of the State or the languages of migrants.

This definition has gained some acceptance over the years. The definition, however, clearly shows the decisive role of the nation state in determining which language varieties obtain minority rights and protection (the word ‘state’ is mentioned five times). According to this definition, the answer to the question ‘Does a variety have recognition as a language?’ depends predominantly on political decisions made by a state, not a European body such as the Council of Europe or the European Union nor the local community of its speakers. Moreover, a state may fear that the recognition of a minority language can result in giving rights to their speakers and that this in turn will have economic consequences. International law does not stipulate precisely what constitutes a minority and in many cases the choice of a state is not based on objective criteria, but on political, historical or subjective criteria. In general, the concept ‘minority’ does not designate a homogeneous sociocultural group but rather a heterogeneous category of self and other identification (Jackson-Preece, 2014).

Frequently, the concept of minority language is interpreted by non-experts in terms of the relative numbers of speakers. Thus, Banda and Jimaima (2017) discussed the problems of defining a minority language as used by less than 50% of the population. That would make English a minority language in Zambia and many other countries while it dominates in various sectors of society. Just going by the percentages or the numbers is too simplistic. Minority languages include communities with several millions of speakers and a relatively strongly supported social status such as Catalan. At the other end of the spectrum, there are small severely endangered local varieties with no more than a few hundred speakers or even less, for instance, Inari Sámi in Northern Finland.

Counting the number of speakers of a language may seem a straightforward exercise, but it is in fact a complex issue. The outcome can vary depending on the aim of the counting (e.g. for a census or for political reasons), the criteria for who counts as a speaker (e.g. mother tongue,

home language, daily used language or proficiency), who does the counting (e.g. a government, a research project or an activist organization) and what counts as a language (Fishman, 1991: 45–46; Gal, 2018: 224–225). Although it is challenging to count languages and speakers, Pan (2008: 14) presents a list of 91 different languages in Europe and he provides the number of speakers for each language (Figure 7.1). Still, it would be difficult to reach agreement on the establishment of a definite list of minority languages and their number of speakers. First, there can easily be disagreement about which linguistic varieties should be included as separate or named languages in such a list and, second, establishing the number of speakers of each language is obviously even more challenging. Furthermore, there are disputed varieties in terms of their status as a separate language, such as Latgalian in Latvia which is considered by officials as a historical part of Latvian, or varieties which are mostly considered to be dialects such as Lombardian varieties in Northern Italy. A great number of languages are dying out and receive no or minimal supporting measures or are actively suppressed. Between these two extremes of official recognition and active suppression, there is a range of possibilities, but almost all minority languages fall in the categories of 'vulnerable' or 'endangered' (Moseley, 2010). Huge differences exist among minority languages, not only in official recognition, degree of policy support or the numbers of speakers but also in social status, amount or intensity of teaching in schools or use in other spheres of social life and, of course, in their presence and visibility in linguistic landscapes. Banda and Jimaima (2017: 3) remark that 'what constitutes a minority and a major language in multilingual context differs in space and time, and may involve consideration of historical, political and socioeconomic reasons'.

Figure 7.1 Wooden mural with 91 languages in Europe, plus legend with language names

Notwithstanding the difficulties of definition, categorization, counting or context, the concept of minority is important as a term of international law and for international organizations like the European Union and the United Nations. Language activists and non-governmental organizations (NGOs) turn to those international bodies or to individual states to claim rights and support for their own minority language community because they are aware of the need for additional resources for their survival, revival or normal everyday use in society.

In a European context, one major distinction can be made between, on the one hand, 'regional' minority languages (alternatively designated as 'autochthonous', 'traditional', 'historical', 'indigenous' or 'old' languages) and, on the other hand, 'migrant' minority languages (also referred to as 'allochthonous' or 'new' languages) (Extra & Gorter, 2008). Regional minority languages as a concept refers primarily to minorities of speakers that arose during state formation a few centuries ago or because of migration of population groups in the distant past. Among regional minority languages, a further distinction can be made between 'unique' minority languages, that is, languages that exist only as a minority language, such as Basque, Breton, Frisian, Irish, Sámi and Welsh, and 'local only' (or 'transfrontier') minority languages, which are the majority language in another, usually neighboring state. Some examples of the latter are German, which is spoken by communities in Belgium, Denmark and Italy or Danish spoken in Germany.

Minority languages spoken by migrants are the result of more recent migration, a process which in Western Europe dates mainly from the 1960s. In more recent years, due to an influx of migrants, refugees, expatriates and other mobile people, over 100 different home languages can be found in most European states, particularly in urban areas. Superdiversity is the concept usually applied to refer to this phenomenon and to related demographic changes which have increased diversity (Vertovec, 2007).

The difference between a regional and a migrant minority language can be gradual or fluid, to some degree arbitrary and cannot always be easily applied. This can be illustrated by Finnish as a minority language in Sweden, where some communities of Finnish speakers settled centuries ago and others are more recent arrivals. While some regional minority languages have obtained official recognition and a degree of legal protection, many are lacking such protections and immigrant minority languages are hardly if ever subjected to positive legal measures (Darquennes, 2013; Extra & Gorter, 2008). An obvious major difference is that most 'unique' minority languages are struggling for their survival and many are at risk of disappearing, while migrant languages such as Arabic and Turkish would survive in the country of origin even if they were no longer spoken by migrants. The distinctions above are, to a large degree, based on the European context and although they have some

applicability further afield, other terms may be more relevant in other contexts, such as indigenous, endangered, heritage or non-dominant languages.

7.3 Public Presence and Visibility as a Key Factor for Minority Languages

This chapter primarily focuses on the ways in which minority languages are visible in public spaces. As we know by now, written signs in the public space can mark the presence of specific language groups in a territory. However, not all language groups have equal access to representation in linguistic landscapes. Official state languages commonly have an all-round presence in public spaces and their presence and visibility are taken for granted, whereas for minority languages often an extra effort has to be made. In Chapter 9, we demonstrate how English is a language that exerts power over majority state languages and minority languages. At the same time, official state languages tend to swallow up weaker minority languages unless they are protected by legal measures and are economically supported. A research study that includes an inventory of signage in a specific context can describe the degree of presence of a minority language and this can be compared to the dominant state language and other languages. In this way, quantitative studies are able to provide illuminating data about the distribution of specific languages on signs in public spaces, which may include different genres, finer distinctions, language combinations on bilingual or multilingual signs, multimodal and material aspects, and inequalities in the spread over a geographic area. Qualitative or ethnographic studies can look into the specific uses of minority languages in their social and historical context and link the signage to its producers and people who are seeing the signs. The results of both types of studies could be meaningful for the speakers of those languages, for other stakeholders and for researchers.

Several reasons can be given to explain the degree of visibility of a minority language, for instance, supportive or discriminatory policies, the ethnolinguistic vitality of a community or the degree of literacy of the targeted population. Visibility can function as an index of spread, shift or maintenance, vitality or status of a language. In the past, the visibility of minority languages did not draw much interest in research on minority languages in general, and linguistic landscape studies have added a new perspective. Edwards (2010) included the factor of visibility of a language as indispensable, or a 'domain of necessity' as part of revitalization research and the documentation of minority languages. The display of the language of a minority community in public spaces is now seen as an important indicator for the support and survival of a minority language and often it is thought that those languages cannot exist without having a substantial presence in public spaces.

Language activists regularly demand public visibility of minority languages. An example is the provision in the Universal Declaration of Linguistic Rights (1996), a private initiative of PEN International, the worldwide association of writers. The declaration states 'All language communities have the right for their language to occupy a pre-eminent place in advertising, signs, external signposting, and in the image of the country as a whole (article 50.1)' (Pen International, 1996). Recently, an addendum to the declaration was launched in the format of the Protocol to Ensure Language Rights. This text states explicitly that 'signage and business information is also available in the minoritized language' (Protocol, 2016: 24) and the document includes further provisions for advertising in private media and the use of signage by administrative institutions. Other international instruments like the European Charter for Regional or Minority Languages or the Framework Convention for the Protection of National Minorities (both by the Council of Europe) do not include any specific provisions or measures for the linguistic landscape, except for some provisions about the use of place names and proper names in the minority language.

Based on our own work on Basque in the Basque Country and Frisian in Friesland, we concluded that these two minority languages need to be visible in order to secure a more sustainable future (Gorter *et al.*, 2012b). Of course, the same goes for all other minority language groups that are struggling for survival. Barni and Bagna (2010) have addressed the relationship between the vitality and the visibility of migrant minority languages in Italy. After examining the quantitative presence of four migrant languages (Chinese, Romanian, Russian and Ukrainian) in six Italian cities, they concluded that 'there is no direct relationship between the presence of a language in an area, its vitality and its visibility' (Barni & Bagna, 2010: 15). Their reasoning was that there are too many other factors involved, such as legal, political, economic, cultural and attitudinal factors that can determine whether a language will become visible in the linguistic landscape. Their argument that a complex of factors influences visibility seems applicable to other contexts as well. However, there is often a correlation between public visibility and the vitality of a language group, but no causal relationship. After all, the public presence of minority languages can raise the awareness of its speakers, who often perceive links between their language, their traditional areas of settlement and their identity as a distinct group. Visibility may also have effects on the language attitudes of speakers and on their self confidence in the fight for the recognition and use of their language. As Jaffe and Oliva (2013: 101) argue 'Signs can counteract the historical exclusion of minority languages from public space by making them visible'. However, being visible in public spaces does not by itself lead to more support for a minority language by public authorities in other domains such as education or the media. Simultaneously, the public visibility of a minority

language shows to the majority language speakers that another linguistic group exists in a given territory, and this can lead to understanding and respect. Nevertheless, this visibility does not make speakers of a minority language automatically more respected in the perception of majority language speakers (Marten & Saagpakk, 2019). Studying a linguistic landscape can provide indicators for attitudes or ideologies that are underlying a language policy, or how the population reacts positively or negatively to the policy.

Covert prestige may be another factor to consider. In his observations of the street name signs in Toulouse, a city in the south of France, Amos (2017) could see that Occitan, the regional language, had covert prestige. On bilingual French–Occitan street name signs, French was positioned above and Occitan below, but the regional language provided more information. On the signs the hegemony of French is clear, but mechanisms of translation and added information suggest a preference for Occitan, which shows its prestige hidden in plain sight. Obviously, making a minority language visible in the linguistic landscape can also become an arena of contestation. Often, the core issue is not how much a language is used in the linguistic landscape, but why it is telling that a language is not used at all.

In addition to visibility, it may be important to consider the salience of a language as a separate factor, that is, in terms of the prominence of a language in the totality of a sign or in the way the language is displayed. For salience, it is crucial to look at aspects such as font size, color, contrast, lay out and placement. In Chapter 6 on multilingualism, we already discussed the principles of composition in which the placement of elements, viewer's attention and dividing lines are considered (Kress & Van Leeuwen, 1996). Salience is further related to the code preference system as discussed by Scollon and Scollon (2003), in which the hierarchy of languages is determined by font size and spatial relationships such as location on the top or bottom, in the center and left or right (depending on the writing direction).

Areas of special interest for the relationship between linguistic landscapes and minority language are life spheres such as the media, culture and religion. For example, a newspaper or a TV station may have a policy to increase the visibility of a minority language. Cultural institutions such as museums, public libraries and theaters can be places where minority languages are put on display in order to increase awareness. In contrast, it is notable when such institutions do not give any place to the minority language and only use the majority language, a circumstance that could signify that the use of the minority language is disregarded or looked down upon.

Today, the visibility of a minority language in the online linguistic landscape is, of course, strongly related to its presence in physical public spaces. Linguistic landscape studies have linked offline and online

spaces (Blommaert & Maly, 2019). Similar issues that exist for physical linguistic landscapes apply to the presence of a minority language on the websites of governments, educational institutions, private companies and on private websites.

As we said, having a presence and being visible in public spaces is without doubt a crucial, almost existential issue for minority languages. There is a great deal of variation between contexts, which is related to language policy and underlying language ideologies. To be able to show some of the degrees of variation, we have developed a scale for which we have identified six categories (see Table 7.1). The continuum can help us to understand the different degrees of presence and visibility of minority languages and how those are related to language policies and ideologies.

At one end, we find an all-round presence and visibility of a language. This usually only applies to majority or dominant languages supported by an official state language policy and an ideology in which the language is taken for granted. The second category can be found in situations where there is full-fledged governmental support for a language through robust language policies and backed by positive language ideologies, leading to frequent visibility for the minority language. In the third category, a language may be officially recognized and receive some policy support and endorsement in language ideology, but still the language obtains only a medium level of visibility due to various limiting factors. In other cases, in the fourth category, there is only limited policy support from the authorities and/or there are negative attitudes among its speakers, which then lead to a low degree of visibility. As a fifth category, we distinguish cases where there is token attention for the minority language by the authorities or where its presence is disputed in the community and, as a consequence, the display of the language may be rare or occasional. The end of the continuum represents cases where the minority language is almost or completely absent, and the language appears on few or no signs at all.

The points on this scale indicate the degree of presence, which is labeled in a range from always, frequent, medium, limited, occasional,

Table 7.1 Continuum of the presence and visibility of minority languages in linguistic landscapes

Policy/ideology	Presence/visibility
(1) Prescribed or taken for granted	(Almost) always
(2) (Co-)official or fully supported	Frequent
(3) Recognized or encouraged	Medium
(4) Approved or permitted	Limited
(5) Disregarded or disputed	Occasional
(6) Prohibited or excluded	Minimal or none

to minimal or none. The different points on the scale are not meant to be precise, but indicative. It is difficult to place a minority language at one point on this scale because there can be large differences inside a community or over different contexts. The intention is not that these are fixed labels, but that it is more like a sliding scale; the categories are mainly used here for comparative purposes and for organizing the presentation of the results of various studies.

We see the scale as useful for diagnosing the relative visibility of a minority language compared to other languages. Its vertical organization includes the idea of some sort of hierarchy of degree of visibility between languages. At the same time, we do not suggest that there is a linear progression or that these categories have rigid boundaries. On the contrary, the boundaries are fluid and dynamic and we acknowledge variation encountered socially, geographically and over time inside the various minority language groups. In our comparisons below, we discuss various cases and we try to place the different minority languages on this continuum.

7.4 A Comparison of the Presence and Visibility of Minority Languages

In the next section, we present the outcomes of a large number of studies on the presence and visibility of various minority languages in different countries around the world. It is almost unavoidable that our discussion of minority languages in linguistic landscape studies is tilted toward cases in Europe because thus far a substantial number of the research studies have taken place in the Global North, although there has recently been a shift toward more studies taking place in the Global South (Shohamy & Pennycook, 2022). An additional reason is that Europe is the context in which we have worked most and, for example, the book we co-edited on minority languages and linguistic landscape included 13 case studies originating in Europe, and 2 outside (Israel and Brunei) (Gorter *et al.*, 2012a). At the time when that book was written, as we said before, there were few studies on minority languages and linguistic landscapes, whereas today there is an adequate amount. For that reason, we had to be somewhat selective, so we discuss publications about 24 contexts (12 from Europe and 12 from the rest of the world) and we group them according to the continuum we presented above, placing four or five languages in each category. First, we present a table that mentions the 24 cases and then discuss the cases one by one (see Table 7.2). For some languages there is only one study, while for others there are several studies. We are aware of a certain degree of arbitrariness in our categorizations and for that reason we place the languages in alphabetical order inside each group. For each category, we briefly compare the similarities and differences between the cases and at the end of this section we make some general comparative observations.

Table 7.2 Selected minority languages placed on the continuum of presence and visibility on public signage

Policy/ideology	Presence/visibility	Examples
Prescribed or taken for granted	(almost) Always	Majority/dominant languages German (Belgium)
(Co-)official or strongly supported	Frequent	Basque Catalan Tigrinya West Greenlandic Yi
Recognized or encouraged	Medium	Arabic (Israel) Galician Irish Marshallese
Approved or permitted	Limited	Frisian Gedeo Tagalog Sámi languages Slovenian (Italy)
Disregarded or disputed	Occasional	Breton Inuit languages Santali Sorbian
Excluded or prohibited	Minimal or none	Bhojpuri and Magahi Islander Creole Kichwa Latgalian Māori

The first category of (almost) always present and strong visibility concerns basically only majority or dominant languages. Those languages are often legally prescribed on signage or they are taken for granted. We briefly discuss the case of German in Belgium as a cross-border minority language that has a very strong representation in the linguistic landscape of the area where it is spoken.

(Almost) always present

Majority languages	German (Belgium)

German (in Belgium)

The German-speaking community lives in the eastern part of Belgium. German is recognized as one of the three official languages of Belgium, but given the small size of the community (78,000 inhabitants) and its functions in society, it has to be considered a cross-border minority language. Van Mensel and Darquennes (2012) investigated official and non-official regulations for German on signs, the correlation of the linguistic landscape with actual language behavior, and whether the linguistic landscape could reveal ongoing language conflict in the region. Their results show that pragmatic attitudes prevailed among the population and that conflicts over language issues were rare. The locals perceived

the German-speaking community as stable and uneventful. This was reflected in the title of their chapter All is Quiet on the Eastern Front. Of course, they could not anticipate that for a short time in the autumn of 2014 and spring of 2015, a conflict would arise over the language used on billboards placed along the main motorways coming from Germany. The signs were painted over because the word 'Walloon region' was used instead of 'German community' in combination with the word 'Welcome' in four languages.

In a small-scale study, Davidson (2019) compared two cities located in the German community (Eupen and Sankt Vith) and she found the presence of German on 80% of all signs ($n = 105$). Her interviews demonstrated that the local population was open to the presence of other languages and preferred bilingual German–French signs. Overall, her results confirmed the conclusions of the study by Van Mensel and Darquennes that linguistic conflict is not visible in the linguistic landscape (Davidson, 2019: 114).

The second category contains languages that have a high frequency of presence in the linguistic landscapes of the areas where they are spoken, commonly because of official recognition and strong language policy support. It implies high visibility as well. We discuss the cases of Basque and Catalan in Spain and France, Tigrinya in Ethiopia, West-Greenlandic in Greenland and Yi in China.

Frequently present and visible

Basque	Catalan	Tigrinya	West Greenlandic	Yi

Basque

Promoting Basque in the linguistic landscape is an important part of language promotion efforts all over the Basque Country, although it is stronger in the Basque Autonomous Community than in the Community of Navarre or in the Northern Basque Country in France. The minority language can be seen in many places; it has a high presence on its own, but it is more often seen on bilingual signs next to Spanish (or French) and in multilingual combinations with English or other languages. Of course, the situation in the Basque Country is rather complex because there are substantial differences in its territory which is partly in Spain and partly in France, as well as between public and private sectors of society.

Our by now classic study (Cenoz & Gorter, 2006) confirmed a substantial presence of the minority language Basque in the linguistic landscape of Donostia-San Sebastián, where it is in competition with the dominant language Spanish, an increasing presence of English and some other languages (see also Aiestaran *et al.*, 2010). A recent investigation of a local market cum shopping mall in the same city confirmed our earlier findings (Gorter *et al.*, 2022). Throughout this book, we present examples and excerpts of the various studies we have carried out in this multilingual context.

Studies by other researchers in the Basque Country have reported similar findings. For example, Leizaola and Egaña (2007, 2012) studied the signs along two main roads from Donostia-San Sebastián to the city of Bayonne, in the Northern Basque Country. They found the international border to be a clear marker due to a much higher density of signs on the French side. Overall, French was dominant and had the greatest visibility, one reason being that names of cities like Bordeaux were given in the French version on the Spanish side, but San Sebastián was rendered in French as Saint Sébastien on the French side. Basque came in second place, mainly due to its frequent use on bilingual signs on the French side. In her comparison of the linguistic landscape of three towns in the Basque Country, Catalonia and Galicia, Dunlevy (2020) included the Basque town of Laudio (18,000 inhabitants) and found 20% Basque-only signs, 33% Spanish only, 34% bilingual signs and 13% ambiguous or with other languages included (n = 1,427). Her study of the three towns confirmed that Basque and Catalan (see next section) both had a frequent presence, whereas Galician was less visible. Other examples on Basque are presented by Järlehed (2019), who looked into the playful use of Basque on T-shirts and Järlehed (2020) when he studied names in Basque (and Galician) and found representations of the languages in different genres such as the name for the region or city logos. Overall, we can place Basque on the continuum as frequently present and visible on a level just below majority or dominant state languages.

Catalan

The situation of Catalan is rather complicated because the language is spoken in the four regional administrations of Catalonia, Valencia and the Balearic Islands in Spain and the Département Pyrénées-Orientales, or North Catalonia, in France, as well as in the town of Alghero on the island of Sardinia in Italy. Taking all Catalan-speaking areas into consideration, the situation is diffuse and not governed by the same regulations. Many studies have been carried out and the description for Catalan is therefore somewhat more elaborate.

In general, in the Autonomous Community of Catalonia, of which Barcelona is the capital, the presence of Catalan in the linguistic landscape is very strong because there is a legal obligation for Catalan to be present on signs. If we only considered Catalonia, the language could also be placed in the category of '(almost) always' present and visible. In the 1990s there were a number of basic counting studies on the presence of Catalan and Spanish in Barcelona and some other cities (see Chapter 2). The variation in the display of Catalan, Spanish and English between different neighborhoods in Barcelona was illustrated by Comajoan Colomé and Long (2012) in a predominantly quantitative study of three streets in three demographically and sociolinguistically different neighborhoods of Barcelona. In the old part, *Ciutat Vella*, less than half of the inhabitants

were born in Catalonia, whereas those numbers were higher in the other two neighborhoods and, accordingly, knowledge of Catalan was also higher. Based on a sample of almost 700 photographs, they found on average around 60% monolingual signs, 35% bilingual signs and 5% signs with more than two languages. However, even though according to the law Catalan needs to have a presence in all signage directed at the public at large, they found a substantial presence of monolingual Spanish signs that varied from 25% in one street to 46% in another, which for them shows that 'the law is not closely followed' (Comajoan Colomé & Long, 2012: 194). They also observed a trend in favor of Spanish in predominance (in numerical terms) and saliency (of the main sign). The street with the highest number of Catalan speakers also had the highest number of signs in Catalan. The percentage of Catalan found was, however, lower than in previous studies. The authors relate this outcome to the important demographic changes the city of Barcelona has undergone with the arrival of many immigrants from the rest of Spain and from abroad after the year 2000. At the same time, they found few signs in English only and at most around 6% combined with Catalan or Spanish.

In one central shopping street in Barcelona, Comajoan Colomé (2013) found Catalan to be most salient in shop names (44%; n = 120), followed by ambivalent signs (28%) due to the use of brand names or names that could be both Catalan and Spanish. Dunlevy (2020) included the Catalan town of Balaguer (17,000 inhabitants) and observed 75% Catalan-only signs, 11% Spanish only, 2% bilingual signs and 12% ambiguous or with other languages included (n = 1,092). In this study, Catalan was obviously dominant in the public space. Recently, Jódar-Sánchez (2021) carried out a quantitative study of the linguistic landscape of the old part of Barcelona where he investigated the impact of the language law on the signage in three neighborhoods. The sample (n = 456) consisted of the main signs of stores (similar to Comajoan Colomé, 2013). On those store signs, he found that more than 80% were monolingual, where Catalan was predominant with around 40% on average in the three neighborhoods, followed by around 20% Spanish and another 20% English or another language. The remaining 20% bilingual or multilingual signs were half in Catalan–Spanish while the other half had other combinations of Catalan, Spanish, English and other languages. In the neighborhood of Raval, he found monolingual Catalan signage to be predominant (53%), followed by monolingual signage in non-official languages (21%) and in Spanish (14%), demonstrating a lack of strict enforcement of the legal obligation to display Catalan. The gap between the languages on display, the requirements of the language law and the diversity of the languages spoken by the inhabitants was strongest in Raval, the most ethnically diverse neighborhood. For that reason, Jodar Sanchez argues for a waiver to comply with the language law to more faithfully reflect the diverse linguistic reality of the neighborhood (Figure 7.2).

Figure 7.2 Shop sign in Raval neighborhood, Barcelona

In the Autonomous Community of Valencia, Lado (2011) found a strong presence of Spanish especially in bottom-up signs, where there is no legal obligation to display Catalan. In contrast, the presence of Catalan (Valencian) was much stronger in top-down signs placed by the city governments of Gandía and Valencia. In the town of Elche, in the south of the Valencian community, Martínez Ibarra (2021) found a slightly higher presence of Spanish than Catalan on private commercial signs. The interviewed sign owners clarified that they had made conscious choices and they did not want to change the language. The results of Lado (2011) and Martínez Ibarra (2021) are similar to those obtained by Bellés-Calvera (2019) who counted languages in the regional capital Valencia and two other towns (n = 185 signs). The town with a substantial number of migrants was the one that displayed more language diversity and had the highest percentage of Catalan on top-down signs.

In the Community of the Balearic Islands, in a tourist resort in Mallorca, Bruyèl-Olmedo and Juan-Garau (2009) presented a different outcome. They found more English, Spanish and German than Catalan, even though Catalan is a co-official language, but not obligatory. In an

extension of the study to a second tourist area, the same researchers found similar, but slightly different results where Catalan came in third place, just before German, although it had a prominent position in official top-down signage. Looking more specifically at Catalan as a minority language, Bruyèl-Olmedo and Juan-Garau (2015) asked the research question 'What visibility does Catalan have?' and they discussed this question from the angles of code preference, authorship and multilingualism. They conclude that Catalan is treated differently by public and private actors, but overall has 'scant visibility'.

In studies in North Catalonia in France, Blackwood and Tufi (2015) and Kailuweit (2019) showed the low frequency of Catalan on signs. If we only considered that area in France, Catalan would be categorized as having a limited presence or even less. A comparison between the Spanish and French sides of the border in the towns of Girona and Perpignan was made by Lipovsky (2019b). She focused on the post offices, train stations and tourist sites to contrast state-level with regional or municipal policies. In the top-down signs in Girona, Catalan had a strong presence due to the legal obligation to use it. In multilingual signage for tourists, Catalan stood out as more salient through layout and bold lettering. At the same time, Spanish had a strong presence in informative signs, in particular, those of national agencies such as the post office. In contrast, on the French side in Perpignan monolingual signs were in French, and in multilingual signage French was more salient through layout and lettering. The municipal authorities used Catalan in particular in top-down signs related to tourism, thus creating a form of commodification of the language.

Taken together, the four administrative areas show substantial differences related to prevailing language policies, legal obligations and ideologies. Overall, we categorize Catalan as frequently present and visible.

Tigrinya

In the 1990s, several regional languages in Ethiopia were officially recognized and this increased their use in education, in the media and in government documents, at least for a number of them. This recognition also gave a public presence and visibility to some minority languages that had not been publicly displayed before, but others remained invisible. Lanza and Woldemariam (2009) were among the first researchers to study the linguistic landscape in Ethiopia. In Mekele, the capital city of the Tigray region in the north, they studied the language ideologies surrounding the regional language Tigrinya. In the quantitative part of their study they showed that the official language of the region, Tigrinya, had obtained a relatively high presence on monolingual (14%), bilingual (32%) and a few trilingual signs (1%), compared with bilingual Amharic–English (35%), Amharic-only (8%) and English-only (10%) signs (n = 376). However, minority languages in the same region, such

as Agaw, Iron and Kunama, were absent in the linguistic landscape. In a later study, Lanza and Woldemariam (2014a) showed the presence of Tigrinya to be growing, although Amharic and English were still widely used. They further demonstrated how Amharic has influenced the minority language at the grammatical level. In the neighboring state of Eritrea, the most widely spoken language is Tigrinya and it is one of three official languages, next to Arabic and English. In Asmara, the capital of Eritrea, Kroon (2021) found that the majority of public signs were trilingual in Tigrinya, Arabic and English.

West Greenlandic

The case of West Greenlandic is interesting because it can demonstrate how a (former) minority language has obtained considerable visibility in a predominantly trilingual environment. West Greenlandic is the only official language in Greenland, in the far North. This status was accorded when Greenland obtained self-rule from Denmark in 2009. A language law prescribes the use of West Greenlandic in signs and advertisements, with additional languages being allowed. Valijärvi and Kahn (2020) analyzed signage in Nuuk, the capital, where they compared the centrality of the indigenous language to Danish, the former colonial language and to English as the global language. West Greenlandic has obtained substantial visibility, even though Danish is still widely visible on bilingual signs, usually for information purposes. English is used in a similar way as elsewhere, fulfilling functions such as modernity, tourism, luxury and high status (see Chapter 9).

Yi

The majority of Yi minority language speakers live in the Liangshan Yi region, China. The Yi is the sixth largest ethnic minority group in China with over 8 million members and a majority of those speak the Yi language (of which Nuosu is the prestige variant). Both the Han language (Chinese Mandarin) and Yi are official languages in the region and since 2009 the use of Yi on signage has been obligatory, alongside Chinese. Yao *et al.* (2020) specifically focused on the use of this minority language in the linguistic landscape. Based on a quantitative study in four towns (n = 1,497 signs), the authors found that bilingual Yi–Chinese signs predominate in two rural towns that have a population of over 90% Yi people. In the regional capital with a mixed population, the Yi language also had a high visibility due to a strong language policy. In contrast, in the fourth town, which is a fast-growing economic center with a predominantly Han population, there was a great deal more monolingual Chinese signage. The authors expect a further increase in the display of Yi due to changing attitudes caused by the high presence of Yi.

The five languages, Basque, Catalan, Tigrinya, West Greenlandic and Yi represent the strong side of our continuum with a relatively frequent

presence. There are some striking similarities between these cases. All the studies reported an overall high visibility of the minority language of around 50% or more, which in some contexts even surpassed the majority language. The studies further mention geographic differences with a greater or lesser presence of the minority language, for example, the contrast between different tourist areas, between local neighborhoods or between different autonomous communities (for Catalan) or rural towns versus an economic center (Yi), or along the motorways in France and Spain (Basque). In all cases, even if the minority language has a strong presence, its visibility in the public space is not taken for granted in the same way as is the presence of the majority language with which it is competing. The studies provide us with additional insights into the struggle for sustainability of these relatively strong languages.

In the third category, we distinguish minority languages that are officially recognized and how their use can be encouraged in public domains. However, based on the outcomes of the studies, we classify their presence on the signage as medium. We discuss the cases of Arabic as a minority language in Israel, Galician in Spain, Irish in Ireland and Marshallese in the Marshall Islands.

Medium presence

Arabic (Israel)	Galician	Irish	Marshallese

Arabic (in Israel)

Arabic was an official language in Israel until 2018, today it has a special status which mandates its use by the government and socially it can best be characterized as a minority language. This was confirmed through the early study by Spolsky and Cooper (1991) and the classic study by Ben-Rafael *et al.* (2006). Those studies already showed that Arabic held a relatively marginal position. The study of Ben-Rafael *et al.* (2006) revealed that even in the Palestinian localities they investigated, Hebrew had a stronger presence than Arabic. Trumper-Hecht (2009) showed how several legal battles were fought regarding the status and use of Arabic, in her case on the signs in one so-called mixed city. In a follow-up in three mixed cities, Trumper-Hecht (2010) examined how the roles of Arabic and Hebrew in the linguistic landscapes were perceived by the inhabitants. She found contrasting and conflicting perceptions, preferences and attitudes among Arabic and Jewish inhabitants, groups that live rather separately in the same city.

The position of Arabic as a minority language in Israel was the specific focus of Shohamy and Abu Ghazaleh-Mahajneh (2012) who investigated two contrasting public spaces: on the one hand, the city of Ume El Pahem where Arabic is vital, visible and not functioning as a minority language and, on the other hand, the University of Haifa, where Arabic

is almost non-existent. Through quantitative signage data and interviews with Arabic students the unequal representation of Arabic in different spaces could be confirmed. The authors emphasize that minority and majority are relative concepts that are politically determined (see also Banda and Jimaima [2017] quoted above).

Amara (2015, 2018a) studied commercial signage in six Palestinian Arab localities with a focus on Arabic. Although his studies show similarities with Ben-Rafael *et al.* (2006), he disclosed important differences. In particular, he noted that Arabic was more visible as the first language on signs, but Hebrew had greater visibility as a second language. He found a strong visibility and presence of both Arabic and Hebrew in the linguistic landscape of these Palestinian towns, with English coming in third place. In his 2018 study, Amara revealed two types of linguistic landscape. First, in central shopping areas, Arabic was competing with Hebrew, which was the prevalent language because of its relation to ideologies of modernity and globalization. As a second type there are linguistic landscapes related to the inner lives of Palestinians and there Arabic was the most prominent language.

Through his comprehensive, book-length analysis of Arabic as a minority language in Israel, Amara (2018a) concludes that Arabic does not pose a threat to Hebrew in Israel. Even though it has some visibility, Arabic lacks a high status and Palestinian Arabs are a marginalized minority in all public spheres.

Galician

Galician is spoken by a majority of the population in the autonomous region of Galicia in Spain, where it is recognized as an official language alongside Spanish. The regional government promotes Galician, but the state laws urge bilingual signage. Dunlevy (2012) compared the linguistic landscape in the main square of the city of A Coruña (430,000 inhabitants) with the rural town of Cee (7,500 inhabitants). She found a strong contrast in the visibility of Galician between the urban and rural contexts. In the city, Castilian (Spanish) had a much stronger visibility than Galician, whereas in the small town, Galician was dominant on official signs, but about equally as visible as Spanish on commercial signs. In a more recent study, Dunlevy (2020) compared three towns in the Basque Country, Catalonia and Galicia, as we mentioned before in the sections on Basque and Catalan. In the town of O Barco de Valdeorras (13,000 inhabitants), she found that Spanish-only signs were highly visible (47% of all signs), 4% of signs were bilingual, 32% in Galician only and 17% were ambiguous or with other languages (n = 1,292). In three towns in Galicia, Järlehed (2017) analyzed the characteristics of street name signs, such as placement, size, colors, typography, other elements and linguistic content and codes. He found street signs were mostly monolingual in Galician with

the aim of expressing local or regional identity (see also Chapter 11 on names; see Järlehed [2015] for choices in typography).

Irish

Irish is an interesting case because it is the first official language of Ireland and its status is thus comparable to West Greenlandic. However, in the daily life of its inhabitants, Irish functions by and large as a minority language. The display of Irish in public spaces has been studied by different authors in various ways. On the one hand, Irish has a strong presence in public spaces because all road signs and place names are bilingual, with Irish on top (Figure 7.3).

On the other hand, the use of Irish on signs is rather minimal in the private sector, except in tourist settings where Irish has a somewhat higher presence. For example, Kallen (2009) demonstrated a clear relationship between tourism, language policy and community use as well as a substantial difference between two towns in the Republic of Ireland, where more Irish was on display and two towns in Northern Ireland (United Kingdom) where it was less. Similarly, Thistlethwaite and Sebba (2015) looked into the exclusion of Irish from signage in the town of Ennis on the west coast. They found that governmental campaigns had produced a clear presence of Irish and thus the language may have seemed visible on a substantial amount of the signage, but on private signs Irish was displayed much less. The authors consider this a process of the 'passive

Figure 7.3 Bilingual traffic sign with Irish on top

exclusion of Irish'. Moriarty (2012, 2014b) analyzed discourses in the tourist town of Dingle and she focused on the debate surrounding the proposed change of the name to its Irish version (see also Chapter 11). She found that the use of Irish in signage, combined with fonts and colors, was a way of appealing to traditional values so as to be attractive for tourists. In a small-scale study, Schulte (2016) compared two shopping areas in two neighborhoods in the south of Dublin, the capital. She encountered some bilingual Irish–English signs, but English-only signs were clearly dominant, including signs posted by the local government. Carson *et al.* (2015: 32) mentioned that out of 600 restaurants in Dublin only eight had Irish names. They concluded that despite the elaborateness of official bilingualism, migrant languages were also clearly visible in storefronts in Dublin. Kallen and Ní Dhonnacha (2010) examined some examples of the metaphorical use of Irish and this led them to conclude that Irish can be used both to refer to tradition and to globalization when used in combination with other languages. Overall, the studies show that Irish has a substantial presence and visibility on top-down signage, but it has low visibility in private and commercial signage, except for tourism purposes. The Irish situation is complex and we qualified it as medium presence.

Marshallese

The indigenous language of the Marshall Islands is Marshallese, a Micronesian language. In Mājro/Majuro, the capital, Buchstaller and Alvanides (2017) made an inventory of the linguistic landscape, just before a new law took effect that required signage to be bilingual in English and Marshallese. Based on a corpus of almost 2,500 signs, the authors present a detailed mapping of the geographic distribution of the language signs over the atoll (see Section 5.7 on geographic maps). Their maps show the different densities of the languages, where English dominated and Marshallese on its own or in combination with English was underrepresented (in total about one-fifth of all signs). In a second publication, where they use extensive geovisualisations to show the geographic distribution of the languages, the researchers argued that the indigenous language 'has been pushed out of its own ethnocultural territory' (Buchstaller & Alvanides, 2019: 215).

Comparing the four cases of Arabic in Israel, Galician in Spain, Irish in Ireland, and Marshallese on the Marshall Islands, we can see that the languages have an official status in common. However, in all cases formal recognition by itself turns out to be insufficient for a really strong presence in the public sphere. In particular, there may be stark differences between top-down or government-sponsored signs and the public sphere of private initiative and commercial signage. Reasons for a relatively modest presence on public displays may vary somewhat between the

different contexts, but in terms of visibility the end result is more or less the same. Overall, we have characterized the presence in the linguistic landscape of these minority languages as medium.

In the next category, we place some minority languages with a limited presence in public spaces, despite their presence being approved or at least permitted by local authorities. Here, we examine the cases of Frisian in the Netherlands, Gedeo in Ethiopia, the Sámi languages in Sápmi – an area extending from Norway, via Sweden and Finland into Russia – Slovenian in Italy and the special case of Tagalog in Hong Kong.

Limited presence

Frisian	Gedeo	Sámi languages	Slovenian	Tagalog

Frisian

Until recently, the language policy of the provincial and the state governments did not include a measure about public signage, except for street names and place names. As a consequence the visibility of Frisian in public spaces has been rather modest. In our classic study, we showed a limited presence of Frisian in the linguistic landscape of the main shopping street of Ljouwert-Leeuwarden, the capital of Friesland. We found Frisian on 5% of all signs, on its own or in combination with Dutch (Cenoz & Gorter, 2006). Edelman (2010, 2014) carried out an elaborate study of another shopping street in the same city, comparing it to two shopping streets in smaller towns in Friesland (and to some shopping centers in Amsterdam). Even though she used a different sampling procedure, her study confirmed the limited presence and visibility of Frisian, not only in the capital, but also in the provincial towns, where she found at most a presence for Frisian on 15% of all signs. The comparison showed that Dutch and English equally dominated in the linguistic landscape in Friesland (and Amsterdam). Seifi (2015) experimented with eye tracking by asking subjects to look at photographs of signage from the same main shopping street in Ljouwert-Leeuwarden (see Section 5.9 for details on her eye-tracking study). Her experimental findings showed that viewers had an interest in Frisian on signs although Dutch was preferred. In another study, from an economic perspective, a similar preference for Dutch over Frisian was found (Onofri *et al.*, 2013). Kuipers-Zandberg and Kircher (2020) reported on a small-scale study in which participants did not observe a great presence of Frisian in the linguistic landscape but did express a clear desire for a more extensive use of Frisian. As a minority language, Frisian is somewhere in the middle of our continuum because it has obtained some official approval from the authorities and some ideological support, but its use in public spaces is rather limited (Figure 7.4).

Figure 7.4 Sign in Frisian, Leeuwarden-Ljouwert

Gedeo

In Ethiopia, two local languages, Gedeo and Koorete, were the focus of a study by Mendisu *et al.* (2016). In two towns, they centered specifically on the visibility of the languages on public signage. In the first town, Dilla, they found that Gedeo, the local majority language, was used on less than 8% of all signs (n = 190), always in combination with Amharic and/or English and it thus had only a minor or occasional presence. The second language in this study, Koorete, was the majority language of the town of Amarro-Keele, but it had no presence at all on the signage, which was dominated by Amharic-only (68%) and bilingual Amharic–English signs (30%) (n = 69). The authors consider this lack of visibility of these smaller languages to be a serious concern for their vitality and for multilingualism in Ethiopia.

Sámi languages

In the far north of Europe, above the Arctic circle, in the area known as Sápmi stretching over Finland, Norway, Sweden and Russia, different

Sámi languages are spoken. Pietikäinen *et al*. (2011) examined the linguistic landscapes of seven villages located in this region of Sápmi. In those villages, a total of nine different Sámi minority languages were in use, as well as the minority languages Kven and Meänkieli, the majority languages of the four states, English and several other languages. Each village had a different combination of the languages and varying degrees of use of the local minority language. The researchers focused on five types of signs: name signs, notices, adverts, street signs and road signs. Their analysis resulted in an overview where the national majority languages, respectively, Finnish, Norwegian, Swedish and Russian, turned out to be the most prominent on the signs. The minority languages had a presence, but mostly in a hierarchically secondary position, with a greater visibility in some villages and almost none in another. English had a presence mainly for tourism, as well as some other languages. As part of the same project, Salo (2012) observed the presence of the Sámi languages in four villages. Her analysis showed that the use of Sámi varied from a strong position in public and private signs in one village to almost complete absence in another village, which was dependent to a large degree on language regulations. Straszer and Kroik (2022) focused on the visibility of South Sámi at a preschool in a town in the north of Sweden. They explored functions of South-Sámi on signs and included Sámi cultural artifacts. Taken together, we categorize the Sámi languages as having a limited presence.

Slovenian (in Italy)

The official state language of Slovenia is Slovenian (or Slovene), which is at the same time a cross-border minority language in the province of Carinthia in Austria (see Chapter 11 on the battle over place names) and in the province of Trieste, in the north of Italy. In the case study of that latter area, Tufi (2016) illustrated the role of factors such as long-term historical and political developments, contrasts between urban and rural areas, socioeconomic organization and identity. About 10% of the inhabitants of the city of Trieste were of Slovenian origin at the time of the study, but the Slovenian language was barely visible on signs. In the province surrounding the city there were more bilingual signs with Slovenian, although monolingual signs remained exceptional. Tufi (2016: 114) concludes that 'Slovenian is not the dominant language in the local linguistic market' (Figure 7.5).

Mezgec (2016) extensively studied the linguistic landscapes of three cities and nearby villages in the same historically Slovenian-speaking parts of Italy. Based on her extensive corpus (n = 3,876), she found a presence of Slovenian dialects on 1.9% of monolingual signs and a presence of Slovenian on just over half (53.2%) of bilingual or multilingual signs (15.1% of all signs). This implies an average presence of Slovenian

Figure 7.5 Italian–Slovenian sign in shop window (Trieste)

for the whole sample of just below 10%. She found a somewhat higher presence in top-down signs of public institutions and in particular in the smaller villages. Mezgec (2016) concluded that Slovenian has to struggle for visibility and is in need of stronger language policies.

Tagalog

Tagalog, officially named Filipino, is widely spoken in the Philippines, where it is an official language alongside English. In the Philippines, as the majority language it would be categorized as taken for granted, even when there is a strong presence of English among others, at train stations (De los Reyes, 2014) and a protest march (Monje, 2017). However, Tagalog is the language spoken by a large immigrant minority group in Hong Kong, and Guinto (2019) made some interesting observations on the use of Tagalog in the central part of the city. On Sundays, large groups of Filipino domestic workers come together and this leads to weekly changes in the linguistic landscape. Firstly, in the area where they congregate there are a number of fixed regulatory signs which are trilingual in Chinese, English and Tagalog. Secondly, once-a-week stands pop up with temporary commercial signs that include Tagalog in order to sell their products to Filipinos. Tagalog as a minority language in Hong Kong is, obviously, missing from other studies of the linguistic landscape

of this city (e.g. Lai, 2013; Wong & Chang, 2018). Even though it has a periodic character, we categorized the presence of Tagalog in this specific location in Hong Kong as limited.

Comparing the cases of Frisian, Sámi, Slovenian and Tagalog shows that although they are used in rather different contexts, all these languages struggle to be seen in public spaces, which attests to their minority character. They may have obtained some visibility, even if it is once a week as in the case of Tagalog, but compared to the majority language they lag far behind.

In the next category, we find minority languages that are seen even less. These languages have an occasional presence on a limited number of signs. The reasons are that these languages are not given much notice and thus are disregarded as language of signage, or they are disputed and opposed. Here, we discuss the cases of Breton in France, the Inuit language in Canada, Santali in India and Sorbian in Germany.

Occasional presence

Breton	Inuit language	Santali	Sorbian

Breton

In the region of Brittany in France, Vigers (2013) observed that Breton as the regional minority language was increasingly used for place name signs, reflecting some degree of official recognition. He argued, however, that this symbolic use had not revitalized its oral use, but had made it possible to commercially exploit and commodify Breton as a heritage language. In another study, Blackwood (2011) compared the limited visibility of Breton and Corsican in the linguistic landscapes of both regions, where he found that Corsican had a slightly stronger presence, in particular for brands and product names. Hornsby (2008) conceived of the limited appearance of bilingual signs in many Breton towns and cities as marketing gimmicks and a manifestation of the commodification of the language.

Inuit language

Daveluy and Ferguson (2009) looked into the language of the Inuit, in Nunavut and Nunavik in the north of Canada. They found much variability in the display of the language of the Inuit on stop signs and street signs, due to the use of the Roman alphabet as well as a syllabic writing system and several spelling differences. In fact, all road signs in the territory of Nunavik incorporated the language of the Inuit to some extent, but it did not seem that the language was used much on other signs. The road signs visually represent the linguistic situation of the Inuit in its entire complexity.

Santali

In West Bengal (India) in the village of Jhilimili, Choksi (2015) analyzed the linguistic landscape of a market. As the study reported, in this village a majority of the inhabitants were speaking Santali and Bengali, both recognized as official languages by the government.

However, the status of Santali was disputed by many non-Santals, who sometimes described it as a dialect of Bengali. In the linguistic landscape, the researcher came across four scripts and four languages although to different degrees and in complex configurations. The central government uses a formula for signs of three languages (English, Hindi and Bengali) and three scripts (Roman, Devanagari and Eastern Brahmi). Thus, the Santali language and its Ol-Chikri script were largely missing. The Santali language, with an estimated 7.6 million speakers, has been treated socially much like a marginalized minority language.

Sorbian

In two eastern *Länder* (provinces) of Germany, Sorbian is a recognized minority language that has been given some visibility in public signs by the regional authorities. In the town of Budyšin-Bautzen, Marten and Saagpakk (2019) observed that Sorbian cultural institutions and media created some space for Sorbian in public, but it was a space otherwise heavily dominated by German as the majority language. Their analysis showed that the minority language was socially segregated and its speakers were not included in mainstream affairs. It is rather doubtful if this occasional display of Sorbian had any effect on language revitalization or on an increase of respect for the minority language by the German speakers. Their results were largely confirmed in a study by Bleakly (2022) who focused on a small study (n = 43) in the same town on bilingual street names, one government agency and the operational instructions on recently placed parking meters.

Although located in different contexts, the comparison of Breton, Inuit language, Santali and Sorbian makes clear that a little official recognition by the administration is not sufficient to obtain a significant presence for the minority language in the public space. Historical reasons, negative attitudes and competition with the dominant state language and with English make it hard for these marginalized minority languages to obtain more than occasional visibility.

The next group of minority languages has even less visibility in public spaces. Here, we discuss some studies of the minority languages Bhojpuri and Magahi in India, Kichwa in Ecuador, Latgalian in Latvia and Māori in New Zealand.

Minimal or no presence

Bhojpuri and Magahi	Islander Creole	Kichwa	Latgalian	Māori

Bhojpuri and Magahi

The regional languages Bhojpuri and Magahi are spoken by a majority of the population in the northeast of India, in the town of Bihta in the state of Bihar. Through a quantitative study, Begum and Sinha (2021) found that the two languages were invisible in the linguistic landscape. Their inventory of the signage showed the dominance of Hindi and English (together on some 95% of signs). A few signs contained Urdu and there was some mixing of Devanagari and Roman scripts. The lack of visibility for the minority languages was attributed to negative attitudes among the interviewed shop owners who did not want to use their mother tongue on the signs instead of English or Hindi.

Islander Creole

Restrepo-Ramos (2020) examined the presence of Islander Creole, English and Spanish in the linguistic landscape of the neighboring islands of Old Providence and Santa Catalina, Colombia. He found a presence of less than 2% of Islander Creole on all the signs he collected (n = 714). About half of the signs were in Spanish only, one-quarter bilingual Spanish–English and one-quarter in English only. He analyzed the nine signs that use Islander Creole and observed that they were handwritten and appeared in unconventional places such as lamp posts. Some specifically aimed to raise awareness about the language, the local culture or the environment. Restrepo-Ramos suggested that there were some official signs in Islander Creole on the nearby island of San Andres. Overall, the local language was hardly visible.

Kichwa

Kichwa, a Quechua language, is officially recognized in the constitution of Ecuador. Litzenberg (2018) compared the signage of two university institutions in the north of Ecuador and he found that the public signage was dominated by Spanish and by internationally recognizable symbols and icons, which were with a few exceptions in English. The only Kichwa word, *Yachay*, is the name of the institution and its use is merely symbolic, even though Kichwa is the main spoken language of the region. He concluded that its absence in the signage reinforces the secondary status of Kichwa as a minority language. Wroblewski (2020) took a linguistic anthropological approach in examining the site of the hospital in the Amazonian city of Tena in Ecuador. His study is part of an ethnographic, long-term study on language revitalization. He observed the changes in sign-making processes from locally produced signs in a project on useful hospital words based on traditional values to a central government-led process whereby standardized bilingual Spanish–Kichwa signage was produced from the top down. A continuous struggle for the minority language is ongoing and he concludes ‘absence can be just

as telling as presence' (Wroblewski, 2020: 165). Puma-Ninacuri and Narváez (2021) combined quantitative and qualitative methods to investigate the use of Kichwa in relation to Spanish and English in two main streets highly frequented by tourists in the city of Otavalo, Ecuador. Their findings demonstrated that the main use of Kichwa was to name a business, with Spanish and English used for more informative functions. For the interviewed locals, Kichwa was seen as belonging to the place and an expression of identity. However, while tourists also recognized the idea of authenticity and identity, they simultaneously saw the use of Kichwa as a marketing tool or, in the author's view, a commodification of the language in order to increase sales. Taken together, the studies demonstrate Kichwa's minimal presence.

Latgalian

In Latvia, in the region where the Latgalian minority language is spoken, Marten (2012) studied its absence as a written language in public spaces. The law prescribes that only the state language, Latvian, should be used on official signs, although other languages are tolerated on commercial or private signs. In the town of Rezekne, Latvian was present on 86.4% of the signs and English on 28.9%. Less than 1% of the signs contained Latgalian (Marten, 2012: 27). This implies that the minority language was almost invisible in the linguistic landscape. In an update of the situation of Latgalian, Martena and Marten (2021) found a modest improvement in the situation over the past 10 years. The minority language has obtained a small presence in the linguistic landscape, but its visibility is still very low. We place Latgalian at the lower end because it has little visibility. Perhaps in the future it could be moved to the category of occasional.

Māori

In New Zealand, Māori is recognized as an official language along with English and New Zealand Sign Language, so it is not excluded or prohibited at all. Only a small percentage of the population speaks Māori and in society it functions as a minority language. Macalister (2010) carried out a study of the linguistic landscape of Picton, a small town which he calls representative of 'middle New Zealand' and he encountered a very minor presence of Māori. There were no signs with the minority language on its own and a rather small number of bilingual English–Māori signs (8.8%). For the most part, those signs contained single loanwords, which could be understood by local monolingual English speakers. He concluded that the New Zealand public space remains monolingual. In another study, Johnson (2017) wanted to investigate Māori, but she did not find a single sign in Māori in two shopping centers, and thus she chose to investigate another shopping mall that had a

Māori name. She argues that the few bilingual signs at the third shopping mall are a departure from the monolingual norm in New Zealand. In a similar study, Cunningham and King (2021) explored the international airport of Christchurch in New Zealand and they illustrated the use of Māori for touristic purposes. Visitors may assume they have arrived in a bilingual country, but the authors see this use of Māori as tokenistic, exoticizing and merely decorative. In contrast, Harris *et al.* (2022) found a high presence of the Māori language inside a Māori immersion early childhood center. Most of the signs were produced by the teachers and used for education purposes. We doubt between occasional and minimal, but conclude that there are few signs in Māori in New Zealand, except in specific contexts like early education centers.

Comparing the minority languages in the cases of Bhojpuri and Magahi in India, Islander Creole in Colombia, Kichwa in Ecuador, Latgalian in Latvia and Māori in New Zealand, we can mention some similarities and differences. The various studies plainly demonstrate that each of these languages lacks visibility in the linguistic landscape. If there is a presence it is rather minimal and usually symbolic. As we saw in the case of Kichwa, recognition by the state, tourism and bottom-up activism has given it some presence and this case might have been equally well placed in the category of occasional presence. Over the years, there has been some increase in the display of Latgalian. Māori has only a token presence in New Zealand and is limited to specific areas like the airport, notwithstanding its status as an official language of the country. The outcomes of the various studies demonstrate once more that the categories are fluid and dynamic. Moreover, the presence of these minority languages in one location may be minimal or lacking, while in other locations, e.g. places visited by tourists or schools, their presence may be higher.

What emerges from the above comparison of 24 cases of minority language groups is that the link between the presence and the visibility of a language and its vitality should be investigated rather than taken for granted. Having visibility in public spaces is important for a minority language, and often it is part of the supporting language policy; however, the direct effect of visibility on revitalization should not be overestimated. In their seminal study, Landry and Bourhis (1997) suggested a direct link between the presence of a language and the ethnolinguistic vitality of a language community, in their case the French-speaking community in Quebec. In other cases, the relationship is not as straightforward because the influence appears to be more indirect. For example, signage may have an effect on the self-esteem of minority language speakers (Brown, 2012) or it can lead to a public debate and challenge negative stereotypes (Puzey, 2012a). Historical, economic and political developments as well as prevailing and persistent negative language ideologies can exert an

important influence. A minority language may have a relatively strong position in society as a spoken language, or it might even be the majority language. However, the lack of a written tradition, low levels of literacy or negative attitudes toward its written use, may prevent the minority language from obtaining a substantial presence in public spaces. Comparing the two ends of the scale, we see at one end the example of German in Belgium which functions similarly to a taken-for-granted majority language. The examples of Basque, Catalan, Tigrinya, West Greenlandic and Yi also demonstrate a relatively strong presence in public spaces. A visitor to those areas cannot possibly miss the local language. In contrast, the cases at the other end of the scale – Bhojpuri and Magahi, Islander Creole, Kichwa, Latgalian and Māori – have hardly any or no presence at all, even if some of those languages have obtained a form of official recognition. Here, visitors may not notice the local language at all or they may misinterpret the presence in welcome signs at the airport as a token of a bilingual linguistic landscape (as in the case of Māori). From the presentation of the different cases it has also become clear that the continuum we constructed is a sliding scale on which there are no fixed points. Classification of some languages in one or another category is not always clear-cut and in that sense it remains an approximation. The situations are further complicated by the presence, in all cases, of English (see Chapter 9) as well as big commercial names, fantasy names and sometimes the use of Italian or French words or brand names for fashion and food products.

One of the main shared characteristics of all these minority languages is that they are struggling for survival and they are endangered. Their use on public displays for the expression of identity may in some cases lead to social conflict. It demonstrates an underlying power dynamic between different social groups in which the minority language group is usually the weaker. In societies where only one language dominates because it is the official language of the state, this language may experience competition from English, and in some neighborhoods or ethnic enclaves the languages of immigrants may have a degree of visibility. In the next section, we turn to Chinatowns as an example of such specific ethnic enclaves.

7.5 Chinatowns

As is well known, a Chinatown is a special type of neighborhood in many big cities around the world, characterized, among other things, by Chinese as a highly visible language. However, Chinese is a minority language in the wider context in those cities where the majority language usually dominates in other neighborhoods, unless there are other ethnic enclaves. As we will see, sometimes the majority of signage in a Chinatown is in Chinese and in others it is not. We did not include Chinese in the categorization and comparison of minority languages in Section 7.4

because of this special position and also because Chinese is, of course, one of the most widely spoken languages in the world.

Chinatowns in various cities are sites that have been relatively frequently investigated in linguistic landscape studies (Huebner, 2021). In our own inventory of the linguistic landscape literature, we encountered over 25 publications that discuss the display of different languages in one or more Chinatowns. In this section, we present some distinguishing outcomes of those studies which deal with Chinatowns. We already referred to Chinatowns as a special sampling area in Chapter 4 on research methods, given its character as a specific type of neighborhood. In his introduction to diasporic communities and linguistic landscapes, Huebner (2021: 122) points out that Chinatowns 'differ in their histories, ethnicities, times and conditions of migration, duration of stay, internal cohesiveness, and relationship with both the home and host countries'. The histories of Chinatowns in different parts of the world are discussed in Wu *et al.* (2020). Obvious as it may sound, Chinatowns can be found in many cities on different continents, but not in China. However, there are other, similar ethnic neighborhoods in China as we will see below.

The various studies of the linguistic landscapes of Chinatowns usually provide a short background description of the unique history of each Chinatown. The studies share other dimensions which we will try to summarize, although some aspects may be given more or less emphasis depending on the aims of the study.

Similar to other linguistic landscape studies, several theoretical approaches have been chosen and quantitative, qualitative and mixed methods have been applied, but we will not deal extensively with those theories or methods (see Chapters 3–5).

The most important aspect in studies of Chinatowns is a description and analysis of the display of Chinese in relation to other languages. Here, we also focus on this aspect of signage. Studies can further include an examination of the linguistic aspects of signs, such as the varieties of Chinese or the different scripts.

Additionally, researchers give attention to material and multimodal resources, among which are symbols or artifacts like the typical arch, Chinese lanterns, colors and architectural features. A less prominent dimension mentioned in some studies is the diversity of the population of the neighborhood. Some studies focus in particular on the character of a Chinatown as a tourist destination in relation to concepts of authenticity and identity. Processes of commodification and gentrification have been investigated by several authors as well.

In terms of the theoretical approach chosen, several studies apply the perspective of geosemiotics (Scollon & Scollon, 2003). For example, both Lou (2010, 2016a) and Leeman and Modan (2009) applied an analysis based on geosemiotics to the linguistic landscape of the Chinatown in Washington, DC (see also Chapter 3). Likewise, Lee and Lou (2019)

examined the Chinatown of the city of Incheon in South Korea through the lens of geosemiotics, as did Zhao (2021) in Paris. Also drawing on geosemiotics, Xu and Wang (2021) focused on restaurants in a Chinatown in Sydney, combining their approach with Blommaert's (2013) ethnographic perspective. The application of a geosemiotic approach implies an emphasis on the placement of signs and the different uses of space because the approach distinguishes between the interaction order, visual semiotics and place semiotics. Lou (2016a) adds to those three dimensions a distinction between ritual and lived spaces.

The most important characteristic trait of Chinatowns in linguistic landscape studies is the display of the Chinese language. Inside these enclaves, the Chinese language is on display, usually in different varieties and with different scripts. The distribution of the different languages on signs is usually presented in the quantitative (parts of) studies.

In the remainder of this section, we explore the display of Chinese and other languages as uncovered by studies in North America, Europe and Asia. In North America, we can mention studies in Philadelphia, Washington, Vancouver and a recent study that covers eight Chinatowns. In the Chinatown of Philadelphia, Leung and Wu (2012) studied linguistic tensions and language vitality based on a collection of photographs ($n = 330$). In their materials they found various Chinese language varieties used in creative ways and a mix of traditional and simplified scripts. The signs assume a multilingual audience and a Chinese community that does not really exist. Lou (2012) observed in the Chinatown in Washington, DC, that English is quantitatively more prominent than Chinese. Her results show English in the preferred position on 47% of 34 Chinese stores and 98% of 55 non-Chinese stores. According to her, English does not represent any particular language group, or even globalization, but instead it represents the interests and identities of corporations involved in the redevelopment of the neighborhood. Lou (2016a) argues that the Chinatown may seem to present a homogeneous linguistic landscape with Chinese and non-Chinese stores displaying similar signs, but she can point to subtle differences in code preference, content and color schemes.

In the Chinatown of Vancouver, Li and Marshall (2018) examined the official English–Chinese bilingual signs, in which English was most salient. In contrast, Chinese took the most prominent position in bottom-up bilingual signs, and the same occurred with other languages such as Vietnamese. Various small businesses display traditional Chinese-only signs, although those monolingual signs seem to have triggered a 'We speak English' campaign that calls for bilingual signage. As we discuss below, something similar happened in Rome. Song (2022) presented the results of a study of eight Chinatowns in Canada (Montreal, Ottawa, Toronto and Vancouver) and the United States (Houston, Los Angeles, New York and San Francisco). He presented a qualitative analysis of the signs and the multimodal elements from the

perspective of translation studies. His study confirms how Chinatowns are marked by bilingual signage and other visual features giving them a Chinese atmosphere 'that is a mixture of exaggeration, stereotypes and imagination' (Song, 2022: 6). He concludes that the mixture of English (or French) and Chinese texts together with the distinctive visual elements transforms Chinatowns from traditional ethnic enclaves into cosmopolitan urban spaces.

On the European continent, we can mention studies in Liverpool, Paris, various cities in the Netherlands and Belgium and in Rome. In Liverpool, Amos (2016: 128) emphasized the contrast between the ill-defined area known as Chinatown where there is a high presence of Chinese texts, and the rest of a 'city in which English is ubiquitous and dominant'. Even in Chinatown, he detected the frequent use of monolingual English, side by side with monolingual Chinese and bilingual signage. The identity of the neighborhood was largely determined by the monolingual Chinese signs, which had a high presence in names of establishments, advertisements and slogans. He was able to show that the food and drink sector, in particular restaurants and supermarkets, was the most important and had the highest frequency of Chinese signs. In Belleville, the second Chinatown of Paris, Lipovsky (2019a) found that in frequency, French was on display in 98% of signs and English came second. According to Lipovsky, the Chinese used in Belleville, in particular on monolingual signs, had a predominantly informational function, although at the same time there was a symbolic function giving the streets a fashionable atmosphere similar to other Chinatowns. This is confirmed by Zhao (2021) who investigated another Chinatown in Paris, the so-called Triangle De Choisy. There is no typical Chinese archway and no official bilingual street signs, but the presence of Chinese signage identifies the territory for newcomers.

In six Chinatowns in Amsterdam, Rotterdam, The Hague and Utrecht in the Netherlands, and in Antwerp and Brussels in Belgium, Wang and Van der Velde (2015) conducted a predominantly quantitative study. The study focused exclusively on the signage of Chinese establishments and they observed different Chinese language varieties and scripts. They also encountered Dutch, English, French (in particular in Brussels) and occasionally German. This selective sample of establishments showed a presence of Chinese varying from 63% in Brussels to the highest 79% in Rotterdam. Dutch varied between 43% in Rotterdam and 52% in The Hague, except for Brussels, where French came second with 50%. The results obtained by Tieken-Boon van Ostade *et al.* (2020) in the Chinatown in The Hague show different percentages, mainly because they considered all establishments, not only the Chinese ones. They conclude that Chinese is not the most frequent language on the signs (Figure 7.6).

Figure 7.6 Dutch and Chinese street sign in Zeedijk, Amsterdam

In Belgium, Guo and Vosters (2020) compared three Chinatowns, one in Antwerp and two in Brussels. Based on a corpus of 2,541 signs, they distinguished three different profiles according to the geographic mapping of the densities of Chinese signs, relative frequencies and language dominance on signs. The highest density, frequency and dominance were found in Antwerp, in particular, in the street marked by the Chinese archway, whereas the Midi neighborhood in Brussels turned out to be an almost invisible Chinatown. However, Dutch in Antwerp and French in Brussels had a higher frequency and were more dominant than Chinese, and also English had a stronger quantitative presence coming second place in all three Chinatowns.

Various groups of migrants reside in the Esquilino neighborhood in Rome, and therefore this is not a Chinatown in the common sense of the word. Barni (2006) found an abundant use of Chinese on signage (similar to Gorter [2009]). However, in the following years the use of Chinese became contested, especially monolingual Chinese. The city government intervened with a regulation that made Chinese–Italian bilingual signs obligatory (Barni & Bagna, 2010) (Figure 7.7).

In Asia, investigations of Chinatowns took place in Bangkok, Manila, Singapore, Incheon and Kathmandu. Wu and Techasan (2016) reported a study of Yaowarat, the Chinatown in Bangkok, Thailand. On one main road, they analyzed 274 shop signs and interviewed 36 people, mostly shop owners. They found that Thai was the most frequently displayed language, followed by Chinese and English. Of all the signs almost half were trilingual, with another large part being bilingual Thai–Chinese. In a follow-up study, Wu *et al.* (2020) examined the so-called New Chinatown in Bangkok along the Pracha Rat Bamphen road. They analyzed 295 signs from 174 shops, supported by interviews and a questionnaire. In quantitative terms, among the monolingual

Figure 7.7 Shops signs in Chinese from the Rome study

major signs Thai was most prominent, followed by Chinese and English. In bilingual signs, Chinese and English had a more salient role than Thai. On the whole, Thai appeared most frequently because the state language is prescribed by law and it may be used for identity reasons. A contrasting result was found by Jazul and Bernardo (2017) in the Philippines. They investigated the three main streets in Binondo, the Chinatown of the capital Manila. The results show that in total less than 10% of all the signs (n = 211) were in Filipino only, Chinese only or with other combinations and close to half were in English only with the other half being bilingual Chinese–English. They conclude that English dominates the linguistic landscape at the cost of Chinese and Filipino, the official state language. According to Jazul and Bernardo (2017), English and Chinese are not used so much for communication, but more for commercial reasons.

The Chinatown of Singapore was investigated by Ben Said and Ong (2019) and Zhang *et al*. (2020, 2021). From the data presented in Ben Said and Ong (2019), it can be calculated that 76% of the signboards contained English and 91% Chinese on its own or in combination (n = 210). This obviously confirms that the two languages together dominate the linguistic landscape. Similarly, Zhang *et al*. (2020) in the same Chinatown, found English on 86% of all signs, Chinese on 52%, Tamil on 5% and Malay on 4% as well as the incidental use of five other languages (n = 839 signs). The difference in percentages between the two studies is probably related to the types of signs included in the samples. Zhang *et al*. (2020) observed a strong preference for English in top-down signs and a similar strong preference for Chinese in bottom-up

signs. However, Chinese in those signs is often only symbolic and not functional or communicative because it is used there to attract tourists. They see a shift to English underway because in the linguistic hierarchy English is clearly on top. Zhang *et al.* (2021) compared the linguistic landscapes of Chinatown by day (n = 808) and at night (n = 283) and they found a tendency to English monolingualism at night, although Chinese was used as a more prominent language. The authors concluded that adding the nighttime as a lens to linguistic landscape studies can offer valuable insights.

Lee and Lou (2019) examined the reinvention of the Chinatown in the city of Incheon in South Korea. Overall, the authors observed that Korean was more frequently used than Chinese in the signage, but visually Chinese was more prominent. Korean, English and Chinese were used for different purposes, but their relations were fluid. They conclude that the signage somehow links the local with Korean, the foreign with Chinese and the global with English. Over a period of three years, Sharma (2021) visited one street in Kathmandu, Nepal, which is now designated as the new Chinatown. Her observations and interviews with locals enabled her to describe how businesses have changed their local names to Chinese or Chinese–English bilingual names.

Australia is the context for the last two studies we will mention here, the first in Sydney and the second in Melbourne. Xu and Wang (2021) undertook an ethnographic study of Chinese restaurants in Hurstville, a Chinatown in Sydney. They compared signs in 2009 and 2019, and they found substantial differences, although Chinese remained the preferred language and most signs displayed Chinese in combination with English. The number of Chinese restaurants had increased (from 18 to 29). The authors argue that the changes in the signage reflect a shift in the composition of the migrant population. Although they did not designate it as a Chinatown, Yao and Gruba (2020) quantitatively and qualitatively investigated the Chinese community in Box Hill, a suburb of Melbourne. In their corpus of 551 signs over half were monolingual, with 35% in English and 17% in Chinese. The bilingual signs were mostly Chinese–English (43%), with Chinese as the most prominent in 27% and English in the other 15% (and in 1% the languages were equal). Other languages, such as Japanese, Korean and Vietnamese, had a minor presence on the signs (less than 1%). In qualitative terms, the authors showed that the makers of the signs used resources such as scripts, colors, materials and images to produce meanings and to express connotations about the business and the targeted clients (Figure 7.8).

After discussing the various cases, it is obvious that the Chinese script stands out even if it cannot be read by many visitors or part of the local

Figure 7.8 Chinese–Vietnamese restaurant in Melbourne

population, except for Chinese people and a few others. For those who cannot read Chinese, the signage is more a kind of decoration than a display of language, even if many will recognize it as Chinese. Today's technology makes it possible to use an app and point a mobile phone camera at a sign in Chinese to obtain an automatic translation, but it is not likely that many people will do this frequently. Most people will also find it hard to distinguish the different varieties of Chinese and cannot distinguish between classical, traditional and the simplified (*pinyin*) versions of Chinese unless it is pointed out to them.

Besides the languages and the scripts, several other multimodal elements are characteristic of Chinatowns. Those elements contribute to the atmosphere and are usually more symbolic than communicative or informational. Or as Song (2022: 16) remarks: 'For non-Chinese speakers, the urban landscape of Chinatowns offers them a glimpse into foreign otherness that is primarily marked by Chinese scripts, colours and symbols'. The architectural features that are symbols of Chinatowns are mentioned in several studies (e.g. Amos, 2016; Lee & Lou, 2019; Lipovsky, 2019a; Lou, 2016a; Sharma, 2021). Those elements contribute to a Chinese look, such as Chinese lanterns and the typical archway (called *paifang*) (see Figure 4.9 in Chapter 4). Lee and Lou (2019) mention that the site in Incheon depends on material resources similar to other Chinatowns around the world. These are, next to an abundance of Chinese signage, multimodal and architectural features. Red is the color that dominates the signs and also the buildings. The various design elements make Chinatown a ritual place which is different from a lived place (Lou, 2016a). Lee and Lou (2019) conclude that the spectacle of Chinatown, its unordinariness, which is something different from the surrounding society, is paradoxically created by ordinary means of languages, materials and architecture. In the case study of Wu *et al.* (2020), the objects and structures such as lanterns and arches are missing from the new Chinatown in Bangkok.

Another dimension that some researchers have examined in their Chinatown is the composition of the population. The inhabitants are

not necessarily a majority of Chinese people, and this tendency seems to be on the increase. The Chinese migrants in these neighborhoods usually shared the same country of origin, which may have been China (often a specific province or city in China), but also, for example, Chinese migrants from countries in Indochina, and these groups had often migrated at different times in history. In this context, Li and Marshall (2018) mentioned that the Chinatown of Vancouver was culturally rather diverse with Chinese, Ukrainian, Japanese, Jewish and Italian immigrant groups. In Esquilino in Rome, various population groups lived together, which was reflected in the signage, where languages from India, Pakistan and Bangladesh were found next to Chinese (Gorter, 2009). Zhao (2021) also observed that the inhabitants came from a diversity of backgrounds and this was occasionally shown in multilingual signs with Vietnamese, Thai or other Asian languages. According to Lipovsky (2019a), the Chinatown of Paris was already a multicultural neighborhood which changed with the arrival of new Chinese migrants in the 1990s. Today, only a minority of its inhabitants are of Chinese descent. Lipovsky (2019a) further mentions that there is also a strong Muslim community and Arabic plays an important role in the linguistic landscape of some neighborhoods. Lee and Lou (2019) reported that the Chinatown in Incheon does not have a significant percentage of Chinese residents. Guo and Vosters (2020) suggested a relationship between the use of different types of Chinese characters and their inhabitants. More simplified characters have been used in the two Chinatowns in Brussels, where there is a more diverse community and inhabitants from different parts of the Chinese-speaking world. This contrasts with the use of the traditional Chinese characters more commonly seen in Antwerp, which has a more homogeneous community of older migrants.

As said above, Lou (2016a) sees Chinatown as a ritual place due to its symbols and design, but at the same time it is a lived place inhabited by different linguistic, ethnic and economic groups, even though those groups often visit separate spaces, with one group going to the restaurants and another group to the community center. Something similar is echoed by Amos (2016), who identifies two dimensions in the Chinatown in Liverpool. On the one hand, it is an in-group space that functions in Chinese only, and on the other hand, it is a bilingual Chinese–English space that creates accessibility for both Chinese and English people. According to Xu and Wang (2021), the Chinese language used in the signs of the restaurants in Sydney's Chinatown is primarily to provide a nostalgic experience for the local Chinese population.

Each city's Chinatown can be turned into a tourist destination, thus making tourism an important factor for the study of the linguistic landscape. For example, in Washington, DC, Leeman and Modan (2009) observed that developers and city planners wanted to create a destination for tourists using Chinese characters and elements of its architecture.

In her in-depth investigation of the same Chinatown, Lou (2016a) also noticed that the neighborhood had become a popular tourist destination, and processes of urban development had given its real estate a huge economic value. Similar observations about Chinatowns as popular tourist attractions are made by other authors. Binondo, the Chinatown of Manila in the Philippines, is one of the oldest in the world and the neighborhood has become an important tourist attraction due to the businesses and restaurants run by Chinese Filipinos (Jazul & Bernardo, 2017). Likewise, Wu and Techasan (2016) reported that Yaowarat, the old Chinatown in Bangkok is now a famous tourist destination whereas in contrast, the so-called New Chinatown is not a tourist destination (Wu *et al.*, 2020). In The Hague, the local government has officially designated the Chinatown area as a tourist destination. The area is decorated with an arch, Chinese lanterns, sayings in Classical Chinese on the kerb stones and bilingual street signs. However, Tieken-Boon van Ostade *et al.* (2020) argued that notwithstanding this visual presentation, a better name for the area would be Asian, especially given its mixture of inhabitants and the diversity of languages on display. As we mentioned, in recent years a new Chinatown has arisen in Kathmandu and Sharma (2021) described in detail the process of how this did not come about through migration as in other cases, but under the influence of Chinese tourism from mainland China. In this Chinatown, the tourists from China seemed to travel together in a 'tourist bubble', with its effect visible in the Chinese signage. Sharma (2021) observed that Chinese materials, in particular silk scarves, were aimed at the Chinese tourist customers, and at the same time the names and objects made the place more exotic for non-Chinese visitors. This is a process of commodification that was also observed by Lou (2010), and the consequence is that the Chinatown has become a commercial center that has made the original residents move away. In most Chinatowns around the world, the Chinese language and cultural artifacts are commodified and mainly used symbolically to please non-readers of Chinese.

Authenticity is related to the dimension of tourism. Wu *et al.* (2020) went as far as to argue that authenticity is a central dimension of the study of Chinatowns. In their own examination of the so-called New Chinatown on Pracha Rat Bamphen road in Bangkok, their central question was what constitutes authenticity? The results demonstrate considerable differences between the new Chinatown and the old Chinatown. The Chinese respondents experienced Pracha Rat Bamphen road as modern China with 'real' signage and language, while Thai respondents found that it missed many aspects of the old Chinatown. The authors conclude that more than one authenticity exists in the same space and it depends on differences in conception among the different social groups. For Lipovsky (2019a), the writing in Chinese characters is a way to

emphasize authenticity, and likewise Jazul and Bernardo (2017) see the display of Chinese as giving a sense of authenticity and cultural identity. For Lee and Lou (2019), this 'Chineseness' is an effort to invent the space as authentically Chinese, and Li and Marshall (2018) remark also that the official English–Chinese bilingual signs are part of a policy to promote the area as culturally authentic. To this, Wu and Techasan (2016) add the insight that the names of businesses were often chosen to reflect traditional Chinese values and feelings of nostalgia, and at the same time can function to make the area appealing for tourists. Lou (2016a) takes the argument one step further and comes to a contrasting conclusion. For her, the bilingual linguistic landscape contributes to its inauthentic or fake image. Lou emphasizes the dimensions of space and time, pointing out that the authenticity of the space of Chinatown is influenced by historical changes in actors, discourses and resources related to immigration waves, the civil rights movement and changes in city planning. Over time, Chinatown has become a different, 'other place' or heterotopia, applying a concept from Foucault (1986) (see Chapter 3).

As can be seen in the foregoing paragraphs, various issues studied by linguistic landscape researchers come together in the study of Chinatowns. The most important is obviously the examination of the display of Chinese, English and other languages, including linguistic aspects and different scripts. It is related to the diversity of the inhabitants and visitors of this special type of neighborhood. Chinese signage and symbolism are further connected with issues of (in)authenticity, displays of identity, processes of commodification, gentrification and the neighborhood's character as a tourist destination. The most remarkable outcome of most studies is probably that in the various Chinatowns, Chinese is not the most frequent language on signs. We summarize the outcome for the different Chinatowns in Table 7.3.

From the overview in Table 7.3, it is clear that in most cases Chinese is not the most frequently displayed language in the various Chinatowns. The local official language or English can be observed more often. The cases where Chinese is the most frequent language are because the area is specially geared toward Chinese tourists (Kathmandu) or the focus is on a specific type of establishment such as food stalls in Singapore and restaurants in Sydney, and the same is the case for the study by Wang and Van der Velde (2015) who included exclusively Chinese establishments.

In all cases, however, Chinese is the language that stands out more than any other and it is the most salient for visitors. Chinatowns have almost always become a tourist attraction and the Chinese script along with other elements serves to identify the area as different from the rest of the city. It is the display of the Chinese language that most strongly contributes to making the area into a Chinatown.

Table 7.3 Most frequently displayed language in various Chinatowns

Chinatown location	Most frequent language	Source
Liverpool	English > Chinese	Amos (2016)
Manila	English > Chinese	Jazul and Bernardo (2017)
Melbourne	English > Chinese	Yao and Gruba (2020)
Singapore 2 (eight streets)	English > Chinese	Zhang *et al*. (2020)
The Hague	English > Chinese	Tieken-Boon van Ostade *et al*. (2020)
Vancouver	English > Chinese	Li and Marshall (2018)
Washington, DC	English > Chinese	Lou (2010, 2016a); Leeman and Modan (2009)
Paris (Belleville)	French > Chinese	Lipovsky (2019a)
Paris (Triangle de Choisy)	French > Chinese (not clear)	Zhao (2021)
Antwerp and Brussels	French/Dutch > English > Chinese	Wang and Van der Velde (2015); Guo and Vosters (2020)
Rome	Italian > Chinese	Gorter (2009); Barni (2008); Barni and Bagna (2010)
Incheon	Korean > Chinese	Lee and Lou (2019)
Bangkok (old C-town)	Thai > Chinese	Wu and Techasan (2016)
Bangkok (new C-town)	Thai > Chinese/English	Wu *et al*. (2020)
	Chinese more frequent	
Kathmandu	Chinese > other languages	Sharma (2021)
Sydney (restaurants)	Chinese > English	Xu and Wang (2021)
Singapore 1 (food stalls)	Chinese > English	Ben Said and Ong (2019)
	Not clear	
Amsterdam, Utrecht, The Hague, Rotterdam	(Chinese establishments only)	Wang and Van der Velde (2015)
Philadelphia	'easy to find English'	Leung and Wu (2012)
Houston, Los Angeles, New York, San Francisco, Ottawa, Toronto, Vancouver, Montreal	'English and Chinese signs coexisting'; in Montreal: 'French and Chinese are prominent'	Song (2022)

BOX 7.1 OTHER ETHNIC MINORITY LANGUAGE ENCLAVES

Other communities in specific neighborhoods similar to Chinatowns stand out through their use of their language(s). Woldemariam and Lanza (2015) examined the area known as Little Ethiopia in Washington, DC. The Ethiopian immigrants, of around 250,000 people, are the largest group of African immigrants in the metropolitan area of Washington. The Amharic language is frequently visible on Ethiopian establishments in the area (on 84% of 113 signs). The authors show how the Amharic language and script are used to construct an Ethiopian

space in combination with other identity markers such as images of the Ethiopian flag and national colors, references to Ethiopia's connections to Judeo-Christian traditions, and other semiotic resources. It creates links to the (imagined) homeland and it also establishes 'a racial identity that separates them from other black communities in the area' (Woldemariam & Lanza, 2015: 185).

Another example is a study by Gubitosi *et al.* (2020) in the Ecuadorian community in New York. Ecuadorians are the fourth largest group of Latinos in New York. A concentration of their businesses can be found along Roosevelt Avenue, comprising a large part of one long street in the neighborhood of Queens. In that area, the authors made an inventory of the signage of shops and posters. They found that a majority of the shops belonged to communities other than Latinos (503 of 685 shops, i.e. 85%). Among Latino shops, most were Ecuadorian shops, with a wide variety of business types. Most of the Ecuadorian signs were in Spanish only (69%), 5% were in English only and the rest were bilingual. These numbers were slightly different from Mexican and Colombian shops. The posters analyzed were almost all Ecuadorian and showed slightly more Spanish. As we saw previously with the Ethiopian community, also here identity markers were frequently displayed through the flag, the colors and the coat of arms of the Ecuadorian community in Queens.

In London, Rasinger (2018) reported comparable findings for Banglatown, a neighborhood inhabited by a high number of immigrants from Bangladesh. Rasinger argues that the neighborhood is a product of a combination of its linguistic landscape and its people. In his qualitative analysis he did not consider which languages predominated, but overall this seemed to be English, with a smaller role for Bangla. He observed how multimodal elements such as colors or images were added to some monolingual English signs in order to show a Bangladeshi identity, similar to what we saw before with, among others, the Ethiopian and Ecuadorian communities in the United States. In bilingual signage, the use of Bangla linguistic items may have been merely symbolic, rather than having a communicative intent.

Also in the United Kingdom, in Manchester, Matras *et al.* (2018) conducted a study of the Hasidic-Haredi community, which are the so-called ultra-Orthodox Jews. The authors discuss the presence of the Yiddish language alongside Hebrew, some elements of Aramaic, and English. Excluding English-only signs, their corpus (n = 218) contains about one-third of signs with Yiddish, often combined with Hebrew and over 80% with Hebrew only or, more often, in combination with Yiddish and/or English. There are some parallels to Chinatowns in terms of the visibility of the languages, in particular of Hebrew and Yiddish, but in this case the reasons for the display of

the languages are not related to commodification, identity, authenticity or attracting tourists. In this community, the use of Yiddish is inward oriented because the community wants to keep to itself, which implies that Yiddish is only occasionally on public display. In an earlier study, Gaiser and Matras (2016) presented data on the distribution of the different languages in Manchester, including Hebrew, Yiddish and Chinese based on data collected with the LinguaSnapp app (see Chapter 4).

In China itself there are also ethnic neighborhoods, similar to other ethnic neighborhoods and in some ways resemble Chinatowns around the world. In the city of Guangzou, Liao and Chan (2022) studied two such ethnic neighborhoods: one inhabited by semi-illegal migrants from various African countries, with over half of the businesses oriented toward trade, and the second a Korean ethnic neighborhood with half of the businesses operating as restaurants. The researchers found a sharp contrast between the two neighborhoods not only in their economic activities, but also especially in their linguistic landscapes. The African neighborhood is characterized as poor, low-end globalization, with an emphasis on trading between Chinese sellers and Africa buyers who are using English as a common language. In contrast, the Korean neighborhood is a commercial street aimed at Chinese tourists, where the Korean language is mainly symbolic and Chinese is used for informative functions.

In both cases, bilingual signs predominate, in terms of language use and salience on shop signs. This was the case even more so in the African street, where Chinese–English bilingual signs were the most common and Chinese was the most salient language. Of the signs, over one-third were monolingual Chinese in the Korean street, and the bilingual signs were Chinese–Korean or Chinese–English or trilingual. In almost all cases, Chinese was in the preferred position on signs. From their qualitative analysis, it became clear that 'Korean wave' (*Hallyu*) products were an important element on many signs. Obviously, there are some parallels in terms of commodification and attracting tourists between the Chinatowns and similar ethnic neighborhoods discussed above, in particular for Koreatown.

7.6 Commodification and Tokenism

As we saw in the foregoing sections, giving merely symbolic representation to a minority language, usually on a limited number of signs, can lead to a process of language commodification. This was particularly strong in the case of most Chinatowns. Several linguistic landscape

studies have focused on how minority languages can become commodified. The visibility of a language in public spaces can be, on the one hand, mainly symbolic, where the minority language has only a limited use value and may be related to feelings of recognition or identity of the speakers of a minority language. On the other hand, the presence of a language on signs can be instrumental and serve an informational function, thus indicating that a language is useful for communication in a specific location. This distinction between the symbolic and informational functions of public signs was, of course, already discussed by Landry and Bourhis (1997; see Chapter 3). Several studies investigating linguistic landscapes link the distinction to the idea of language commodification.

Block (2017) refers to commodification being understood in sociolinguistics as a process through which objects that were previously unsellable become sellable. For a minority language, it means that it can become a sellable product and thus an object of economic exchange that is targeted at customers for commercial reasons. The minority language may be sold as a product through signage and become commercially exploited, especially in texts on products like T-shirts, cups, posters, other souvenirs or miscellaneous articles aimed to be sold to tourists or other interested buyers. Sometimes, its use in street names or place names is also seen as commodification, but that has to be more indirect for example when those names can be used for marketing, but are not sold as such (although that is also possible). Of course, it is not the language itself that is being sold, but the product, the label or perhaps a sign that has the language printed on it.

Kelly-Holmes (2014) used the related concept of 'linguistic fetish' according to which languages are used for symbolic rather than instrumental-communicative purposes. She uses the fetish concept to analyze, for example, advertising texts. Kelly-Holmes (2014: 140) argues that 'The use of minority languages for their visuality is driven primarily by the quest for authenticity in marketing'. It is precisely the effect of authenticity that is discussed in the study by Pietikäinen *et al.* (2011). Using Sámi as a minority language on a sign can add an air of authenticity to the information content and for the authors this makes the language commodified because the product sells better. Pietikäinen and Kelly-Holmes (2011) examined the labeling of souvenirs in the Sámi village of Inari in the north of Finland. The area is visited by millions of tourists and tourism has become an important part of the local economy. The labels on the souvenirs are used to create authenticity through the use of Finnish and Sámi in combination with other multimodal elements such as flags. However, English is dominant and links the objects to globalization and mobility, while the (minority) languages become part of a commodity that has a certain market value.

Along similar lines, Ferguson and Sidorova (2018) discuss the case of the commodification of the Sakha minority language. In the city of Yakutsk in Russia, the linguistic landscape is dominated by the majority language Russian because only names of businesses or some specific words are displayed in Sakha. For the authors, this implies that Sakha is commodified as authentic for non-Sakha speakers. They interestingly add that it also suggests preserving the Sakha-ness as the heritage of the city for Sakha speakers. Examples of discussions of similar issues can also be found in studies of the minority languages Breton (Hornsby, 2008) and Irish (Kallen, 2009; Moriarty, 2012). In general terms, Jaworski (2015a) observed that minority languages can obtain visibility, as well as symbolic and economic value, through commodification of the language. On mass-produced products to be sold to tourists, a language can become a marker of authenticity and heritage at the same time.

Strategically using a minority language can make a difference for businesses. Ever more often, the English language is used as a commodity to create economic value, and this can happen to other languages as we have seen with Chinese. On the one hand, a language may be commodified as an authentic object and, on the other hand, a language such as English may become a commodified skill in a global economy (Heller, 2010). This duality was central in the study by Banda and Mokwena (2019) who examined advertisements in the linguistic landscape of the Northern Cape Province in South Africa. The authors connected the commodification processes of the dominant language, English, with the local languages Setswana and Afrikaans. There was competition between English and the local languages, with the latter becoming commodities in three ways: first, through the economic use of African languages and increasing multilingualism; second, by using marketing tools to make the discourses obscure and exotic; and third, by attracting local customers through the use of African languages.

Another term closely related to commodification is the mere tokenistic use of a minority language. Tokenistic use is a kind of decorative but not a real functional or economic use, leading to limited visibility of a minority language (Van Mensel *et al*., 2012). It is different from commodification because it does not create any market value for the minority language. The idea behind tokenistic or folkloric use of minority languages could be to minimally satisfy the demands of activists and to have a few signs put up in the minority language, e.g. some street names or place names. Tokenistic use can also occur as a way of ‘branding’ an area or a town with the aim of attracting tourists. Coupland and Garrett (2010) found that Welsh as a minority language was used on signs for the branding and marketing of Welshness in the Welsh immigrant community in Argentina. Similarly, Cunningham and King (2021) showed that the use of Māori at an airport in New Zealand was mainly for tourists. In such cases, the presence of the minority language in public domains

reflects a desire to be identified as authentic in order to attract tourists or other customers, and token use can turn into commodification when it obtains added economic value. The idea to give a flavor of authenticity is related to commodification.

Even limited visibility of a minority language can signal co-existence in a certain location or territory and it can have symbolic importance, but at the same time the language risks getting further marginalized. It seems doubtful that the token use of a minority language contributes to its vitality. This may create a dilemma for language activists because there is no escape from such a mutually conflicting situation. For example, the use of the minority language Manx seems to be largely a symbolic display for tourists (Sebba, 2010). The effect may be some superficial recognition for the language. Salo (2012) demonstrated for Sámi languages that decorative or emblematic use could prevent steps toward survival. Salo argued that increasing visibility for a minority language related to tourism or popular culture may have positive but also negative effects. It could be a positive step that the language is recognized as part of the modern world and goes against delegitimizing the minority culture as anti-modern. On the negative side, however, mere decorative use can reduce the functional use of a language by making it part of folklore. Salo (2012) thinks that both are happening at the same time.

Merely symbolic or emblematic use may lead to sidelining a minority language instead of promoting it and this may assign the minority language a role as a mere museum piece. As a consequence, the language becomes detached from other modern-day functions. In contrast, it might also be argued that even minimal use creates new contexts for advanced use and increases the value of the minority language. The benefits of tokenistic use or commodification are, to say the least, ambiguous for speakers as members of minority language groups (see also the concept of touristification in Chapter 12).

7.7 Concluding Remarks

In this chapter, we have reported on several case studies that looked from the specific angle of the linguistic landscape at the visibility and presence of one or more minority languages. Above we gave a description of 24 cases, half of them from Europe and the other examples from other continents. As we indicated in Section 7.1, minority language groups can be found all around the world.

Mendisu *et al.* (2016) consider the visibility of minority languages in multilingual settings of most fundamental importance to the field of linguistic landscape studies and they warn against overlooking this phenomenon in the ongoing diversification of objects of study, theories and methods. In this chapter, we have placed the visibility of minority languages as the core issue throughout our presentation. In the preceding

pages, we have amply illustrated its significance in the comparison of the various cases in different parts of the world.

Important functions of the visibility of a minority language in the linguistic landscape are first, to highlight the identity of the language group; second, to contribute to its vitality; and third, to empower its speakers. A basic assumption is that a solid presence in the linguistic landscape can contribute to a more sustainable future for a minority language group. An additional function of having a presence in the public arena may be related to the marketing of the language for commercial purposes. The choice of a minority language on signs can add a flavor of authenticity and contribute to attracting customers for certain products, in particular in the tourist sector. Becoming a saleable commodity can lead minority language groups to a process of commodification with ambiguous outcomes.

In every context there is a unique constellation of hierarchical language relationships. For a minority language group, the language hierarchy of the linguistic landscape is an important variable because some languages are dominant and more powerful while others are subordinated or neglected, which can have serious consequences for the social groups that speak those languages. Existing hierarchical relations between languages can be recreated, continued and also contested through the way in which languages are publicly displayed. Examining when, where and by whom a minority language is used on public signs, either on its own or combined with a majority language or other languages, can provide relevant insights into the power structures of a society.

Most of the languages we have dealt with have to be categorized as endangered (Moseley, 2010) and the efforts to safeguard them are usually too weak to ensure a sustainable future for minority languages. There is some debate in the literature over whether linguistic landscapes do reflect the relationships between different language groups in a society. Our idea is that it is better to think of the public display of languages as a 'carnival mirror' (Gorter, 2013; see Section 3.12) because the importance of some languages or varieties is enhanced, while the presence of others is reduced. Minority languages at the lower end of the hierarchy of languages may not have any visibility at all. We have tried to make this clear with our continuum of presence and visibility.

For most of the minority languages some efforts at protecting and revitalizing them are undertaken, supported by state, regional or local governments and by numerous NGOs. Our presentation of 24 cases is able to demonstrate that official recognition, supportive language policies and positive language ideologies do have an impact on visibility, but they are no guarantee for an overall strong presence of a minority language. Almost by definition a minority language has to compete with a majority or dominant language. We have also shown that linguistic landscape studies are relevant for the whole continuum of the presence of minority

languages in public spaces. The results of the various studies provide evidence for this and allow us to gain a better understanding of minority language groups. The studies can have an effect on the improvement of language policies in minority contexts, and perhaps lead to changes in power hierarchies and deep-seated language ideologies.

As we stated in the introduction, various interesting questions have been asked and can be asked in this context. Some examples are as follows: 'Where and when is the display of specific languages contested and by whom? Which arguments are used in the struggle and what underlying ideologies do they represent? In what ways are these conflicts part of a larger societal context?' and 'How is it related to language policy?' (for further questions, see Marten *et al*., 2012a: 7). The latter question on language policy is central in the next chapter.

8 The Influence of Language Policies

8.1 Introduction

When an establishment in the city of Donostia-San Sebastián puts up new signs in Basque, the local government is prepared to pay for 50% of the costs (up to a maximum of 500 euros). This measure is part of the local policy to encourage the use of the minority language Basque in the commercial sector. This is a clear example of authorities trying to influence which languages are used on signage. Regulating languages on public signs is part of language policies around the world, although few governments are ready to pay for commercial signs written in an endangered minority language. We included language policy as one of the five components of the multilingual inequality in public spaces (MIPS) model (see Chapter 3) because it can be a major factor influencing the presence or absence of languages in linguistic landscapes. As we argued when we explained the MIPS model, various social actors develop policies at different levels and are thus contributing to the design, construction, negotiation and even contestation of languages on signs.

One can argue that, in general, the authorities have a fairly large influence on what passersby can see and read on signs in the streets. Language policy measures can regulate and obviously do influence the linguistic landscape, but usually such measures do not determine all of it fully because many other factors co-determine the outcome of the totality of signs. The development and implementation of language policies and actual sign practices stand in a reciprocal relationship with each other and actors at different levels collectively shape linguistic landscapes. Changes in language policy may lead to changes in linguistic landscapes and, at the same time, the actual practices in the linguistic landscape can feed back into language policy development and so on, in a cyclical way; this is illustrated by the feedback loop in the MIPS model. Undoubtedly, the field of language policy and planning is of utmost importance for the study of linguistic landscapes.

In this chapter, we explain in Section 8.2 the important relation between approaches to language policy and planning and linguistic

landscape studies. In Section 8.3, we examine the cases of Quebec in Canada and Brussels in Belgium because these two contexts are exemplary for studies that link language policy and linguistic landscapes. In Section 8.4, we focus on language policy in the Basque Country and our own work in that context. In Section 8.5, we delve into the developments of new language laws and policies in post-Soviet states and the changes for the linguistic landscapes this implied. In Section 8.6, we present some outcomes of further studies that have taken a language policy perspective as their point of departure. Finally, in Section 8.7, we make some general concluding remarks.

8.2 Language Policy and Planning Research

The field of language policy and planning (sometimes abbreviated as LPP) has seen an important development. Ricento (2000) distinguished three partly overlapping periods. The first phase started in the early 1960s and focused on decolonization and state formation, the need for a unifying language and the conviction that language problems can be solved through a kind of technocratic planning. The second phase lasted from the early 1970s to the late 1980s and was characterized by themes of neocolonialism, the hierarchization of languages and the realization that it is virtually impossible to plan and control society. The notion of language as a discrete, finite entity was called into question, along with concepts such as the native speaker and mother tongue. Existing models were seen as limited and ideological. The focus shifted to language communities, beliefs, attitudes and sociopolitical factors. The third period in language policy research is characterized by the forces of globalization, attention to language endangerment, the ecology of language and human rights approaches, and also by critical and postmodern theories. Debates on the limitations of language planning, and promoting social change are both important. Ricento (2000) points to the need to develop a conceptual framework that brings together the (micro) patterns of language use with the macro sociopolitical forces influencing language at the level of societies as a whole. For Kaplan and Baldauf (1997: 3), the core of the field could be expressed as follows: ‘in the simplest sense, language planning is an attempt by someone to modify the linguistic behavior of some community for some reason’. More formally, Kaplan and Baldauf (1997: 3) define language planning as involving ‘deliberate, although not always overt, future-oriented change in systems of language code and/or speaking in a social context, [… mostly] undertaken by government’. They recognize that language planning also occurs in other societal contexts and at other levels than only the state government.

A common distinction is made in the literature between ‘status planning’, regarding the use of language in society, and ‘corpus planning’, concerning work on the language system itself. As we will see later, some

linguistic landscape studies have also applied this distinction between status and corpus planning. Cooper (1989) added the third dimension of 'acquisition planning', which refers to language teaching or a range of learning activities. Language policy and planning usually also imply a form of legitimization by an authority or the activities of a government body. The combination of micro and macro perspectives is another trend in the field of language policy studies and a linguistic landscape lens can most certainly provide a link between those perspectives.

After making a summary of various definitions and approaches, Johnson (2013: 9) asked rhetorically 'What isn't language policy?'. He answered this by providing an alternative definition of language policy as 'a mechanism that impacts the structure, function, use, or acquisition of language'. His focus is thus on policy mechanisms, while including elements of earlier definitions about status, corpus and acquisition. Reflecting on the usefulness of the concept of language policy, Li and Kelly-Holmes (2022: 11) observed that studying language policy too often 'forces complex problems into simple frameworks'. They suggest that during our lives all of us constantly make language policies, and we do so every day when we try to control the language use of ourselves and others. This viewpoint could imply that everything we do with language is language policy. However, such an idea may also make the concept empty because when all is language policy, it loses its explanatory power. Li and Kelly-Holmes propose a choice between a better understanding of language policy as a concept and developing it further, or discarding it altogether. Our point of view is that language policy as a concept is of great importance for linguistic landscape studies because policymakers, at different levels, develop rules and regulations that try to modify the public display of languages on signs. Of course, language policy can also be developed by actors other than policymakers, for example, by a language activist, in a family or in a school. We see different language policy approaches as relevant to analyze linguistic landscapes in different contexts and we mention some of those approaches in the following sections.

In the context of multilingualism in India, Dasgupta (2002) presented a theoretical perspective on linguistic landscaping, which he sees as an intentionally designed activity. For him, a linguistic landscape is not fully predetermined or static because other actors can introduce new unknown designs. Along these lines, Singh (2002) conceived of linguistic landscaping as part of language planning. For him, it is an organized intervention that adds to the functionality of a language, similar to developing a script or reforming a spelling. Both Dasgupta and Singh point to the importance of actors who are actively shaping the linguistic landscape, hence their preference for using linguistic landscaping as a verb. This is in agreement with our ideas on the importance of the actors who co-construct the linguistic landscapes (see Chapter 3 for our MIPS model; also Chapter 12).

Spolsky (2009a, 2009b, 2020), one of the pioneering researchers of linguistic landscapes (see Chapter 2), incorporated the study of 'public verbal signs' into his general theory of language management. The framework he developed consists of three components: (1) language practices, that is, the decisions speakers make about language use; (2) beliefs about language, that is, the ideology and the attitudes toward languages; and (3) efforts or interventions to modify existing practices or beliefs, or both. Language policy implies active intervention and the linguistic landscape is part of the language practices in a community. Spolsky's framework of language management includes not only explicit regulations coming from a government, but also, for example, management by an individual, inside a family or an organization. Spolsky's framework has gained some influence among linguistic landscape researchers as we will see later in the chapter.

Shohamy (2006), another pioneering scholar in the field of linguistic landscape studies, continued along the lines of Spolsky. She portrayed the linguistic landscape as a public arena where language battles take place and where the choice of languages can be a struggle over power, control, national identity and self-expression. Linguistic landscape items are mechanisms of language policy that can perpetuate ideologies and the status of certain languages and not others. Shohamy (2006: 129) argues 'language in the public space… can also serve as a mechanism for resisting, protesting against and negotiating de facto language policies'. Shohamy (2015) further suggests that linguistic landscape studies can trigger activism against existing policies. She thus emphasizes the role of conflict among actors shaping language policies.

In a similar vein, Rubdy (2015a) discussed how language policy processes often give rise to conflict and protest in societies because they are related to various historical, legal, economic and political issues. Language policy can spread the dominant language ideology through linguistic landscapes, where signs can reflect the prioritization of one language and the exclusion of others. Linguistic landscapes can become arenas of contestation or sites of dissent and struggle between social groups, often based on clashes of identity or contrasting language ideologies, leading to social disputes linked to power differences and social justice. Various scholars have included the dimension of conflict and protest in their work, and Themistocleous (2019) sees a growing number of studies that explore areas of conflict. Some examples are provided in Section 8.6.

A useful proposal of direct relevance for the relationship between language policy and its effects on linguistic landscapes was included by Pavlenko (2009) who discussed the transformation of linguistic landscapes in post-Soviet republics. Pavlenko distinguishes between five processes of change and conflict that become visible in public signage. Those processes have a direct effect on what languages can be seen in public spaces.

The five processes can be summarized as follows (and in later sections we illustrate them with some examples).

(1) The erasure or the deliberate removal of signage in a particular language as part of the language policy of the authorities. There are three different ways that may be applied in parallel. First, replacing old with new signs, completely excluding the unwanted language. Second, the partial deletion of bilingual signs, for example, by painting over one part of a sign. Third, the modification of single letters, especially for related languages using the same script. Obviously, changing signs completely is the most expensive and most radical way, and leaves no traces. Further, it is clear that the erasure of one language can lead to the emergence of another language; in that sense it can be closely related to or partially overlap with the second process.
(2) Replacement, which happens when a new language takes over the functions of a language that has been removed. For example, bilingual signs maintain the official language, but a second language is replaced by another.
(3) Downgrading or upgrading the status of a language in public signage. Erasure and replacement are extreme cases of downgrading, but status change can be done in other ways as well. For example, it can take place through changes in prominence, order, font size, color or the amount of information in each language on bilingual signs.
(4) The regulation of language choice by speakers. This involves attempts to manipulate language use through placing signs that indirectly encourage or invite people to learn and/or speak particular languages. Or, it can also be a more direct type of signage urging people to speak a particular language 'here and now'. Signs promoting the correct use of particular languages are also trying to regulate the way people speak.
(5) Transgressive signs that violate conventions on emplacement, or subvert official policies on the choice of language or script and can also be creative language use.

Among others, Du Plessis (2011) has applied this proposal in the context of South Africa. He described the processes as methods used by the authorities to produce intended language shifts in order to change the linguistic landscape. Du Plessis argued that the measures most likely to be selected depend on the type of language ideology adhered to by the authorities, either assimilationist and hegemonic or in contrast, moderate and pluralist (see Section 8.6).

The linguistic landscape can be one of the most obvious displays of language diversity and therefore the authorities may try to wield their power to give preference in enhancing the visibility of certain languages

and excluding or diminishing the presence of others. Obviously, linguistic diversity can be displayed through signage, but most of the time signs in the majority language tend to prevail. The dominant language group, often representing the official state language, may set up mechanisms of language policy that are aimed at barring other languages from being visible in public spaces. In many states, legal measures are enforced that privilege one language, which often implies the marginalization of other languages. Authorities, also at lower levels of government, can regulate language use on official signs (and sometimes on unofficial signs) as a mechanism for imposing some language as dominant and others as dominated. Often, such language policies can be legally enforced, but sometimes they will be visibly contested or actively resisted in public spaces. This can signal to passersby a struggle over language rights and status. The conflict may not only be over which language to use, but also about the position or the prominence of the languages on signs.

The power of the majority group may be contested when minority language groups fight to obtain or maintain the visibility of their languages (Marten *et al.*, 2012a). It is even possible that languages are allowed, or encouraged, but that existing traditions, entrenched language ideologies, negative attitudes, habits or lack of literacy create a gap between formal policy and actual practice. Such a gap can, in turn, lead to tensions in society over the display of one or more languages. Strong disagreements may occur and litigation can happen. Signs are also a central aspect of the way protest movements and other forms of activism make themselves visible to wider audiences. Protest signs have been investigated by several researchers as a type of linguistic landscape data (again see Section 8.6).

An investigation of a linguistic landscape from the perspective of language policy can be accompanied by an analysis of legal arrangements, such as laws, regulations, sign ordinances and other policy documents. Formal regulations of signs may have important consequences for the language used for display, and can include other moral or legal aspects, or regulate physical dimensions (size, color, etc.). Many states, provinces and cities have developed precise and far-reaching legal measures regarding language use on signs. The aim of a study into the measures required could be to compare the existing formal arrangements with an inquiry into actual language practices in a given jurisdiction. Official laws and rules deal primarily with signage over which authorities have direct control, such as road signs, street names, place names and government building signs. In this context, the distinction between signs as 'top-down' and 'bottom-up' has gained some traction. The so-called 'top-down' policies are carried out by governmental agencies, which determine language policies and can thus regulate the use of languages on signs according to the law. This can be distinguished from 'bottom-up' policies by private initiatives, organizations and companies, as well as by grassroots movements and individuals (Ben-Rafael *et al.*, 2006). The distinction is not

always clear-cut and, for example, Demaj and Vandenbroucke (2016) have suggested adding a third, intermediate category of 'semi-official' signs. Those are signs placed by agencies and other institutions that were formerly government controlled, but due to privatization are no longer strictly bound by official language policy. In their study of the linguistic landscape of Pristina, the capital of Kosovo, they found substantial differences in the three types of signs between the use of Albanian, Serbian and English.

France is probably the example par excellence of a country with a strong language law, the so-called Toubon law, introduced in 1994. The law obliges the use of the French language in government publications, advertisements and in other contexts and restricts the presence of other languages than French in the linguistic landscape (Blackwood & Tufi, 2015). Other languages are only allowed when there is a translation and as a consequence the French language dominates in public spaces. Since 2014, regional languages are recognized as part of the national heritage and the Toubon law no longer opposes the use of regional languages. Yet, the ideology of 'one nation, one language' continues to be reflected in the linguistic landscape and in debates around it. Language beliefs and language practices systematically delegitimize regional minority languages as anti-modern. As Blackwood and Tufi (2012: 113) argue, language policy in France is 'focussed squarely on establishing and then maintaining France as a monolingual entity'. In their extensive study of the linguistic landscapes of a series of Mediterranean cities and regions, they found French on an average of 85% of all signs. However, to them it is striking that 15% of the signs did not have French. Most of those signs were in English and very few were in one of the regional languages (Blackwood & Tufi, 2015: 262–263; in Chapter 9 we discuss the role of English in their study). Blackwood (2011) concluded that the supremacy of French in France is not challenged at all by any of the regional minority languages because overt (and covert) language policies prevent their use. Other countries with strict language policies could be mentioned, for example, Malaysia (Manan *et al.*, 2015) or Tanzania (Legère & Rosendal, 2019) (see Chapter 9). In countries without strong language policies, such as Germany and the Netherlands, the dominant mindset is probably that monolingualism has to be seen as normal or is taken for granted, which, in turn, can restrict the use of other languages on signage, except for prestigious varieties such as English.

Linguistic landscape items can thus be mechanisms of language policy that can perpetuate ideologies and raise the status of specific languages and lower the status of others. The aims of the authorities may be to stop the spread of English or to discourage the use of minority languages. In other cases, signage in public spaces is included in policies that are designed to protect and promote a minority language, as in Catalonia (Comajoan Colomé & Long, 2012) and in the Basque Country (see Section 8.4).

As indicated before, language policy and planning as a field is of great relevance for linguistic landscape studies. In the next section, we discuss the direct link between language policy and the public display of language by examining the cases of the province of Quebec in Canada and Brussels, the capital of Belgium, as examples of far-reaching language policies.

8.3 Two Illustrative Cases: Canada–Quebec and Belgium–Brussels

It was in the field of language policy and planning in the contexts of Canada and Belgium that issues related to the concept of linguistic landscape emerged (Landry & Bourhis, 1997: 24). In Chapter 2 on the history of the field, we briefly discussed the cases of Quebec and Brussels as kinds of birthplaces for the study of linguistic landscapes, partly due to the language conflict over the use of English and French in Quebec and the struggle between Dutch and French in Brussels. We also mentioned that both contexts have continued as a productive seedbed for further linguistic landscape studies. Here, we elaborate on this further by focusing on studies that are directly related to language policy and planning in Canada, in particular the province of Quebec, and in Belgium in the bilingual capital of Brussels. In both contexts, the linguistic landscape is used as a device to enforce specific language policies.

8.3.1 Canada: English as dominant language and French as minority language

The struggle of the Francophone minority in Canada for recognition of the French language is a notable example of the development of language policy in relation to linguistic landscapes. French speakers are a numerical minority in Canada as a whole, but a majority in the province of Quebec. Several years of conflict over language rights resulted in the Official Language Act, which made French the only official language of Quebec. Evidently, the law was an effort to counter the spread of English and give rights to the Francophones. The status of French was further elaborated in the Charter of the French Language and later amendments. The charter requires, among others, that all commercial signage and advertising be in French. Later, those measures were somewhat relaxed and English and other languages are now accepted on signs, as long as French is given predominance, that is, the French text should be twice as large as the other language (see Backhaus, 2009; Leimgruber, 2019). Perhaps it did not come down to the direct erasure or complete replacement of English, but at least the status of English was downgraded. It is evident that Shohamy's approach in which the language choice on signage is a struggle over power, control and identity fully applies to the context of Quebec. The signs are also mechanisms for resistance and protest because some shop owners developed creative counter-strategies.

On their signs they play with the use of French and English in so-called 'bilingual winks' (*clins d'oeil*) to circumvent the regulations, but without breaking the law. An example of such wordplay is a shoe store called *Chouchou* (pronounced shoe-shoe) which in French is a term that can refer to 'favorite' (Lamarre, 2014). Obviously, those are transgressive methods (Figure 8.1).

Backhaus (2009) analyzed the regulations on the use of French introduced by the government of Quebec, the most important of which have already been mentioned above, and he then contrasts and compares those regulations with the rules on the use of English and other foreign languages implemented by the authorities of Tokyo. He situates the two cases on opposite poles of a broad spectrum of policies to shape linguistic landscapes. In his conclusions, Backhaus states that although the linguistic landscapes in Quebec and Tokyo represent very different contexts, they are similar in form. He further assumes that rules and regulations about linguistic landscapes usually address both status and corpus planning issues.

Figure 8.1 Point Zero advertisement in Montreal

Leimgruber (2019) also discussed the language policy developments in Quebec and in particular in the city of Montreal. He argues that studying the linguistic landscape can provide evidence for the trend toward Frenchifying that already started in the 1970s, thus underlining the importance of a diachronic perspective. The linguistic landscape reflects not only the hierarchical relations between French and English, but also the struggles and insecurities surrounding the production of signs. Leimgruber (2020) studied the signage in St Catherine Street, an 11 kilometer thoroughfare in Montreal. He observed ongoing interactions between top-down language policies by the government and forces of globalization, including international brand names that display multilingualism. The various studies mentioned all show how the authorities in Quebec try to use language policy as a mechanism to define the use of languages in public space, in particular French.

8.3.2 Belgium: French as dominant language and Dutch as minority language

As we mentioned in Chapter 2, language conflict is often seen as a distinctive trait of Belgium and its language struggle is notorious (Janssens, 2015). Over a long period, legal arrangements were put in place that effectively divided Belgium into officially French and Dutch monolingual territories, with a small area in the east where German is an official minority language. The main exception is Brussels which was officially declared bilingual in the 1930s. In Brussels, one of the earliest studies focused on languages used on signage (Tulp, 1978; see Chapter 2).

The case of Brussels has remained an interesting example over the years because in this city the government enforces an elaborate set of rules for the equal use of both official languages Dutch and French on street name signs, in metro stations, etc. Unlike Quebec, language choice on private signage is left unregulated. Various linguistic landscape studies on Brussels point to the dynamics of the language conflict between Dutch, numerically the minority language, and French, the dominant language. Vandenbroucke (2015, 2016) observed an increase in language diversity generated by demographic shifts and the impact of globalization on Brussels. She argued that the diversity of the population, particularly in light of the arrival of different migrant minority groups, is 'not fully or representatively reflected in the visually displayed landscapes of the city' (Vandenbroucke, 2015: 178). Over a period of four decades, English has spread throughout the public space and even if English quantitatively remains in a minor position, it increasingly serves majority functions (Figure 8.2).

Ben-Rafael and Ben-Rafael (2012) showed an intelligible reality underlying the seeming chaotic and complex linguistic landscape in this

Figure 8.2 Seeming chaotic English, Dutch and French signs in Brussels

diverse city. In their monograph on globalization, Ben-Rafael and Ben-Rafael (2019) included a discussion of the linguistic landscapes of various neighborhoods of Brussels and they argued that Brussels today is not all that different from other global cities. In fact, in superdiverse cities English has gained a remarkable presence caused by different forces of globalization. Janssens (2012) studied the so-called 'Flemish periphery' of Brussels where a heated language battle has been fought because of the special services for the numerical minority of French speakers. In the linguistic landscape, conflicts are played out between French and Dutch speakers. Local authorities enforce the use of Dutch in the linguistic landscape through campaigns (the soft approach) and by blurring the legal limits of federal legislation (the hard approach). A form of partial language erasure is the common painting over of the French part of bilingual signs.

Mettewie *et al*. (2012) analyzed some ambiguous 'bilingual winks' in which Dutch and French are mixed on signs, in a kind of wordplay that cleverly breaks up the official language policy of Brussels. In some ways they can be considered transgressive signs; for example, in signs such as 'bozar' (a short name for the museum *Palais des beaux arts* in French) or 'bootik' (French: boutique, Dutch: boetiek) for booths selling public transport tickets. Both signs led to public protests when they were introduced because such hybrid forms were viewed negatively by the public. It seems that bilingual winks have drawn more attention in Brussels than in Montreal, probably because of differences in language policy. An important difference between the two cities is that there is a kind of silence about signage among the public at large in Montreal, but

there was a public storm of protest over this controversial use of hybrid forms on signs in Brussels.

What we can learn from the two cases of Quebec in Canada and Brussels in Belgium is confirmation that language policy and planning has an important role in shaping the linguistic landscape. However, at the same time, the two cases make clear that policy does not and cannot completely regulate what appears on signs and what languages will be visible. In terms of the different periods of language policy and planning distinguished by Ricento (2000), we can observe that in Quebec and Brussels there was at the beginning of policy development a technocratic idea of fully regulating signage. Later, the regulations were contested and became less rigid also due to an increasing awareness that linguistic landscapes cannot be fully engineered. The two cases show that language ideologies underlying policies play an important role. Today, also in these two cases, the forces of globalization and concurring diversity are felt and hybrid forms of, respectively, English and French and of Dutch and French are visible on signs. On top of that, various other languages are visible, including big commercial names, international slogans and icons. Language management is important, but so too are the beliefs and ideologies of the actors involved, as well as the actual language practices, using the terms of Spolsky's three-part model. Shohamy's addition of conflict and contestation to the thinking about language policy was somehow always obvious for actors in the two cases of Canada and Belgium. The five processes distinguished by Pavlenko seem to apply to some extent in these two contexts. For instance, the authorities in Quebec legally ordered the replacement of English with French in a bid to upgrade the status of the French language. Moreover, 'bilingual winks' are examples of transgressive signs in both contexts, where minor spelling differences can have major consequences and private initiatives such as painting over signs have occurred.

In our work in the Basque Country, we have included investigations of the influence of language policy on the linguistic landscape, as we illustrate in the next section.

8.4 Upgrading the Status of Basque in the Basque Country

Since the 1980s, the regional government of the Basque Country has developed a strong language policy of 'normalization' for the minority language. The policy aims at the recuperation and revitalization of the Basque language alongside Spanish. The various measures undertaken have been especially successful in establishing Basque as a medium of instruction in education (Gorter *et al.*, 2014). There is a wide spectrum of policy support for the use of Basque in the media and in cultural sectors, as well as in the domains of work and commerce (Van der Worp *et al.*, 2018). Substantial economic investments are made on behalf of

the language, in combination with human effort and social activism. A strong commitment to revitalize Basque can be observed at both regional and local levels of government and in parts of the private sector. Therefore, the language policy rests on strong political and public support. Language beliefs and ideologies, language practices and interventions to modify signage are all largely aligned in society. Outspoken opponents of Basque are few; some may voice their ideas against Basque on social media, but they do not seem to influence policy. Overall, the language policy to protect and promote Basque can be characterized as robust, although in spite of this Basque is listed in the category 'unsafe' by the UNESCO (Moseley, 2010).

The policy aims are to promote an equal place for Basque and Spanish on public signs. Official signage is, in theory, always bilingual in the two languages, based on the principle of equality of both official languages. Regarding the layers of government, the language policy is developed and implemented at the level of regional, provincial and municipal governments, but not at the level of the Spanish state. A decree by the regional government orders that Basque should have a presence in public institutions, as well as in services of general interest, such as transport, utilities and communications, including large private commercial establishments (Basque Government, 2008). It can be observed that not everyone agrees with this principle of bilingualism in the linguistic landscape because there are contestations in painted-over signs. Here, activists use transgressive methods to indicate their preference for Basque over Spanish. In that sense, a continuous battle is waged over the place of Basque in the public sphere (see example in Figure 11.4). Of course, the painting over signs contesting a so-called wrong language is an activity well known among minority language groups (Puzey, 2012a).

The language policy of the different layers of government thus focuses on Basque and Spanish as the official languages and other languages remain 'unregulated' even when they are spoken in society or can be seen in the linguistic landscape. English has obtained high prestige in society and the language continues to spread as a consequence of globalization processes (see Chapter 9). Various other languages, such as Arabic and Chinese, can be observed on a small number of signs. In the case of commercial establishments, those languages seem to be used mainly for symbolic or identification purposes, more than for economic value.

The transformation of the educational system, which provides a substantial place for Basque medium instruction, also has important consequences for the linguistic landscape. It is clear that schoolscapes contain a considerable amount of Basque (Gorter & Cenoz, 2015b). More importantly, literacy in Basque among the population has gradually but substantially increased in recent decades. This implies that, today, texts in Basque can be read and understood by a large majority of the inhabitants and are no longer seen as an obstacle, as may have occurred in the past.

In the city of Donostia-San Sebastián, the proportion of the population that can speak Basque has increased considerably from 26% in 1986 to 46% in 2016, while the percentage of 'passive bilinguals', people who can read and understand Basque, has remained stable at around 19%. These are the figures presented in the General Language Plan 2020–2024 in which the local government has developed its own local policy to promote the use of Basque in different domains, including in the public space (Municipality of Donostia, 2020). The plan is aligned with the language policy of the regional government and its overall mission is formulated so as 'to make advances in the recuperation and dissemination of Basque' (Municipality of Donostia, 2020: 52). The local government aims to promote using Basque on signage, including in private companies and commercial establishments. For example, there are specific campaigns to encourage and subsidize the use of Basque in shops (as we mentioned in the opening sentences of this chapter). Language campaigns were also developed to encourage citizens to use Basque more often, thus serving as a method to regulate language choice, as mentioned by Pavlenko (2009) (Figure 8.3).

The outcomes of our classic study of the linguistic landscape of Donostia-San Sebastián seem to have had an effect on the local language policy (Cenoz & Gorter, 2006; see Chapter 2). The policymakers were surprised to find out that after many years of promoting bilingualism, Spanish-only signs were more frequent than they had expected. Although the authorities did not consult us, they seem to have acted on the outcomes

Figure 8.3 Language promotion campaign: 'hemen ere euskaraz' (here also Basque)

of our study in the further development of their language policy plans. An example of a new policy is the replacement of all street name signs from a strict bilingual approach to a subtly more Basque approach, leading to interesting examples of alternation and blending. This replacement of all old street signs with new signs is an obvious example of a policy change in which the minority language is no longer placed on an equal footing with the majority language, but instead is given preference where possible (example in Figure 6.4 and see our study on name changes in Section 11.4). In the same vein, many cities and towns across the Basque Country have started campaigns to 'Basquisize' the linguistic landscape.

In another study based on street interviews, we found that a large part of the population appreciated and even preferred signs written in more than two languages. The attitude of the population was largely positive toward multilingualism as a characteristic of the linguistic landscape (Aiestaran *et al.*, 2010). One could also say that there was an alignment between beliefs, practices and interventions in terms of Spolsky's (2009b) model of language management.

In Gorter *et al.* (2012b), we argued that laws, decrees, promotional campaigns, other rules and regulations, and other measures help to shape the linguistic landscape. We wanted to investigate the local language policy efforts to revitalize Basque and the effects on the linguistic landscape in more detail. We thus examined several promotional measures to support Basque. One of the research questions looked into the relationship between the language policy and the languages used on signs and we examined how far what can be seen on signs is determined by policy decisions. Our results came from a large quantitative inventory of the signage in five neighborhoods of Donostia-San Sebastián. We collected a sample of 2,024 units of analysis: establishments such as a shop, bank, real estate agency and bar were counted as one sign as was a single street sign (see Cenoz & Gorter, 2006; see Chapter 4). The map in Figure 8.4 represents the main outcomes for the use of Basque on signage in the five neighborhoods.

The map shows that there were substantial differences between the five neighborhoods of the city. On average, less than half of all signs had at least some Basque. In the neighborhoods old part (59%) and Antiguo (53%), over half of the signs had at least some Basque, but in the city center (33%) and Amara (36%) Basque was included in just one-third of the signs. Our conclusion was that the effects of the policy to promote Basque were clearly visible in the linguistic landscape, but the results also demonstrated that the language policy did not have the same impact on all neighborhoods and we found substantial differences between commercial sectors. From the case of the Basque Country, we have learned that language policy can make a substantial contribution to shaping the linguistic landscape at local and regional levels. At the same time,

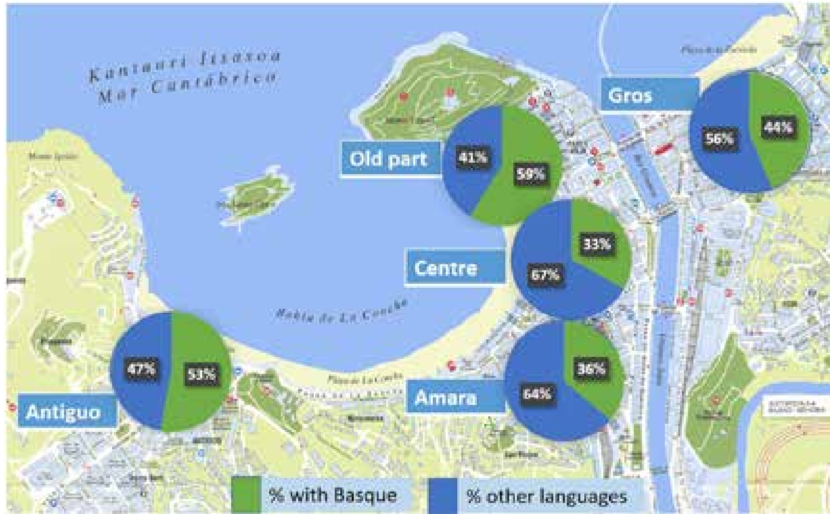

Figure 8.4 Distribution of Basque on signs in five neighborhoods in Donostia-San Sebastián

language policy is not a technocratic process and it is impossible to fully control signage, among other reasons due to forces of globalization that have an important effect on an endangered minority language such as Basque.

The official policy can be mainly characterized as upgrading the status of Basque, in terms of the five processes described by Pavlenko (2009). The authorities intend to add the minority language to the linguistic landscape without erasing or replacing Spanish, although it is not uncommon for language activists to paint over parts of signs in Spanish. Language campaigns are regularly organized to encourage the use of Basque, which are activities that would fit the process of the regulation of speakers' language choice (see Figure 8.3).

After discussing language policy studies in Canada and Belgium and our own work in the Basque Country, in the next section we turn to changes in post-Soviet states, and in Section 8.6 we discuss a number of cases studied and some applications of Spolsky's three-part framework.

8.5 Changes in Linguistic Landscapes in Post-Soviet States

As we mentioned in Section 8.2, Pavlenko (2009) examined the large-scale derussification shifts which appeared in the 14 newly independent states that were established as a consequence of the break-up of the Soviet Union in 1991. Similar language policy processes have taken place in those former Soviet republics, and they all share an upgrading of the

status of the official state language and a downgrading of the status of Russian, which is reflected in public signage. In Section 8.2, we summarized the five processes of change and conflict distinguished by Pavlenko (2009), which Du Plessis (2011) conceived of as language policy methods: erasure, replacement, upgrading and downgrading, the regulation of language choice and the transgressive use of signs. Pavlenko (2009) emphasizes that the processes have not evolved in the same way in the various countries and even inside each country they can vary over contexts and between cities. Pavlenko (2009) further mentions how certain population groups, in particular older people, were annoyed by the replacement of Cyrillic with Roman letters and by the introduction of English. In some cases this caused tensions because the changes were imposed by government policy. At the time of writing, only a limited number of linguistic landscape studies had been carried out in the 14 countries and Pavlenko insisted on the need for further studies into the replacement of Russian and the emergence of English.

We already mentioned Pavlenko's (2010) diachronic study of the linguistic landscape of Kyiv in Ukraine as a fine example of a historical approach (see Chapter 3). In independent Ukraine, the only official language is Ukrainian, unlike in Soviet times. Pavlenko (2010, 2012) describes how at the time when she conducted her studies, the signage in Kyiv appeared mainly in Ukrainian, especially in official signs. In commercial signs, a shift was taking place in which Russian was replaced by English in bilingual signs, although Ukrainian, Russian and English still appeared. In private signs such as graffiti and personal ads, all three languages were also used. She explained the perseverance of Russian 'by the fact that Russian remains the dominant language of everyday interaction in Kyiv, even though the city's institutions and educational establishments function in Ukrainian' (Pavlenko, 2010: 148). Kyiv was bilingual, or trilingual with English. Back then, Pavlenko (2012) could label the prolific use of Russian in Kyiv as a tacitly accepted transgression of the official state language policy. It was a situation similar to Chişinău in Moldova as reported by Muth (2012). However, after the Russian invasion and the ensuing war in 2022, undoubtedly the amount of Russian visible in the streets of Kyiv, as in the rest of Ukraine, will have sharply decreased.

In a publication on multilingualism in general, Pavlenko (2013) mentioned how in the 1990s there was an intensive phase of derussification in the post-Soviet countries in various societal domains. The social, political and economic changes had a profound influence on the presence of various languages in the public sphere. The shift away from Russian and toward English was accompanied by an increase in the visibility of the official state language, often accompanied by the introduction of new language laws. The processes did not happen in the same way or to the

same extent in all the post-Soviet countries or in Eastern European countries that are former satellite states of the Soviet Union.

The general pattern in these states is that the official state language is displayed as the most prominent and the most frequent language on signage, usually supported by legal provisions. In all countries, the presence of English has increased and has significant visibility today. The position of Russian varies between countries; in some cases it has disappeared (almost) completely, in others it plays a minor role, and in some cases Russian is still visible to a substantial extent. The internal variation in a country can be well illustrated by Brown's (2007) study in Belarus (also mentioned in Pavlenko [2009]). Brown showed that the amount of Belarusian and Russian varied from the dominance of Russian in 1984, Russian only in 1986, equal use of both languages in 1991 and the dominance of Belarusian in 1997. Further, he could show variation between signs in different metro stations and on official signs, as well as between the three cities in the study. Thus, Belarusian was dominant in the city of Grodno, Russian was dominant in Vitebsk, and in Minsk, the capital, bilingual signage was most prominent. On most bilingual signs, Belarusian appeared on top, but on some newer signs it was Russian. Brown (2007: 297) concluded that 'Belarusian in public spaces certainly projects an image of national solidarity and reinforces status planning efforts aimed at buttressing Belarusian as a co-official language'.

In recent years, several linguistic landscape studies have appeared about post-Soviet countries and, among others, the three Baltic States have been documented extensively. Among others, studies appeared on Estonia (Brown, 2012, 2018; Zabrodskaja, 2014), Latvia (Marten, 2010, 2012; Pošeiko, 2015) and Lithuania (Kudžmaitė & Juffermans, 2020; Moore, 2019a, 2019b; Muth, 2008, 2012). In their general introduction on the Baltic States, Lazdina and Marten (2019) included developments on linguistic landscapes next to multilingualism, language contact and majority–minority relations. Pošeiko (2019: 372) summarized linguistic landscape studies in the Baltic States and she indicated that those studies 'have included capital and regional cities focusing on minority and regional languages (mostly Russian and Latgalian) and language policy'.

Marten *et al.* (2012b) carried out a systematic comparison of the linguistic landscapes in the three Baltic States. They investigated six towns: Narva and Pärnu in Estonia, Rēzekne and Ventspils in Latvia and Druskininkai and Alytus in Lithuania. The authors explored the changing roles of English and Russian as a lingua franca and the languages of tourism based on a large sample of signs (n = 4,833) and 30 interviews with locals. Overall, they found that the state languages Estonian, Latvian and Lithuanian dominated the linguistic landscape.

For Latvia, Pošeiko (2015) supplied a detailed diachronic description of the linguistic landscape of the city of Daugavpils. She follows the example of the historical approach applied by Pavlenko (2010) and

Pavlenko and Mullen (2015) to the case of Kyiv in Ukraine (see a summary in Chapter 3). Pošeiko starts from the middle of the 19th century, when during the Russian Empire, Russian was the only language in public texts. During World War I, German announcements existed next to monolingual Russian signs. Latvia became independent in 1920 and this led to important changes in the linguistic landscape, especially after the language law of 1935 that prescribed the use of Latvian on all public signage. World War II devastated the city and afterwards Latvia became incorporated as a republic in the Soviet Union. As a consequence of this change, more Russian started to appear, also in monolingual signs. Only just before regaining independence in 1991 did a new language law lead to the placement of bilingual and monolingual signs in Latvian. An updated version of the law in 1992 decreased the role of Russian and made Latvian the default language for public display. The historical account of this town in Latvia bears a resemblance to developments in the other Baltic States of Estonia and Lithuania. Pošeiko (2015) further presented the results of an investigation carried out in 2013 showing that 86% of signs in the same town were in Latvian (n = 1,514). Twelve other languages were found in the sample, most frequently English, followed by Russian and Italian and occasionally other languages. The results are similar to those of Marten *et al.* (2012b) for the six towns in the three Baltic States, which we mentioned before. The details reported by Marten (2012) for the town of Rēzekne in Latvia were also very similar. In this town, the state language Latvian dominated the linguistic landscape as it appeared on 86.4% of signs, English came second (28.9%) and Russian had a low frequency of 8%, alongside a few signs in 14 other languages (n = 830).

In Tallinn, the capital of Estonia, Zabrodskaja (2014) observed that the language policy required Estonian as the official language to have a presence in all signage. However, she noted that there was widespread multilingualism and she characterized the linguistic landscape as heterogeneous because English, Finnish, Russian and German also had a presence alongside Estonian. Similar to other places, there was a shift from Russian to English as the lingua franca, but there were cultural spaces where Russian was dominant.

In Lithuania, Moore (2019a) observed that language erasure and language downgrading were the most prominent among the five processes highlighted by Pavlenko (2009). In another publication, Moore (2019b) mentioned the example of individuals who carried out spontaneous bottom-up erasure by scraping Russian in Cyrillic script from bilingual Lithuanian–Russian street signs. Apparently, they did not want to wait for the official language policy of the government that would replace the signs with monolingual signs in Lithuanian. Muth (2008, 2012) studied the city of Vilnius, the capital of Lithuania. According to his observations, ‘the linguistic landscapes of Vilnius show remarkable diversity’

(Muth, 2008: 131). Less than 1% of signs contained Russian, which implies that within 20 years Russian had almost ceased to exist in public spaces, even though Vilnius had a substantial Russian-speaking minority. Muth (2012) compared the results of Vilnius to Chişinău, the capital of Moldova, another former Soviet republic. In Chişinău, the linguistic landscape was dominated by Romanian, Russian and English. In a sample of 1,309 signs, the state language Romanian (Moldovan) appeared on 68% of signs (of which 24% on its own), but Russian had a presence of 49% (18% Russian only) and English could be seen in total on 30% of signs (English-only 5%). Muth (2014) focused on an additional analysis on private or informal signs where the presence of Russian at the time was much larger, reaching over 50% in one street of all informal signs, including bilingual signs. Muth (2012) points to political, economic and cultural differences between Vilnius and Chişinău to explain the different patterns of languages displayed on signs.

Other post-Soviet countries have undergone similar language policy processes of derussification. We give examples of studies in the cities of some of those countries.

In Baku, the capital of Azerbaijan, Sadikhova and Abadi (2000) gave an impression of the important changes after independence. Status planning was an important issue and in the new constitution Azeri (also called Azerbaijani) was declared the only official state language. The law prescribed that the language had to be written in Latin script instead of Cyrillic. However, the authors concluded that provisions of the language laws were ignored, both in official top-down signs and private bottom-up signs. In public, Azeri could be seen next to English and various other languages such as Turkish, Russian, Italian and French, especially in names of shops and other establishments. In a more recent study in Azerbaijan, Shibliyev (2014) found that Azeri (Azerbaijani) written in Latin script was most prominent because it was prescribed by law. The role of Russian as the second most frequently displayed language had been taken over by English. He found substantial differences between top-down and bottom-up signs.

In Astana, the capital of Kazakhstan, Moore (2014) investigated the languages on display and she also observed a substantial difference between the official language policy and actual practices. The constitution of 1993 names Kazakh as the only state language and Russian as the language for inter-ethnic communication. This was followed in 2007 by a new policy, called the Trinity of Languages, which encourages trilingualism in Kazakh, Russian and English. Based on a sample of signs (n = 440) in three districts of the capital city, she found that 51% was monolingual, 35% bilingual and 14% multilingual. Russian was visible on 86% of the signs, Kazakh could be seen on 55% and 15% had English. Other languages, such as Turkish, Arabic, French, Spanish and Italian, had a very limited presence. Most of the bilingual and multilingual signs (75%)

followed the order of the languages prescribed by law, as well as equal font sizes. In another study in Kazakhstan, Tussupbekova and Enders (2016) found an agreement with the state's language policy of the Trinity of Languages which is in contrast to the findings of Moore (2014). In Astana, the three languages Kazakh, Russian and English appeared with almost equal frequency in names in public. However, they focused only on those names and among a sample of 517 names they saw no significant difference between the frequency of Kazakh (35%), Russian (34%) and English (31%). However, they did observe a difference between the official support for Kazakh and the preference for English and Russian in the commercial and tourist sectors.

McDermott (2019) analyzed the linguistic landscape of Bishkek, the capital of Kyrgyzstan. Recent language laws declared the equality of Kyrgyz and Russian as official languages. Signs were randomly collected via Google Maps ($n = 104$) and the results showed an overall dominance of Russian in the linguistic landscape, even 25 years after independence. Interviews with young people confirmed the importance of Russian in society. Kyrgyz and English were seen almost equally often on signs, although Kyrgyz was visible mostly with Russian on bilingual signs, sometimes with English. English was used mainly for names of establishments and brands, where it had a growing presence. Another interesting result was that big commercial names formed only a very small part of all signs.

Uzbekistan is another former Soviet republic. Here, Uzbek became the only official language, although Russian continued as a lingua franca and English has spread rapidly in the last 30 years. Hasanova (2022) examined how during the Soviet regime (1924–1991) Russian was the main language of street signs and public announcements and the Latin alphabet was changed to Cyrillic. Several years after independence, the official language Uzbek is less prominent than either Russian or English (see Chapter 9 for some details).

The developments in the various post-Soviet countries demonstrate how political and social changes have an important effect on shaping language policies and those policies aim to make changes in the linguistic landscape. Specific language laws and policies have had a direct influence on the linguistic landscape, but there are also general forces such as globalization and language ideologies, beliefs and attitudes that can push in a different direction. In most cases, the growing presence of English is not the result of a specific language policy. After the collapse of the Soviet Union there was a strong reaction at first in favor of the national state languages, but over time the different countries did not follow the same course. As we have seen, different policy solutions have been implemented with different consequences for the visibility of languages in public spaces. The Baltic countries chose official monolingualism with one official state language and the policy hardly allowed for other

languages to have a presence. In contrast, the policy in Uzbekistan was also monolingual, but it seems that it had hardly any consequences for the display of Russian. In other states, a policy of official bilingualism was implemented, as in Kyrgyzstan, and official trilingualism is the policy in Kazakhstan.

8.6 Language Policies and Display Practices in Various Other Contexts

Several studies of linguistic landscapes in various other countries, regions and cities have taken language policy as their point of departure. In this section, we begin with studies that focus on the role of language ideologies, in some cases as part of an application of the three-part model of Spolsky. Thereafter, we discuss some studies that observe a discrepancy between the regulations of the language policy and the linguistic landscape practices encountered. This can lead to tensions and conflicts which for some researchers are the main focus of attention. Finally, some studies take a comparative approach to studying language policies in the linguistic landscape.

In Section 8.2, we briefly explained Spolsky's three-part framework of language policy, which includes language ideologies or beliefs, language practices and language management, i.e. the explicit efforts to modify ideologies or practices. The framework has inspired various studies of the linguistic landscape and language policy, in particular the component of language ideologies. For example, Yanguas (2009) applied the framework in his study of two Latino neighborhoods in Washington, DC. Interestingly, not just an English-only ideology was reflected in the signage, but also a bilingual ideology. Through a top-down language policy by the city authorities, they have managed to impose English-only signs, but the ideological convictions and the policy of local administrative authorities and businesses have translated into a practice of bilingual English–Spanish or Spanish-only signs.

In Section 8.2, we also mentioned the work of Blackwood and Tufi (2012) on language policy in France. This is part of their large study on the linguistic landscapes in Mediterranean cities in France and Italy. They started out from the three-part division of language policy from Spolsky's model in order to assess the extent to which policies and non-policies have an impact. In France, they found a language policy based on the belief of 'establishing and then maintaining France as a monolingual entity' (Blackwood & Tufi, 2012: 113). In practice, they encountered very few signs with regional languages, with the exception of Corsican. The French language fully dominated the linguistic landscape of the French cities investigated, which could be expected given the implications of the Toubon law (mentioned above). In Italy, a similar law does not exist, yet in Italian cities, Italian was dominant in a similar way. The reason seems

to be an ideology that only Italian should be used as the written language in public spaces. According to Blackwood and Tufi, the (non-)presence of regional languages on signage was not so much the effect of policies (or non-policies), but due to language ideologies and beliefs, as well as language practices that systematically delegitimize minority languages as anti-modern. In China, the state has a similar centralized language policy and ideology to that of France. Shang (2020) looked into how the language ideology of the central government mandates the use of Pinyin (Romanized Chinese) for street names. This language policy is challenged by the actual practice of English by local governments in various cities. He applies Spolsky's tripartite framework to include actual practices of English and Pinyin, the beliefs and attitudes of experts and the language management of the central government through laws and regulations (for use of names see Chapter 11). His conclusion is that the strict centralized language policy cannot be implemented via the usual political authority and the dominant state ideology. In another study in China, Han and Wu (2020) connected language policy and linguistic landscapes by asking to what extent the language policy reflects the residents' perception of the linguistic landscape. In the city of Guangzhou, they found various disagreements in the linguistic landscape shown by an obvious 'conflict between "monoglot linguistic regime" from the top and the need for multicultural/multilingual society from the bottom' (Han & Wu, 2020: 20). This outcome is similar to the study of Shang (2020) on street names in China.

Another example of the importance of state ideology comes from Sloboda (2009). He pointed to the relationship between linguistic landscape and language ideology in his analysis of the three countries of Belarus, the Czech Republic and Slovakia. He investigated the ways in which the state ideology influences linguistic landscapes and he was able to show how the state takes the role of mediator between the local and the global. An inward-looking state ideology in Belarus in contrast to an ideology of openness in the Czech Republic had important consequences for the linguistic landscape of each country. With reference to the methods of changing signage (Pavlenko, 2009), there was evident erasure of Russian and replacement with English in the Czech Republic, whereas in Belarus the bilingualism of Belorussian and Russian continued to exist. In Lanza and Woldemariam (2009), the relationship between language ideology and linguistic landscapes stood central in a comparable way. In the trilingual regional capital of Mekele in Ethiopia, Tigrinya, the official regional language, Amharic, the national working language, and English were competing in the public space. The researchers applied a lens of language ideology which made it possible to understand the interplay between language choices as the result of habitual world views and rational calculations. Displaying some languages and not others leaves an ideological message about the value, relevance and priority given to the languages.

In a different context, Shulist (2018) used a similar language ideology perspective. She studied the linguistic landscape of the city of São Gabriel in the state of Amazonas in Brazil to investigate ideologies related to the official policy for the revitalization of the indigenous languages Baniwa, Tukano and Nheengatu. She examined how actors responded to the top-down policy, which created only a limited visibility for indigenous languages. For this reason, the indigenous leaders considered the law unsuccessful. A telling example is how the multilingual text of the word 'Welcome' was written in six different languages. In English, Portuguese and Spanish the word was written in a large font, but in the three indigenous languages the word welcome had a label below with their names to make them recognizable. Shulist argues that this example shows the complexity, contradictions and contestations emerging from the official language policy.

Besides language ideologies, other studies emphasize the discrepancy between formal language policy and language practices. Those studies find that the legal arrangements (*de jure*) and what actually happens (*de facto*) is diverging. This discrepancy comes to the fore among others in the following studies.

In Section 8.2, we briefly mentioned Du Plessis (2011, 2012) who presented a clear example of this discrepancy by investigating language visibility regulations in South Africa. In the province of Free State, he identified a divergence between the *de jure* official language policies and the *de facto* policy of language visibility. The difference can be dated back to the pre-1994 situation of a policy of English–Afrikaans bilingualism. In the post-1994 era, as part of the new language policy, Afrikaans was removed, but in practice Bantu or other African languages were not introduced. The new policy created a monolingual English linguistic landscape, further reinforced by globalization. Du Plessis found no evidence of the intentional erasure of Afrikaans by various government agents, but rather it was an effect of the regulations and reinforced by globalization. Two other studies reported similar findings about the use of English (Dowling, 2012; Kotze & Du Plessis, 2010) (see Chapter 9 for these and other studies on South Africa). A comparable divergence between policy and practice was found by Anuarudin *et al.* (2013) in Malaysia. They studied the languages actually used on billboards in relation to the official language policy. Bahasa Malaysia (Malay), the national language, is prioritized, although the language policy allows for it to be combined with foreign languages (i.e. English). Still, their results show that language practices on billboards are not in agreement with official language policy (see Chapter 9 for other studies on English in Malaysia).

Likewise, the official language policy in Vietnam obliges the use of Vietnamese. Phan and Starks (2020) reported on a study on language policy in Hanoi. Vietnamese is required in advertisements, with some exceptions, e.g. trademarks and slogans, but when another language is added,

Figure 8.5 Shop front in Hanoi following the language policy

Vietnamese should be on top and larger. However, the results show that the reality is rather complex and Phan and Starks (2020) found substantial numbers of monolingual signs, both in Vietnamese and in English. The latter is in contradiction with the official language policy. However, the authors observe that using English on signs is in agreement with an education policy that supports English and with political discourses about the importance of English for internationalization (Figure 8.5).

More or less the same happened in Tunisia. The reality of the linguistic landscape again showed a different picture from the official policy as Ben Said (2021) documented in the linguistic landscape in Tunis, the capital, and in the suburb of La Marsa. The state policy aims at Arabization by making Modern Standard Arabic obligatory on all signs, although adding a foreign language is allowed. However, in contrast to the policy, today substantial numbers of monolingual signs are present in French, the former colonial language and in English, perceived as the global language. A similar gap between official policy and language practices was observed on Timor-Leste by Macalister (2012: 38) who concluded that 'language policy and planning appear to have been ineffectual in promoting Tetun as an official language'. In the same context, Taylor-Leech (2012) analyzed the presence of Tetun next to Portuguese, both official languages, in the linguistic landscape of the city of Dili. The language policy caused some changes and she found examples on official signs that upgraded the status of Tetun, even though the language was mainly used as an icon of national identity. Bilingual signs in most cases put Portuguese as the most prominent language using subtle ways, for example, through font and positioning. In non-official signs, English predominated and there Indonesian, the former colonial language, also had a substantial presence. Similarly, in Dubai, Karolak (2022) studied the Souk Naif, a neighborhood populated by various migrant groups. The official regulations prescribe Arabic for displays of private shops, to be placed on top and to the right and it should occupy at least 50% of

Figure 8.6 Bilingual sign in Dubai, with Arabic on top and high visibility of English

the signboard, while a translation for example in English is allowed. The outcomes showed that about 57% of signs follow the rules, but 43% of signs give priority to English. This was another case where the diversity of the population is not reflected in the linguistic landscape (Figure 8.6).

On the Marshall Islands, Buchstaller and Alvanides (2019) found something identical because the language policy states one thing, but the practice of the linguistic landscape is rather different and pays only lip service to a recently created policy. In Catalonia, a legal obligation dictates that the Catalan language has a presence on all public and private signs, similar to the regulations for French in Quebec. In a recent study of a neighborhood in Barcelona, Jódar-Sánchez (2021) observed a clear gap between this official policy and the daily language practices on signage.

One after another, these cases demonstrate that the linguistic landscape can reflect the far-reaching impact of language policy measures in the linguistic landscape. Language ideologies play an important part, and at the same time the discrepancy between *de jure* policies and *de facto* practices makes clear that there are serious limitations to what policy can achieve.

8.7 Concluding Remarks

In this chapter, we have seen the strong relationship between the fields of language policy research and linguistic landscape studies. Through various examples, we could demonstrate that it is useful and relevant to examine in detail the use of languages on the signage of a region, a city or a specific context, such as a tourist site, in order to uncover details of the implementation of explicit language policies, and also to find out more about covert language policies, ideologies and hierarchies that can be 'hidden in plain sight' (Amos, 2017: 94). Numerous studies have analyzed

explicit and implicit strategies to determine or to change the language of signs. According to Shohamy (2019), contestation in public spaces related to policy is one of the major themes of linguistic landscape research in a decade (2006–2016). It is a theme that leads to critical questions such as 'Who owns the public space?' and 'Who has the right to write in the public space?' (Shohamy, 2019: 31). Not only are signs important but also the people as actors, who produce, react to and interact with the linguistic landscapes they inhabit.

For researchers such as Spolsky and Shohamy, it is obvious that not only is language policy research relevant for linguistic landscape studies, but also the reverse, that the findings from linguistic landscape research can contribute to the field of language policy, and probably policy research in general. Shohamy (2015) explicitly argues that linguistic landscape research can contribute to the theory of language policy with new data and relevant findings. We agree and we can indeed observe that some publications focusing on language policy have paid attention to the issue of the display of language. For example, in their edited book, Abdelhay *et al.* (2020) considered semiotic spaces as a core issue and they included a chapter that discusses the linguistic landscapes of so-called tuck shops in South Africa as translingual spaces (Mokwena, 2020). Zhang's (2021) book on the language policy of the Olympic Games in Beijing also has a full chapter that analyzes the linguistic landscapes of the games. Examples of works that pay substantial attention to linguistic landscapes can be found in books on language policy in business (Barakos, 2020) and on policy in teaching English to speakers of other languages (TESOL) and multilingualism (Raza *et al.*, 2021). However, researchers of policy in general have thus far not given much consideration to language or to signage, let alone the combination of both. Thus, recent handbooks of general policy studies do not consider those dimensions at all (e.g. Colby, 2018; Howlett & Tosun, 2021). We agree with Shohamy (2006) and with Pavlenko (2009) that linguistic landscapes have to be considered as a significant mechanism of language policy and thus should be on the research agenda of the field of policy studies. Often, laws and regulations dictate the language on signage and thus give shape to the public space, as we have seen in many cases above. People interact with and do react to the 'words on the street', so indirectly they are also reacting to forms of legislation. Sometimes they do so by obeying, sometimes by protesting or other forms of behavior and those reactions in turn can influence policy formation processes. An important issue for studies is the tensions that are created between the formal policies and the actual practices on signs, as we mentioned above. According to Hult (2018: 347), linguistic landscape studies 'offer potentially useful insight into the central concern of LPP as a field of enquiry - the dynamic interplay between language policy and practice'. Hult (2018: 347) wants future studies to 'look behind the signs' and in that way find out more

about the lived experiences of people by means of ethnographic methods and by emphasizing the historical dimensions. He looks for answers to questions about how policies emerge, what the impact of policies is and how ideologies are transformed. We can conclude that the two fields of linguistic landscapes and language policy have developed in tandem and will continue to complement each other.

9 English Can Be Seen Everywhere

9.1 Introduction

English can most likely be found on display in any shopping street of any city around the globe. In all allegedly non-English-speaking countries, some form of the English language has obtained a larger or smaller presence in the visual scenery of the streets of urban centers, not only in the names of shops, brand names, advertising slogans and other commercial and private messages, but also in official information directed at tourists and visitors. Approximately 25 years ago, Crystal (1997) mentioned that one of the most noticeable global manifestations of the spread of English is its use on 'outdoor media'. Over the last few decades, the presence of English has also increased in cities and regions where the language was not traditionally used, although a few exceptional places seem to have no visible English, such as some German-speaking Alpine villages in South Tyrol in Italy (Dal Negro, 2009).

It comes as no surprise that several linguistic landscape researchers have focused their attention on the public display of English. It can be argued that, overall, English is the language that has attracted most attention in linguistic landscape studies.

Often, it is the principal language at the center of a study; many times, English is investigated as the language that competes with one or more other languages, and only a few researchers have ignored English altogether. Studies have demonstrated that the analysis of linguistic landscapes can provide relevant insights into the variation in the extent of the display of English and the several reasons for its use in different places or for various purposes.

In this chapter, English is our focal point and we examine how it plays a role in almost any study. In Section 9.2, we develop our approach to discussing the various studies on the presence of English in linguistic landscapes. In Section 9.3, we discuss outcomes about English from studies in inner circle countries. The position of English in selected outer circle countries in Asia and Africa is examined in Section 9.4. Thereafter, in Section 9.5, we discuss English in public spaces in expanding circle

countries, distinguishing between the second position in the language hierarchy (Section 9.5.1) and third, first or none (Section 9.5.2). Section 9.6 ends the chapter with some conclusions.

9.2 Our Lens on English and Linguistic Landscape Studies

Nowadays, the pull of English is strong and English has become the most important language of wider communication. English is without a doubt the global language of our times and, as said, it has left its traces in public spaces and can really be seen everywhere.

In an earlier publication, we noted that 'the omnipresence of English in linguistic landscapes is one of the most obvious markers of the process of globalization' (Cenoz & Gorter, 2009: 57). The process of globalization can be seen as one of the major factors influencing how the English language is so widely dispersed. The effect of globalization reaches all corners of the world and influences the daily lives of people in the products they buy, the way they dress, the food they eat, the culture they take in, the news they watch and also the words they use and the languages they want to speak and read. The development of globalization has been explained in various ways. Even if its origins go way back in history, processes of globalization are usually located in the 20th century and described in economic terms of markets, production, consumption and advertising. Specific factors mentioned are, for example, the effects of free trade, standardized transportation containers, computer chips and the internet, and factors such as the movement of people through migration and mass travel. Those factors are not only economic, but also technological, political and demographic. The proliferation of English itself is a factor that is not only caused by, but also helps to strengthen globalization; among other reasons, because it has become the sole language of global air traffic control and it is the major language for international trade, diplomacy, academic publishing, press agencies, sports and tourism. Cultural and linguistic aspects can also be taken into consideration. In cultural terms, English dominates the industries of movies, music, games and bestsellers. Of particular importance for the linguistic landscape is the role of English in advertising campaigns, brand names and commercial communications. In linguistic terms, due to globalization, people continuously learn new names of places, persons, products and ideas, mainly through the mass media and the internet. Many new words are coined in English, which implies a shared vocabulary among people from around the world. With good reason, Blommaert (2009: 244) has called English 'the language that defines globalization'.

Globalization has a dual nature because it contrasts with local concerns, which has been captured in the concept of 'glocalization' (Robertson, 1995). At its core, this concept refers to relationships between global orientations and the preservation of local values. People may fear a loss

of their identity because of globalization, or may feel that there is no space for their language and culture. As an alternative vision, Bello (2020) proposed ‘deglobalization’ as a concept that aims for an improved global society. Deglobalization gives priority to values above interests, cooperation above competition, and community above efficiency. It is said that the global COVID-19 pandemic will lead to a future with a different or a ‘new normal’. In a recent blog post, Bello (2020) concluded, ‘the pandemic gives us an opportunity to rethink our global economic system in favor of “deglobalization”’.

Numerous studies on the English language have been published which refer to its use as a global language or to the many varieties of English around the world. Those studies have developed into overlapping specializations as reflected in the titles of handbooks such as *World Englishes* (Kirkpatrick, 2020), *International English: A Guide to Varieties of English Around the World* (Trudgill & Hannah, 2017) and *English as a Lingua Franca* (Jenkins *et al.*, 2018). What these publications share is a focus on the English language in all its manifestations. Thus, researchers examine what English represents as a phenomenon and as a linguistic object, including contact varieties of English. Each of the handbooks mentioned may refer to linguistic landscape studies in passing, but so far, none of them has devoted a separate chapter to this topic.

Worldwide, English is today by far the language most learned as an additional language by speakers of other languages. People assume that English is the most valuable language in the labor market and educational systems prioritize the language in their programs. This has led to the blossoming of various specialized areas focusing on the teaching of English, which come with a variety of acronyms: EAL, EAP, EFL, ELT, ENL, ESL, ESP, ESOL, TEFL and TESOL (where E stands for English, L is for language and the other letters can be additional, academic, foreign, native, other, purposes, second, special, teaching and testing). Perhaps we should add the abbreviation ELL for English in the linguistic landscape, but it has not been used as far as we know. In turn, some of these specializations have contributed to a booming and profitable multimillion industry of courses, materials, testing and certificates. In these specialized subfields of language teaching and learning, the area of linguistic landscapes has thus far not garnered much attention, with some exceptions such as Solmaz and Przymus (2021) (see Chapter 10).

There are numerous publications on the historical, colonial, political and economic dimensions of English and on the importance of English in educational systems, in business, in popular culture and in the media. Studies of English have developed into their own specialized fields, and also occupy an important place in general linguistics, applied linguistics, sociolinguistics, psycholinguistics and other academic fields. Critical approaches have focused on language practices in relation to the power

and prestige of English and the advantages some people obtain, while others are excluded.

Probably the best-known model of the worldwide diffusion of English is Kachru's (1992) model of three concentric circles of countries: the inner, outer and expanding circles. The inner circle represents the historical bases of English, that is, the countries where English is the dominant language and the first language of most people (e.g. the United Kingdom and the United States). The outer circle of English came about through the colonial expansion of the British Empire, mainly in Africa and Asia, where English often serves as an official (or co-official) language of a multilingual country and as a means of wider communication between different groups (e.g. India). The expanding circle covers all other countries where English historically played no role and is not official, but where it is more or less widely taught and spoken. The three circles model is attractive because of its simplicity and assertiveness.

However, the model has some limitations and it has been criticized as an oversimplification based mainly on an idea of homogeneous nation-states as a whole. Further, the model supposedly considers Standard English but takes its varieties, also in the inner circle countries, too little into account and it disregards the proficiency levels of speakers while it prioritizes native speakers who are not necessarily experts on their first language. The model may also give more value to inner over outer varieties in suggesting the speakers use more authentic English. Finally, it is not always clear to which circle a country belongs. For example, Bruthiaux (2003) argues that the fuzziness and complexities of each sociolinguistic situation have to be considered. Pennycook (2007) criticizes the model because it is inadequate to understand how complex and diverse English is in today's world. In contrast, Pakir (2019) argues that there is, thus far, no better paradigm for the analysis of World Englishes, since it is globally relevant and is rooted in local multilingual contexts. Aware of these criticisms, but following Pakir, we apply the model in the next sections. The basic idea of three circles, even if overlapping, can be useful to structure the discussion of how linguistic landscape studies have improved our understanding of the visibility of English and its hierarchical relations with other languages.

Phillipson (1992, 2009) introduced the construct of *linguistic imperialism* to account for the hierarchies among different languages and how English has become the dominant language, supported by political and economic structures and ideologies. He argues against neutral conceptions of English because English has been imposed as an instrument of the foreign policies of Anglophone countries at the cost of displacing other languages and threatening linguistic diversity. He argues how knowledge and use of English contribute to unequal access to power and how this legitimizes linguistic hierarchies. His critique has had an influence on

academic debate by raising awareness of English as the international language.

In his proposal for one global language system, De Swaan (2001) called English the hypercentral language. He conceives of the system as a language hierarchy of four levels. English has a special role and sits on top of the hierarchy. Specific hierarchical relations contribute to inequality among languages. On the level immediately below English are the supercentral languages: 13 widely spoken languages, such as Arabic, Chinese, French and Spanish. Then follow the central languages, which are official or national languages; there are about 100 such languages, spoken by some 95% of the world's population. On the lowest level are the peripheral or minority languages, which constitute 98% of all languages, but are spoken by less than 10% of the world's population. De Swaan relates the origins of the current hierarchy, for the most part, to military conquests of the past, thus colonialism, and, at the same time, he argues that the world system allows for further expansion of the stronger languages due to economic, political and power factors.

The ideas of Phillipson on linguistic imperialism and De Swaan on language hierarchy will be incorporated into our discussion of the manifold investigations of the public display of English. We structure our presentation of studies according to the Kachru model of the three circles because it is still somewhat widely accepted and used. We already saw in Chapter 2 on the development of the field how English played a role in the earliest studies as well as in all four classic studies. The role of English has continued to be of significance in a great number of linguistic landscape studies and English is the focus of attention in the following sections.

9.3 English in Traditional Inner Circle Countries

The dominant role of English in society, including on public displays, is largely taken for granted in the countries belonging to the inner circle, that is, the United Kingdom, the United States and Australia. Other countries often considered belonging to the inner circle are Canada, Ireland and New Zealand, although those countries are officially bilingual or multilingual. Obviously, none of these countries is linguistically homogeneous, as can be demonstrated by census figures and by intense social debates about the role of English and other languages, notably in the United States through the English-Only movement and in Australia on the role of languages other than English (LOTEs) in education.

Historically, parts of the United Kingdom have their own languages, such as Wales with Welsh, and Scotland with Scottish Gaelic and Scots. Language diversity in the United Kingdom was well demonstrated in a survey when over 300 home languages were found among school children in London (Baker & Eversley, 2000). In the United States, English

is obviously the dominant language in society, even though hundreds of other languages are spoken by millions of its inhabitants, either as indigenous or as heritage languages. Spanish is by far the most spoken among those languages; according to US census data from 2021 an estimated 13% of the population speaks Spanish at home.

Similar to the United Kingdom and the United States, Australia has no official language, but it has a declining number of Aboriginal languages and various immigrant languages are spoken by substantial groups of people. Canada has two official federal languages, English and French, and provides some support for over 70 indigenous languages. Ireland recognizes Irish as its national and first official language, and New Zealand is officially a trilingual state where besides English, both Māori and New Zealand Sign Language are officially recognized. As we will demonstrate, numerous linguistic landscape studies in all of these alleged 'English-speaking' countries have contributed to our knowledge about English and other languages in public spaces.

9.3.1 United Kingdom and United States

The base of English that traditionally provides norms for standardized versions of the language is formed by the United Kingdom and the United States. British English and American English are the two dominant but competing standard varieties. The historical core of the inner circle is England, where the English language started its gradual spread from the Middle Ages onwards.

To characterize the position of English in the linguistic landscape, it may be best to start in its heartland: in a fairly ordinary English street in the inner city of Newcastle upon Tyne in the northeast of England. It is here that Cook (2013, 2015) made an elaborate inventory of the characteristics of the linguistic landscape. Cook categorizes all the signs he finds, which include house names and numbers, and typical British features like brass plates for business names. He also explains the difference between the element 'street' and 'road' in names and he considers the quality of the material of the signs and whether they are permanent or temporary. He ponders on the use of letters with capitals or lowercase, punctuation, serif and sans serif letters and fonts. For Cook, the written language in signage is a distinctive genre in grammar. The features he discusses are elements of importance in the display of language in public spaces, but not commonly included in linguistic landscape studies. Interestingly, sign regulations in England do not mention language because it is taken for granted or, as Cook (2013: 51) wittily observes, this is 'presumably because legislators do not dream that any language other than English would be used on street signs'. Yet, in this typical English street, Cook also finds languages other than English. The function of those signs was to locate, attract and inform potential customers, and people were

Figure 9.1 'Typical' English street (York)

not expected to understand the language. He calls this use *atmospheric multilingualism* as a contrasting concept to *community multilingualism*. The latter refers to the use of Chinese on signs for practical purposes in a second street he examined (see Cook [2022] for a book-length treatment) (Figure 9.1).

Cook focuses on the specific features of signs in a predominantly English environment which is different from the Multilingual Manchester project. In this project, data on multilingualism were collected through the LinguaSnapp smartphone application (see Chapter 4) which excludes monolingual English signs. The results have been published in several articles (Gaiser & Matras, 2020; Matras *et al.*, 2018). Similarly, the investigations of Chinatown in Liverpool (Amos, 2016) or Banglatown in London (Rasinger, 2018) focus on multilingualism and pay relatively little attention to the dominance of English signage.

In the United States, it seems unavoidable that the dominating position of English is taken into account in studies that investigate the presence of Spanish, Chinese or other languages. Here, we discuss some studies on Spanish in relation to English; other studies on Chinese have been discussed in Chapter 7.

Perhaps it is telling that Troyer *et al.* (2015) refer to Spanish as an 'unseen language' in the linguistic landscape. Various studies in different places in the United States have either confirmed or contradicted such a marginal position of Spanish in public spaces, while at the same time all studies seem to confirm the dominance of English. Troyer *et al.*

(2015) reported on a study in a rural town in Oregon where 35% of the residents were Spanish speaking. In the linguistic landscape, they counted that 98% of all signs included English, 2% were in Spanish only and 9% were bilingual signs that included Spanish. Moreover, the use of Spanish on signs was limited to two small geographic areas and, in economic terms, to convenience stores and Mexican restaurants and businesses. The authors conclude that Spanish is not completely invisible, but it is largely ignored. They cite as reasons the socioeconomic inequality between Anglo-American and Hispanic population groups, as well as the presence of linguistic and cultural intolerance for the public display of Spanish by some Anglo-Americans. These outcomes seem to be in agreement with the findings of Mitchell (2010) in Pittsburg, who found 96.5% monolingual English signs (see Chapter 4). In another study, this time in San Antonio, Texas, Hult (2014) was able to confirm the dominance of English. He found that 92.8% of signs along the main highways were monolingual English, with only a small number of signs showing a limited presence of Spanish. Obviously, the linguistic landscape does not represent the linguistic composition of the city population which, according to census data, is 53% English speaking, 44% Spanish speaking and has a total of 28 different home languages. Hult explains how the ideological dominance of English that began in the 19th century and gradually became stronger in the 20th century, is reinforced by the current visual dominance of English. Hassa and Krajcik (2016) obtained similar results in Washington Heights in New York, a neighborhood with a high percentage of inhabitants of Dominican origin. They conclude that English was the dominant language after counting all the words on signs (73.9%), followed by Spanish (24.9%) and a few words in other languages (1.2%). The authors argue that the superior status of English reveals inequalities in the linguistic hierarchy. English is perceived as the language of prestige and socioeconomic success with which Spanish cannot compete. It seems that the Dominicans in this neighborhood have internalized English as the norm and simultaneously contest and reproduce an ideology of English monolingualism.

It is less clear what the relative positions of English and Spanish are in the linguistic landscape in other contexts. Franco Rodriguez (2009) collected a substantial corpus of mainly commercial signs displaying nonstandard forms of Spanish in Los Angeles and Miami-Dade counties, but he was only interested in the linguistic aspects of deviations of Standard Spanish, mainly at the lexical level. He acknowledges the strong influence of the contact with English, but his study does not provide information on the prominence of English (or Spanish) in the linguistic landscapes (Figure 9.2). Yanguas (2009) investigated two neighborhoods in Washington, which he referred to as Hispanic. The relative prominence of English and Spanish in this study remains unclear, even though he presents several examples of English only, Spanish only and bilingual signs.

Figure 9.2 English–Spanish sign (with error) in New York

He refers to the supremacy of English through a *de facto* language policy related to English-only movements, but at the same time he claims that the signs in Spanish provide evidence for the importance of that language. A recent study by Pastor (2021) in a densely populated Spanish-speaking area of Dallas only included bilingual English–Spanish and Spanish monolingual signs, but excluded all monolingual English signs, so he concluded that further studies are needed to know the proportion of English versus Spanish.

Along the same lines, Lyons and Rodriguez-Ordóñez (2017) carried out a careful quantification of the presence of English and Spanish in a predominantly Hispanic neighborhood of Chicago undergoing a process of gentrification. Overall, they found that around 40% of signs were in English, 30% in Spanish and 30% bilingual signs, with some variation over the different tracts of the neighborhood. Those percentages are similar, but substantially lower for English and higher for Spanish than what we saw in the other contexts. The authors argue that a key insight into the gentrification process is not only the distribution of the languages, but rather how the presence of Spanish is framed, among other things as

heritage and collective memory. In a similar quantitative case study on four streets in the Mission district of San Francisco, Lyons (2020) again found substantial differences in the percentages of the use of English and Spanish on signs. She was able to statistically infer the differences between the streets in terms of the likelihood of finding English or Spanish through the application of an inferential model (see Chapter 4 on her statistical approach).

Carr (2021) wanted to take this one step further and demonstrate that linguistic landscapes do reflect the language of the inhabitants of a neighborhood or a city. She studied three cities in the county of Los Angeles which had different proportions of Spanish speakers, ranging from 93.6% to 73.4%. In an elaborate quantitative analysis, she found 80.9% monolingual signs, of which 71.5% were in English, 28.2% in Spanish and just 11 signs (0.3%) in other languages. These percentages are similar to those of Hassa and Krajcik (2016) in the Dominican neighborhood in New York. Carr found substantial variation between the three cities: from 42.9% signs in Spanish, to 32.5% to 12.1%. Her further analysis of the dominant language in the main and informative parts of multilingual signs confirmed the overall pattern. In each city, she found a strong correlation between the languages on the signage and the percentage of Spanish speakers, which she sees as substantiating her claim that the linguistic landscape does indeed reflect the composition of the population, at least to some extent. Her study shows that although English is clearly the most prominent language, Spanish has a more than marginal position and can certainly not be characterized as 'unseen' in these urban areas in Los Angeles.

Yochim (2020) investigated what is referred to as the 'refugeescape' of Erie, Pennsylvania. Refugees from Asia, Africa, Eastern Europe and the Middle East were relocated to this small city. At the time of the study, 11.7% of the population spoke a language other than English, most frequently Nepali and Spanish. The study confirmed that English was pervasive in the linguistic landscape because all official signs were in English only. Just a few private signs were written in other languages and less than half of those signs were bilingual, mostly English with Spanish or Arabic. 'Cultural heritage signs', which refer to past immigrant groups such as Italians and Poles, were mainly written in English and this demonstrates their linguistic assimilation. The author concludes that the linguistic landscape reflects an ideology that gives the highest status in the language hierarchy to English and weakens the ethnolinguistic vitality of refugees.

In some specific neighborhoods, the dominance of English is challenged by Spanish because of the high proportion of Spanish speakers. Perhaps the study of the Escondido World Market in San Diego by Ramos Pellicia (2021) illustrates some of the underlying processes. Inside this market, Spanish is the dominant language in the linguistic landscape

because the market is perceived as a safe space where Spanish is accepted and expected, whereas the outside world is often hostile toward the language. One could say that the market has become a small Spanish island in an English ocean.

From the studies in the United States it has become clear that English is without doubt the dominant language in public spaces. This can, in part, be explained by the pervasive language ideology that gives most social prestige to English.

9.3.2 Canada, Ireland and New Zealand

Canada has been considered the cradle of linguistic landscapes studies, not least because of the reflections by Landry and Bourhis (1997) (see Chapter 2). English is the dominant language in Canada, with the exception of the province of Quebec, where French has an important role in society. Across Canada live several dozen First Nations peoples, who speak over 70 languages, of which only Cree, Ojibwe and Inuktitut are deemed strong enough to be able to survive, while almost all the others are considered severely endangered (Sarkar & Lavoie, 2014). In some of those communities, one can encounter signs in the local language (see Figure 9.3).

In Chapter 7, we briefly discuss a study on Inuit languages in the north of Canada as a minority language and we present the example of a study in the Chinatown of Vancouver. The linguistic landscape in Canada is again to the fore as an interesting case of language policy in Chapter 8.

Studies in Ireland usually focus on the position and public use of Irish (Kallen, 2009, 2010; Moriarty, 2012); however, despite Irish being widely visible on official bilingual signage promoted by the government

Figure 9.3 Sign with word in Halkomelem, a First Nation language (Vancouver Island)

as the first national language, there is a process of passive exclusion of Irish on private and commercial signage (Thistlethwaite & Sebba, 2015). In Chapter 7, we discuss how Irish functions in daily life in a similar way to many other minority languages, and we categorize Irish as having a medium presence.

New Zealand is another country usually situated in the inner circle, although it has three official languages. Next to English, Te reo Māori has been official since 1987, a legal position it has shared since 2006 with New Zealand Sign Language. However, walking the streets of, for example, Auckland, one of the major cities, it is hard to find any other language than English, except in some French or Italian names of businesses, or a few words in Māori at the fan shop of the national rugby team or local government (Figure 9.4).

The studies we discuss in Chapter 7 show that, in practice, Māori as a minority language is almost invisible in public spaces and English monolingualism is the norm for linguistic landscapes (Macalister, 2010). Bilingual signs are hard to find (Johnson, 2017) and at the airport Māori is only used for touristic purposes which does not reflect the sociolinguistic reality (Cunningham & King, 2021). We rated the visibility of Māori in the category of minority languages that are minimally displayed (see Chapter 7).

These three countries belong originally to the inner circle of English, but as we remarked before, all three are officially bilingual or multilingual. All three also harbor minority languages and nowadays language diversity is a characteristic of their societies, as elsewhere.

In most contexts, including public spaces, the use of only English is by and large taken for granted. Even if there is a second or third official language, that designation is more symbolic than real and has few consequences for display in public spaces, as we saw not only in New Zealand,

Figure 9.4 Sign with Māori in small font below (Auckland)

but also in Ireland and in Canada outside the provinces of Quebec and New Brunswick. In these countries, English is not used for prestige reasons, but other languages, such as French and Italian, are prestigious and are used in brand names, shop names and slogans (Bagna & Machetti, 2012; Ben-Rafael & Ben-Rafael, 2019; see Chapter 11). Only in specific communities and locations might other languages such as Spanish or Chinese compete with English to some extent and contest its supremacy.

9.4 English and Other Languages in Outer Circle Countries in Asia and Africa

All countries in the outer circle of English are multilingual, and in most of those countries English was imposed during colonial times, whereas today English is a co-official state language. We first consider a number of countries in Asia, beginning with India, then Malaysia, Brunei and Singapore and then we compare the cities of Hong Kong and Macao. Second, we examine some studies in Africa, in comparing the cases of Botswana, The Gambia, Uganda and Zambia, and finally the cases of South Africa and Tanzania to see what happens to English. We also include Rwanda and Ethiopia, two countries where English is widely used even though they were not former British colonies.

9.4.1 India

The federal union of India demonstrates a unique constellation of linguistic, ethnic and religious diversity and it is one of the most important multilingual states in the world. As a former British colony, English continues to play an important role in society, next to Hindi in the Devanagari script, which is India's official language. There are 22 scheduled languages in 13 different scripts, which are official in 1 or more of the 28 states and 8 union territories of the federal union.

Given its multitude of languages and scripts, Indian scholars are obviously interested in the study of linguistic landscapes. Time and again, various studies have confirmed the overall dominance of English in the linguistic landscape, although Hindi also has a significant place. Three chapters in the collection by Itagi and Singh (2002) are of special relevance to linguistic landscape studies in the sense used here. In his chapter, Naik (2002) documented English as the dominant language in the public sphere in the industrial city of Rourkela in the state of Orissa, where government signs were bilingual in English and Oriya (the official language of the state). Dhongde (2002) analyzed roadside advertisements (hoardings) from four different cities (Aligarh, Banaras, Kolhapur and Pune). Languages were presented in different ways on those signs, with English used for international and national products, Hindi for local products in two towns and Marathi in two other towns. Ramamoorthy (2002) examined the exceptional case of the city of Pondicherry, a French stronghold in

colonial times. He still found many reminiscences of French, for example, in street names, although English also had an important general presence on signage, next to Tamil, the official state language.

Agnihotri and McCormick (2010) discussed the relation between English and Hindi in New Delhi, the capital. They compared in some detail, but also in a somewhat impressionistic way, the signage in four districts of New Delhi. In a prestigious shopping area, they found a strong dominance of English and, exceptionally, a few signs that also included Hindi because those signs were placed by the government or by banks. In the other three areas, English and Hindi were the two dominant languages, although in one area there were also various signs in foreign languages. Punjabi had some presence in the area of the old city and there was a mixture of English, Hindi and Urdu and their scripts in a predominantly Muslim area. The authors also analyzed a series of billboards with descriptions in English and Hindi, but all in Roman script. On other roadside hoardings, English and Hindi were mixed and so were the scripts. Overall, an important observation of their study was that linguistic boundaries between English and Hindi were permeable and fluid. This conclusion coincides with the remarks in an earlier publication by McCormick and Agnihotri (2009) in which they provided examples comparing the use of English on bilingual and multilingual signage in New Delhi and Cape Town, South Africa. They found that the 'boundaries between languages and scripts are porous' (McCormick & Agnihotri 2009: 15) based on the alternation of languages and the loanwords aimed at bilingual readers as well as positive associations with Englishness. In another study in New Delhi, Meganathan (2017) analyzed the frequencies of English used, alone or in combination with other languages. He shows that English was by far the most frequent language (used on 93% of all signs), followed by Hindi (47%). Only a few of the over 100 languages spoken in the city appeared on signs, among those Urdu and Punjabi, the two 'second official languages' in the state of Delhi. The four official languages co-occurred in four scripts on a few street signs, with Hindi on top, followed by English and then Urdu and Punjabi. Kathpalia and Wee Ong (2015) analyzed English-Hindi code-mixing or *Hinglish*, in one popular advertising campaign for Amul butter on billboards across India. They distinguish different strategies such as puns, allusions (e.g. to Bollywood movies or Hindi TV shows), contradictory associations through irony, paradox, metaphor or word creation. The authors see this as a 'happy coexistence of Hindi and English' (Kathpalia & Wee Ong, 2015: 574) that fulfills creative needs and is part of everyday sociolinguistic reality.

Rubdy (2015b) analyzed over 100 graffiti commemorating the Mumbai attacks in 2008. A large proportion of those signs were in English only and English also turned out to be the preferred code through placement. She argues that English is used for more than symbolic or emblematic

reasons because its use is related to the role English plays in the wider social context of Mumbai, where Marathi is the official state language. Many texts also contained Marathi or Hindi but the content was complementary rather than duplicating, suggesting that the targeted readers were English literate bilinguals. The linguistic landscape of South Mumbai was studied by Shukla and Singh (2018). In a quantitative inventory, they found that English dominated the linguistic landscape, followed by Hindi and about half of all government signs were trilingual with English, Hindi and Marathi.

In two small studies, Begum and Sinha (2018, 2021) examined signs in the city of Patna and the town of Bihta, both in the state of Bihar. In a main shopping street in Patna, they found that English was the most frequently visible language on 40% English-only and 29% bilingual English–Hindi signs (n = 70). There was less Hindi-only signage (27%) and very few were found in Urdu. In the study in Bihta, they found one-quarter of signs in English only, 20% bilingual Hindi–English and almost half in Hindi only. So, in this smaller town, English also had a strong presence, but was less dominant. Other languages spoken by the population, such as Angika, Bajjika, Magahi, Maithili and Bhojpuri, were almost invisible (the second case is discussed in Chapter 7 on minority languages). The trend for less English in smaller places was confirmed in another study in Bihar by Singh (2018) who compared the remote rural village of Malisandh to the more developed village of Shat in the state of Himachal Pradesh. The results showed that English had a presence in both villages, but to different degrees. In Malisandh, 5% of the signs (n = 45) had English only and 25% were bilingual English–Hindi, mostly in the school context; so a relatively limited presence. In contrast, in the second village, the position of English was stronger due to tourism and commercial reasons: 29% of the signs (n = 58) used English and 36% were mixed English–Hindi. Even though a majority of the population did not understand the language, the author concludes that English had penetrated strongly and was used to increase the prestige of goods and services. Singh (2018: 34) perceived ‘a direct correlation between growth and English’. The presence of English in all the villages studied was comparable.

Various studies were carried out in Northeast India confirming the dominance of English in public spaces. Bharadwaj and Shukla (2018) studied the market areas of Tezpur, a town in Assam where Assamese is the official language and the lingua franca of the various language communities. They found that bilingual signs in Assamese and English were the most common (61%), followed by 21% in English only and 14% in Assamese only (n = 208). English dominated commercial signs, whereas government signs were mostly trilingual, adding Hindi to the trilingual formula. Monolingual Assamese signs were mostly put up by cultural and historical institutes, reflecting a sense of identity. Dkhar and Singh

(2018) compared the linguistic landscapes of three districts in the state of Meghalaya, where Khasi and Garo have been recognized as associated official languages since 2005, alongside English as the official language and Hindi as the national language. In a quantitative study, they report the clear dominance of English-only signs (48%) or in combination with Hindi and to a lesser degree with Khasi and Garo (total 19%; $n = 300$). The authors concluded that the presence of English is an obstacle to the promotion of the regional languages. It takes away from the autonomy of those languages when they are mixed with English on signs. The results of three further studies on multilingual communities in Northeast India are summarized by Singh *et al.* (2018). The studies took place in the city of Aizawl in the state of Mizoram, six localities in the area of Shillong in the state of Meghalaya and the small village of Thahekhu in the state of Nagaland. The results show again that in all three cases English dominated official, commercial and other types of public signage. Unlike other studies, there seemed to be no difference in the frequency of English between the small village and the larger city. English overshadowed the national language Hindi and the regional languages Mizo, Khasi and Sumi, which are spoken by a majority of the population. The authors consider the dominance of English as a symbol of its status, prestige and power, ideas that are similar to those reported in many earlier studies (Figure 9.5).

Overall, the various studies in India confirm the predominance of English in the linguistic landscape. According to De Swaan (2001), English is the hypercentral language at the top of the hierarchy. Depending on the context, other official state languages, in particular Hindi as the

Figure 9.5 Billboard with 'English the power' (India)

national language, play a role, which is highly visible through the different scripts. However, the rich diversity of spoken languages in India is not at all reflected in the linguistic landscape. Still, a visitor to India would have no idea that they were visiting an inner circle country because the linguistic landscape is deeply multilingual.

9.4.2 Malaysia – Brunei – Singapore

Next, we discuss English in three countries also in Asia: Malaysia, the sultanate of Brunei and the city-state Singapore. These three independent states share a history of British colonialism and the imposition of English as the colonial language and, as such, are examples of the linguistic imperialism to which Phillipson (1992) refers. Today, English is an official language of Malaysia and Singapore, but not of Brunei, and English is widely used in business and higher education in the three countries. Standard Malay is an official language of all three, but it is only in Brunei that Jawi, the Arabic alphabet, is commonly used for writing in Malay. Additionally, Chinese and Tamil are official languages in Singapore.

9.4.2.1 Malaysia

Around 140 languages are spoken in multilingual Malaysia which has a population of approximately 32 million inhabitants. Besides the official languages English and Malay, other languages widely spoken are Chinese and Tamil. In Malaysia, a language policy is in place that prescribes the use of Malay in signage and advertisements. The law from 1972 stipulates that Malay has to appear prominently on all signage, and this was reaffirmed in 2007 (Coluzzi, 2020; David & Manan, 2015). This policy and its complex language situation make Malaysia an interesting place for linguistic landscape studies. We present the results of various studies to describe the position of English in public spaces in relation to Malay, and to Chinese, Tamil and other languages.

Overall, the most visible languages in the linguistic landscapes are English and Malay. As Coluzzi (2020) observed, a tourist visiting Malaysia would mainly see signs in English and Malay, and then perhaps some in Chinese and some in Tamil, especially in Little India. Similar to most urban landscapes around the world, traces of languages such as French and Italian can be discovered. Most of the studies were carried out in the capital, Kuala Lumpur. Manan *et al*. (2015) confirmed the prominent use of English in the linguistic landscape in four neighborhoods. In monolingual, bilingual and multilingual signs, English was most frequent and it also stood out in text size and the space it occupied on each sign. Manan *et al*. (2015: 44) concluded that ‘English is deeply woven into Kuala Lumpur’s cityscape’.

This study of the capital is supplemented by various studies of ethnic neighborhoods, religious places, the highway to the airport and

the airport itself. Wang and Xu (2018) found that English had a strong presence in Chinatown, although Chinese remained the most dominant language and Malay came third. In percentages, they found that English was present on 57% of signs, Chinese on 71% and Malay on 45%. In Little India there was more English (on 86% of all signs) and more Malay (55%), whereas Tamil appeared on 44% of signs. In both neighborhoods, there was a preference for bilingual or multilingual signs, but the difference was that Chinese in combination with English or Malay appeared more often than the combination of Tamil together with English or Malay. One of the explanations the authors give for these patterns is the economic value of multilingual signage for the business owners. Coluzzi and Kitade (2015) studied places of worship in Kuala Lumpur. They found that depending on the ethnic or religious group attending the place, the dominant language on display was the ethnic language plus English, while Malay was little used. Anuarudin *et al.* (2013) examined language use on billboards on a stretch of the highway between Kuala Lumpur and the airport. They calculated that 87% of those billboards had English and 74% had Malay, including frequent bilingual signs. There was only a minor presence of other languages, such as Chinese, French and Japanese. They not only noted the difference between the official language policy that prescribes Malay and actual language practices, but they also detected a seeming tolerance of this discrepancy by the authorities. At the international airport, Woo and Riget (2020) observed a hierarchy of languages on wayfinding signs. Those signs had three parts arranged vertically. Malay was consistently placed on top, English was in the middle in a slightly smaller font and in italics, and three languages were in the lower part next to each other: Arabic, Chinese and Japanese, in a smaller font and with different scripts. The authors conclude that this arrangement is in agreement with government language policy which gives preference to Malay and, at the same time, it is directed at the target groups that pass through the airport.

David and Manan (2015) examined the linguistic landscape of Petaling Jaya, a city which is part of the greater Kuala Lumpur area. After presenting details of the official language policy, they observed that government signs (n = 50) were monolingual in Malay, with the few exceptions of bilingual Malay–English signs. Private signs, in contrast, were almost all bilingual or multilingual (n = 350) and, by and large, shop owners complied with the policy of giving prominence to Malay (in font size and language positioning). However, what was, in fact, happening was a simultaneous accommodation and evasion of the rules by also giving prominence to English on commercial signs, for example, through English brand names. Moving away from Kuala Lumpur, but including the city as one of their four cases, Ariffin and Husin (2013) compared shop signs in Kuala Lumpur, the city Bandar Raya Melaka and the towns Cheng and Bandar Jengka. They found that English was more frequent in

the two large cities, while in contrast, Malay had a larger presence in the two smaller cities, followed by bilingual signs and a few signs that also included Chinese. More recently, Ariffin *et al.* (2019) studied shop signs in Putrajaya, the administrative capital, south of Kuala Lumpur. They confirmed the pattern of the dominance of both Malay and English in the linguistic landscape, but in their case there was a greater prominence of English due to its placement and the size of the texts. The latter would be in conflict with the official language policy.

Far from Kuala Lumpur in the northern state of Penang, Ben Said and Ong (2019) carried out a study of the historical development of shop signs in George Town, the third largest city of Malaysia. They were able to trace the first shop signs, in traditional Chinese, back to the 18th century. English appeared during the colonial period in the 19th and the first half of the 20th century. After independence in 1957, Malay became the only official language which led to many changes in signage. However, today, English is more prominent than other languages. In the south, McKiernan (2019) made an inventory of the linguistic landscape of four residential neighborhoods in Johor Bahru, a city on the border with Singapore. He found that English was used on 37% of signs, whereas Malay was used on 44% and Chinese appeared on 18%. Just over 1% of the remaining signs was distributed over incidental use of other languages, including Arabic, Italian, Latin and Spanish. Top-down signs were in compliance with government policy of using Malay. English was allowed to have a large presence on bottom-up signs which the author related to the official status of English in neighboring Singapore, and to the promotion of English by some local authorities, educational institutions and churches.

From the various studies in Malaysia, it becomes clear that English ranks high in terms of prestige and visibility, and that, depending on the location Malay may have a larger or smaller presence than English, even though this sometimes goes against the official language policy. Other languages have a more limited presence and are seen as less important. The respondents interviewed by Coluzzi and Kitade (2015) were, in general, satisfied with the status quo and they considered English as the international language that is useful for obtaining economic, cultural and educational advantages.

9.4.2.2 Brunei

The Jawi, a script based on Arabic, is probably what stands out most in the linguistic landscape of Bandar Seri Begawan, the capital of Brunei. A great deal of English can be seen, as well as Malay in Latin script. Brunei is a small country located on Borneo, the same island as Malaysia, with around 437,000 inhabitants. Since 1988, a law has prescribed the use of Jawi next to Roman script, but on top and twice as big. Coluzzi (2011,

Figure 9.6 Trilingual sign in Bandar Seri Begawan, Brunei

2012, 2020) has studied the linguistic landscape of the capital of Brunei. His main finding was that English and Malay (in Jawi or Roman script or both) were more or less equally dominant, on 79.4% and 82.2% of signs, whereas he encountered Chinese on 18.6% of signs (n = 102) (Coluzzi, 2011: 227–228). The three reasons for the extensive use of English that Coluzzi (2012: 237) mentions are the history of Brunei, globalization in general and the opinion of the inhabitants that English is more useful and prestigious than Standard Malay. He observes covert official prestige for English when he noted, 'It rarely comes first or is the most prominent language on the signs, but still it is everywhere' (Coluzzi, 2012: 238) (Figure 9.6).

9.4.2.3 Singapore

The places that make the linguistic landscape of Singapore special to an international visitor are most likely the ethnic neighborhoods of Little India and Chinatown with their display of Tamil and Chinese signs. There are also a few remnants of colonial architecture with English-only signs and impressive new buildings along the harbor front where English is pervasive in the shopping malls, although accompanied by big commercial names, including occasional Italian, French, Spanish and Chinese signs. The linguistic landscape reflects a complex multilingual society, although the first impression is that English is dominant.

Singapore has four official languages that create a multilingual and highly diverse linguistic cityscape. English has the highest social prestige and official signs, such as road and street names and names of government buildings, are usually in English. The other three official languages

Figure 9.7 Signpost in Little India, Singapore

are seen less frequently, except in ethnic neighborhoods like Chinatown, Malay Village and Little India, where they appear together with English (Figure 9.7). The language policy in Singapore generally takes a laissez-faire approach to private signage (Shang & Guo, 2017). Singapore has attracted the interest of several local and international investigators of its linguistic landscape. For two studies of Singapore's Chinatown, see Chapter 7 and for two studies of names in Singapore, see Chapter 11.

Tan (2014) analyzed the patterns of bilingual and multilingual signs in Singapore. The author noted that the signs at the entrance of all state schools use the four official languages, with Malay in Roman script on top, then Chinese in Chinese characters, followed by Tamil in Tamil script and English at the bottom. Although this pattern was the most common for signs with four languages, there were also many signs where English was placed on top. Monolingual signs in English were common, but the most frequent pattern was English–Chinese with English on top. In the mass rapid transport (MTR) stations, English was on top with only one other language below, depending on the neighborhood. Tan (2014: 459) suggests a division of labor between English and the other languages, pointing out the use of 'English to get on in the world and the "mother tongue" to connect to traditional ethnic values. Or English for the head, the "mother tongue" for the heart'. The presence of Chinese in Chinatown and Tamil in Little India is related to commercial interests and tourism, which also explains the limited presence of Japanese.

Other studies have examined parts of Singapore in quantitative terms. Shang and Guo (2017) surveyed 10 neighborhood centers in the

western part of Singapore. Based on a sample of 1,097 shop names, they found a predominance of English and Chinese. Almost all monolingual signs were in English (94%), bilingual signs combined English with Chinese in 97% of cases and multilingual signs contained at least English and Chinese in 91% of signs. Malay and Tamil only had a small presence. For Shang and Guo (2017: 197), the obvious dominance of English is 'associated with meritocracy, economic advantage, and upper class in social hierarchy'. Applying a similar quantitative approach, Tang (2020) surveyed the inside of 30 MTR stations and their immediate surroundings and collected 1,555 photographs of signs. The results were almost the same as those of Shang and Guo (2017) with English appearing on 95% of monolingual signs and 98% of bilingual signs; again a combination of English with Chinese was the most common while Tamil and Malay were much less common. Tang frames the pervasiveness of English as linguistic imperialism (as in Phillipson, 1992) and related the reasons for using English to the economy and interethnic communication. A general shift to English is underway in Singapore, while English is already on top in the linguistic hierarchy.

In a case study of a hawker center in Singapore, Leimgruber (2018) analyzed the signboards on top of the stalls and found that 63 out of the 70 stalls had English and 62 had Chinese, with much overlap. This finding confirms the predominance of bilingual signage found in other studies in other sites. Leimgruber (2018) deems the knowledge of both languages useful in order to understand the signs, since they often present different pieces of information. A much larger study of hawker centers in Singapore was presented by Lee (2022), who investigated 2,145 stalls in the 20 largest hawker centers (out of 114 in the city; it does not include the smaller center studied by Leimgruber). Her quantitative findings are evidently more detailed, but largely confirm the predominance of English. Of all signs, only about 10% were monolingual and of those half were in English. In bilingual and multilingual signs, English had a presence of 91.7%. In discussing individual cases, Lee can relate the language used to the time when the owner started the stall (depending on, for example, Chinese immigration waves or changes in language policies), as well as the relation of the name of the place to the type of food sold. Further, some unexpected combinations were found of traditional and simplified Chinese with Pinyin and/or English and romanized spellings of non-Mandarin dialects. The author concludes that 'beneath the seemingly English-dominant surface on official signs, there is another level of vibrant multilingual ecology in Singapore's hawker center stall signs' (Lee, 2022: 29).

Another angle is taken in the study by Hult and Kelly-Holmes (2019) who investigate the story behind the Norwegian signs of a tailor shop in Singapore. In a quantitative study, the few signs in Norwegian would only be an exception among the majority of English–Chinese signs. By

bringing out the story, the researchers were able to demonstrate how globalization has led the owner to a specific language choice which he uses for creative marketing purposes. The authors consider that the story is worth telling because it offers insights into the process of shaping linguistic landscapes.

In all three countries, we see that English is widely used in the linguistic landscape due to historical reasons and under the influence of globalizing forces, which Phillipson (1992) calls linguistic imperialism. English can be considered as the language highest in the hierarchy, even hypercentral in De Swaan's (2001) terminology, although it competes for visibility with Malay in Malaysia and Brunei. In specific environments, such as the airport in Kuala Lumpur or Chinatown in Singapore, the dominance of English is less clear and Malay or Chinese may contest its supremacy.

9.4.3 Hong Kong and Macao

The first thing that strikes a visitor about the cityscape of Hong Kong is the extraordinary number of signs in the shopping streets. Signs seem to come in all shapes and sizes; huge billboards side by side with small printed or handwritten signs and anything in between. The signs come in bright neon colors, some are faded and most are at eye level, but due to lack of space, many are also placed high on the façade of a building. The density of signs is just overwhelming and because Hong Kong is a vertical city with many high rise buildings, signs commonly advertise for shops, restaurants and services on higher floors (adding, for example, 2/F or 3/F to the name). This important characteristic of the high density of commercial signage and information in superimposed layers is mentioned in the reflections on language, texts and the city by Hutton (2011), who states that the greater the density the more Chinese characters dominate (Figure 9.8).

Figure 9.8 Extraordinary number of signs in Hong Kong

The English language has a clear presence on signs, in particular standing out in names, many of them international brands and other lesser known brands, although the first impression is that one sees Chinese more frequently, both in traditional and simplified script. Upon closer inspection, one notices that official street names have English on top (usually) and Chinese below. Bilingual signage is common, not only with English but also with Chinese on top, or with English on the left and Chinese on the right. Other languages are harder to encounter, although there are, of course, big commercial names that can be read as French, Italian or Spanish, similar to Kuala Lumpur, and if one looks carefully some of those languages along with others can be spotted.

The linguistic landscape of Macao is a different experience. Although at first sight it may seem similar to Hong Kong because you also see many signs with Chinese and English, the most striking aspect is the presence of Portuguese. This is, of course, related to its colonial history. Various researchers have systematically investigated the linguistic landscapes of Hong Kong and Macao from different angles and we present some of the outcomes of their work.

The cities of Hong Kong and Macao are located on the coast of the South China Sea and are connected by a bridge-tunnel that is 55 kilometers in length. Over 7 million people live in Hong Kong and less than 1 million people live in Macao, and in China both have the status of Special Administrative Region. Both cities are former colonies: Hong Kong was British from 1841 to 1997 and Macao was Portuguese from 1557 to 1999. Strictly speaking, Macao does not belong to the outer circle of English. In both cities, Chinese is an official language; English is the second official language in Hong Kong, and Portuguese is an official language of Macao. Legal regulations stipulate that one of the three official languages of Macao should be included on signs, although occasionally English-only signs are approved (Zhang & Chan, 2017: 28).

Wong and Chan (2018) traced the historical development of the linguistic landscape in Hong Kong in the period from 1957 to 2014. They observed a gradual transition from a monolingual Chinese linguistic landscape to a bilingual Chinese–English landscape, in particular from 1980 onwards. After the UK's handover to China in 1997, bilingualism continued, but with Chinese as the more prominent language, confirming the impressions given above. Wong and Chan (2018) further pointed out significant differences between economic sectors; for example, the use of English-only signs in luxury shopping areas. The variation in the prevalence of Chinese and English was substantiated by Lam and Graddol (2017) who examined the linguistic landscape of the International Finance Center (IFC), an iconic building complex in Hong Kong. This multistorey building is conceived of as a vertical landscape. Their findings showed more Chinese signage on the basement and lower-level

floors, with the podium and tower levels displaying more English. Lam and Graddol linked this language stratification to social groups. For example, the lower levels were frequented more by Filipino and Indonesian domestic helpers and the higher levels more by affluent mainland Chinese visitors, demonstrating a connection to the socioeconomic inequalities in society (Figure 9.9).

The directory of company names in the two office towers displayed all names in English but only about half of the names were also in Chinese. On bilingual signs, English was consistently on top and Chinese below.

English is not only a part of the colonial heritage because, as Lai (2013) argued, of its high status, but also it symbolically positions Hong Kong as 'Asia's World City' (see Chapter 4 for a summary of Lai [2013]). The neighboring city of Shenzhen, just across the border in mainland China, also aspires to become a world city just like Hong Kong. The linguistic landscape in Shenzhen is quite different, more similar to other major cities in China, where using English has been ordained on bilingual signs in a position below simplified Chinese. In their comparison of

Figure 9.9 International Finance Center, Hong Kong

Hong Kong and Shenzhen, Danielewicz-Betz and Graddol (2014) focused on varieties of English spelling and words such as elevator or lift. Obviously, they found more British English forms in Hong Kong, and more American English in Shenzhen. They presented various examples of a local Chinese-English variety, reflecting Chinese linguistic features or errors, among others in the use of numbers, prepositions, articles and the past tense. On both sides of the border, they saw many examples of mixing and an ongoing shift from British to American English or to a local variety. Slowly, the use of English seems to be decreasing in Hong Kong whereas it is increasing in Shenzhen and the rest of the mainland.

Another rather different take on Hong Kong was presented by Lou (2017) who compared the signage, spatial arrangements and interactions in three markets located in the New Territories, Hong Kong Island and Kowloon. Her data are based on interviews and visits to the markets with informants, which enabled her to present short ethnographic descriptions of each place from a geosemiotic perspective. In each case, she emphasized the relationships between written and oral languages, space and place. The wet market of fish and meat products had only minimal signage, implying that English was virtually absent. In contrast, the supermarket had various large English-only displays and smaller bilingual Chinese-English signs. The third market, a Nepali shop, only had an English name and almost no signs because texts were only available on the products' packaging and had to be read from there. In another publication, Lou (2016c) recounts the story of a huge landmark neon sign of a restaurant in Hong Kong with a prominent English name and a smaller Chinese name. Originally, when the sign was first placed, it was seen as an emblem of entrepreneurship; later, when it was threatened with removal due to government regulations, it became part of a discourse of nostalgia, and finally it became a sort of monument that is preserved in a museum in a new context. The importance of this ethnographic study of one sign demonstrates 'the complex processes in which signage is designed, created, and perceived… highlight[ing] the power of audience… in shaping the meaning of a sign' (Lou, 2016c: 219).

Also in Hong Kong, Bolton *et al.* (2020) analyzed the Lennon Walls that appeared all over the city as part of the Umbrella protests in 2019. These walls contained hundreds of Post-it notes with texts related to the protests. Based on a sample of 338 photos of the walls, the authors selectively analyzed the most prominent features of the communication displayed on the Lennon Walls. By far, most texts were written in Chinese, in particular using traditional characters, with Hong Kong special features and some Cantonese characters. The protests also encouraged the use of the romanized script of Cantonese, making it harder for non-Cantonese speakers to understand. Some messages contained English slogans like 'Be with us' or 'Together we stand'. The authors argue that the linguistic landscape of the Lennon Walls can 'illustrate how the language

used on these walls reflects and indexes the broader sociolinguistic realities and conflicts of the wider society' (Bolton *et al.*, 2020: 295).

These studies on Hong Kong are good examples of how diverse the linguistic landscape can be in one city and how the frequency and prevalence of English can differ to an extraordinary degree.

9.4.3.1 Macao

As said, what is noticeably different about the signage in Macao is that some of it is written in Portuguese. The case of Macao is particularly interesting because Portuguese, which is the language of less than 1% of the population, has a relatively strong presence in a trilingual landscape. The local language policy wants to maintain the distinct Chinese (Cantonese)–Portuguese identity of Macao compared to the mainland because it helps to reinforce its autonomy (Figure 9.10) (Neves, 2016).

Figure 9.10 Trilingual sign in Macao

Various studies have taken a quantitative approach to figure out how much Portuguese is used in comparison with Chinese and English. Neves (2016) investigated three pedestrian areas with different histories related to Portuguese colonization. In the three areas (business, traditional and recreational), she collected almost 500 photographs. She observed substantial differences between the presence of English and Portuguese in the areas, with English the least frequent in the traditional area. In top-down and bottom-up signs, English had a similar presence, while Portuguese was more frequently displayed on top-down signs due to the language policy. Chinese (Cantonese) was the most prominent language in all areas, similar to Hong Kong, whereas English and Portuguese were competing for visibility. Neves argues that Portuguese is not directly affected by the presence of English due to the top-down support it receives (Figure 9.10).

In another quantitative study, Chenhui and Ruilin (2020) collected 307 signs across different parts of Macao. They found that 13% of the signs were in Chinese only, 37% were bilingual Chinese–English, 25% Chinese–Portuguese and 25% trilingual. In almost all signs (97%), Chinese came first, on top or as most prominent. Their results are more detailed, but by and large are in agreement with the results of Neves (2016). According to Coluzzi's (2020) small-scale research in the main central square of Macao, most of the 56 signs were trilingual with Chinese, Portuguese and English and only one with Italian, so he observed slightly more Portuguese than English. Radwańska-Williams (2018) investigated signs in the main street of the historical center of Macao. Her detailed qualitative description of the street included features of the architecture, urban design and cultural artifacts. She observed that after excluding international brand names like Omega and Gucci, few signs were in English only and equally few were in Portuguese only or Chinese only. The majority of signs were bilingual, either Chinese–English or Chinese–Portuguese, but there were no bilingual English–Portuguese signs and only a few signs in the three languages. Based on her knowledge of the local situation, she concluded that since the handover in 1999, there has been an increase in English and Mandarin, but no less Cantonese and only a slight decrease in Portuguese.

Zhang and Chan (2017) focused on tradition and modernity in multilingual shop names in a local residential area and the casino area. An interesting observation was that sometimes the external name of a casino was in English, the sign at the door was bilingual Chinese–English and on the inside in Chinese only. The authors interpret this as an arrangement from a globalized façade via a glocalized inner layer to the Chinese core of Macao. Also looking at casinos, but this time their brochures, Yan (2019) compared them to the language on signposts for tourism. The brochures are either in Chinese only (both simplified and traditional) or bilingual Chinese–English. Another finding is that the tourism signposts (n = 55), which were placed by an official agency in 2010, were in

four languages: Chinese (on top), followed by Portuguese, English and Japanese, the latter because of the importance of Japanese tourists as a target group. Yan (2019) confirmed that Portuguese evoked authenticity and was used for reasons of heritage tourism. The signs could be rather varied, some were older and had Portuguese on top followed by Chinese, while others had Chinese, Portuguese and English. Zhang (2016) collected 150 multilingual posters, both from the internet and by taking photos. He found that almost all commercial posters were bilingual Chinese–English (88%), similar to civic posters (66%), although some were trilingual (16%). Government posters were mainly trilingual (58%) or bilingual Chinese–Portuguese or Chinese–English. In general, the results indicate an increase in the status of Chinese (simplified) and English and a decrease in Portuguese.

A different approach was taken by Yan and Lee (2014) who studied how tourists perceive the street names in Macao by asking questions about bilingual Chinese–Portuguese and trilingual street signs. Among their sample of tourists (n = 397) they found no clear difference between the perceptions of bilingual and trilingual signs, although the tourists who did not have Chinese or Portuguese were somewhat more concerned about bilingual signs without English. Chenhui and Ruilin (2020: 79) also think that a relatively small proportion of English 'has a negative impact on the image of the city'.

Overall, comparing the linguistic landscapes in Hong Kong and Macao, the studies suggest that both cities have a multilingual linguistic landscape in which bilingual Chinese–English signage is dominant, with a stronger presence of Chinese, and in the case of Macao, also a substantial presence of Portuguese. Hong Kong may be unique as a city where the display of English seems to be decreasing, whereas it is increasing in Macao and in cities in China in general. Portuguese is gradually decreasing, and Zhang and Chan (2017) observed English substituting Portuguese on signage as part of a trend toward modernization and Western ideologies. English is only exceptionally on top of the language hierarchy in Hong Kong and Macao, and in both cities Chinese and English seem to compete for prominence.

After discussing and comparing various contexts in Asia, we now turn to Africa to examine the position of English in public spaces in various outer circle countries.

9.4.4 Africa

In Africa, 27 out of 54 countries have English as an official or second language, in most cases related to their past colonial relationship with the British Empire. This legacy across the continent can be interpreted as an example of linguistic imperialism (Phillipson, 1992). A place for English at the top of the language hierarchy, or its function as a hypercentral

language (De Swaan, 2001) is typical for most of the countries. For example, based on a study in the capital of Botswana, Akindele (2011: 10) concluded that 'English dominates the landscape as it is in the case of other Anglo African countries today'. As we will see below, various linguistic landscape studies have confirmed and further nuanced the overall position of English in societies in Africa.

There are no studies from all African countries as yet; the Zotero online bibliography (Troyer, 2022) lists publications of studies in 22 countries and among those are 11 countries with only one or two publications. In this section, we discuss a limited number of studies all reporting that the linguistic landscapes are dominated by English to different degrees in South Africa, The Gambia, Uganda, Zambia and Botswana. A special case is Tanzania where there has been an effort to push back the role of English in favor of Swahili. The countries of Ethiopia and Rwanda where English has an important place will also be discussed. Finally, we mention some special characteristics of the African countryside in relation to signage (or absence thereof).

As said, researchers have found different degrees of English dominance in the linguistic landscapes of all of these countries, most of which are highly multilingual.

South Africa has been considered an inner circle country due to the position of English in society (Lee & Jun, 2016), although this has also been nuanced as a mixture of inner and outer circles by local scholars such as Coetzee-Van Rooy (2008). Officially, the South African constitution recognizes 11 languages, and there are at least another 25 indigenous languages. It is thus an intriguingly multilingual country, where only an estimated 10% of the population speaks English as their first language. In the continent of Africa, it is the country where by far most linguistic landscapes studies have been carried out. The Zotero online bibliography locates no less than 38 studies in South Africa on a wide variety of topics; however, we discuss only a few here, focusing mainly on the role of English.

In a study of a township near Johannesburg, Dowling (2014) found that 56% of signs were in English only, 40% were bilingual English plus an African language and only 3.6% were in an African language only. In another publication, Dowling (2012) pointed to the dominance of English on signs in South Africa, giving the example of a tourist arriving in the city of Cape Town who would have the impression of visiting a monolingual English country. Only on second glance did the signs give 'you fragments of the Xhosa language as if it were an interesting fossil or a quaint ethnic artefact' (Dowling, 2012: 245). Stroud and Mpendukana (2009: 363) mentioned a 'wholesale shift to English' related to the social transformation of the country after 1994. They offered a qualitative analysis of languages and their varieties on billboards in the Western Cape township of Khayelitsha. Their analysis showed, on the one hand, that in 'sites of luxury' English had prestige, was highly edited and was written

according to standard norms. In some, English was mixed with some pan-African words that are common in many African languages. On the other hand, in 'sites of necessity', there were local Englishes, which were unedited and written using non-standard spelling, including blending and hybrids adapted to isiXhosa, the local language. In further multimodal analysis of the signage in the same township, Stroud and Mpendukana (2010) pointed to the wide range of functions of English, mentioning aesthetic, ludic, playful, humor, interpersonal, transactional, interactional and informational functions. Hybrid linguistic structures arose from a mixture of English and isiXhosa. In the township of Soshanguve, near Pretoria, Álvarez-Mosquera and Coetzee (2018) analyzed the signage in a market. There, they found that only 2 of 150 signs collected had no English on them, although one-third of the signs were multilingual. This 'overwhelming use of English in the signs' again showed 'a mismatch between the language used on the signs and what is spoken in the area' (Álvarez-Mosquera & Coetzee, 2018: 7–8). In fact, the language of interaction in the market was not English, but African languages or Sepitori, a local African mixed language. The qualitative findings by Williams and Lanza (2016) on Amharic and Somali, used on a few signs only, corroborate the visual dominance of English in 'Little Mogadishu' in the business district of Belville, a town near Cape Town. In another study, Loth (2019) observed a majority of English-only signs in the Kopanong Local Municipality, near Bloemfontein, an area where English is not widely spoken. When English is combined with African languages, as in the townships, it demonstrates a covert value and it expresses identity. Or, it can be analyzed as a form of commodification of the local African languages, as Banda and Mokwena (2019) demonstrated. They examined various examples of signs in which the local languages and localized English were juxtaposed. Those signs presented different strategies which lead to the Africanization of economic practices, making signs exotic as a marketing tool or trying to attract local clients.

In three rural settings (Philippolis, Springfontein and Trompsburg), Kotze and Du Plessis (2010) found that English was visible on 73% of signs, including 20% bilingual Afrikaans–English signs, thus less English than Dowling found in Cape Town. Only 18% of signs were in one of three African languages, Sesotho, isiXhosa and Setswana, spoken by the majority of the local population. The names of some government signs were displayed in Afrikaans, English and Sesotho, but the rest of the information was in English. The authors argued that the pervasive public display of English reflects its position in society as the language of prestige, upward mobility and its usefulness for wider communication. Du Plessis (2011) investigated changes in the linguistic landscapes of the same three towns in relation to formal regulations by different layers of government. He presented the following results: 30.6% English only; 15.3% Afrikaans only; 35% bilingual Afrikaans/English; 4.6% bilingual

English/African language; and 10.7% trilingual Afrikaans/English/African language. Only three signs had an African language or were bilingual with two African languages (n = 366). This outcome again showed the dominance of English (included on 84.7% of the signs by public bodies) and the lack of visibility for African languages. New signs issued by governments tended to be English only. In another study, Du Plessis (2010) was able to trace language display with the help of old photographs of Bloemfontein/Mangaung. Between 1846 and 1994, he observed periods of monolingual English alternating with periods of bilingual English–Dutch or English–Afrikaans. After 1994, the strictly defined bilingualism from before turned into a less clear bilingual or multilingual situation. Du Plessis discusses examples of new signs that introduce English monolingualism, despite an official policy of trilingualism. In a qualitative study based on focus groups with post-graduate students, Bock and Stroud (2019: 13) apply a broad conception of semiotic landscaping 'to interrogate how, it can be that apartheid remains a structuring motif [for] young South Africans'. The students were asked what they know about apartheid, how they feel about it and how it affects them. Their narratives made clear that apartheid endures as an imagined landscape from the past, and it is still present in their daily lives in certain places. Those constellations do not go away but keep 'haunting' the students and thus the authors refer to zombie landscapes, which are 'reconstructed and imagined landscapes, pieced together through traces of memory and the visceralities of affect these memories call forth' (Bock & Stroud, 2019: 15). Obviously, apartheid remains an enduring aspect of the South African context.

In a somewhat different study, Sebba (2013) described the historical development of language hierarchy in South Africa on stamps, coins and banknotes, which he includes as part of the linguistic landscape (see Sebba, 2010). Until 1994, Afrikaans and English were treated strictly equally; afterwards, stamps became monolingual in English only and for the different denominations of coins and banknotes a rotation system for the 11 official languages was designed, although English was used more often. Similar results for the dominance of English in signage were found at various South African universities by Abongdia and Foncha (2014), Adekunle *et al.* (2019) and Kadenge (2015), with the latter asking almost desperately: 'Where art thou Sesotho?' (see Chapter 10 for a discussion of these studies). Also, Kretzer and Kaschula's (2021) examination of language policy documents and school mottoes found that English dominated. From different angles, all these studies confirm the dominance of English in public spaces in South Africa.

The linguistic landscape of The Gambia was studied by Juffermans (2012). He wanted to find African languages on signs, yet it was difficult to find any. He narrates how he became desperate when he collected a large amount of photographs of signs that were only in English, although some were in the local variety of Gambian-English or some had a local

proper name. He then describes the linguistic landscape with the words 'awkwardly monolingual'. Juffermans (2014) lists three main characteristics of the linguistic landscape in The Gambia, which could also be applied to other African countries. First, he mentions the dominance and creative use of English; second, the limited use of local languages, only for emblematic purposes; and third, the abundant use of images. Juffermans further observes a fluid and flexible use of English that is not evaluated against standard norms which he called 'Englishing'.

In Uganda, Legère and Rosendal (2019) examined the role of English as the dominant written language in society, including the linguistic landscape. They carried out an inventory of signs in eight towns across Uganda (n = 2,026 in 43 streets) and found similar patterns in the signage, with over 90% having English. An exception was in the city of Gulu, where they found 24% of signs, mainly billboards, having a combination of English and Acholi, the language of the region. In Kampala, the capital, almost all signs were monolingual English, even though Kampala is linguistically highly diverse and only a small percentage of the population can speak English. However, Swahili was almost invisible despite being an official language of the country. The local language, Ganda, had some limited visibility in the outskirts of the capital and in the surrounding region.

In Zambia, Banda and Jimaima (2017) found a similar general dominance of English. In a study of the urban centers of Lusaka, the capital, and the city of Livingstone, they discovered on average around half of signs had English only and another 40% combined English with one or more local languages. The use of local African languages seemed to be more widespread in Zambia than, for example, in The Gambia or Uganda. The hegemony of English has some consequences that are highlighted by Jimaima and Banda (2020) in their analysis of signage and other artifacts in the tourist sites of the Livingstone Museum and Victoria Falls. It is telling that the English names of colonial times have been kept for the museum and the falls, where the authors found English on, respectively, 90% and 77% of signs. They concluded that 'the remembrance is largely shaped by what colonial hegemony stipulated and handed down to postcolonial government' (Jimaima & Banda, 2020: 108). They also point to the erasure of the language diversity of Zambia since only four local languages could be found on just a few signs. For them, using only those four languages obscures 'the multilingual nature of the landscape upon which the museum is built' (Jimaima & Banda, 2020: 101). The exclusive use of those four local languages in turn erases the existence of multiple other local languages. In contrast, Costley *et al.* (2022) emphasized a significant increase in the use of the African languages Bemba and Nyanja in recent years. They closely examined advertising on 15 roadside billboards in Ndola, the third largest city of Zambia. They started from a translanguaging perspective in which the fluid boundaries between

languages, common in spoken languages, were singled out as important. They observed a change in the urban linguistic landscape with the introduction of large advertising billboards along the roads. In the early 2010s, African languages were sometimes used in advertisements as fragments (words or phrases) in an English base text. Ten years later, there has been a shift to more frequent use of African languages which have obtained greater visibility, in particular in advertisements of banks and telephone companies. The texts today are examples of complementary multilingual writing (Reh, 2004) with a complex and dynamic use of languages in which English and Bemba or Nyanja are combined in ways that reflect the translanguaging practices of speakers. In the area of health, they presented examples of this shift to multilingualism on billboards in the context of the COVID-19 pandemic. According to Costley *et al*. (2022: 4), the changes have to be placed in the context of 'wider, continent-wide phenomena, which can be seen as part of an "African language renaissance"'.

In Gaborone, the capital of Botswana, Akindele (2011) studied the linguistic landscape of some shopping malls and the bus station. The results showed 65% English-only signs (n = 270) and another 16% were bilingual, either English–Chinese (7%) or English–Setswana (9%), the latter being an official language of the country next to English. There were no signs in other local languages. Obviously, English dominates, although Setswana-only and Chinese-only signs also have a presence each of 9%.

Tanzania is another fascinating country for linguistic landscape studies because of the competition between English and Kiswahili (Swahili) on display in public spaces. Since its independence in 1964, Kiswahili has been an official language of Tanzania. The Tanzanian government has supported strengthening the position of Kiswahili in society to reinforce the cohesion of the country and to make it equal to English, the legacy of colonial times. Of special importance was the language policy implemented in 1974, giving preference to Kiswahili and replacing English, which, among other things, caused substantial changes in the linguistic landscape. Today, Kiswahili is widely used in Tanzanian society and it is also highly visible in the linguistic landscape. For example, in Dar es Salaam the former capital, all government-related institutions have bilingual Kiswahili and English names, in agreement with the language policy.

Bwenge (2009) studied 52 billboards along the main road leading into the city of Dar es Salaam. He found a dominance of Swahili on two-thirds of the signs and one-third was in English. Bwenge (2012) summarized the history of English in Tanzanian society in general and the changes in policy. The Swahilization of the public domain was part of the *ujamaa* movement for independence which made Swahili the most important language in most public domains in the 1970s. However, English has since returned largely to its former position. As Bwenge (2012: 177) observed, 'Dar es Salaam's street signs clearly demonstrate

the navigations and negotiations between the two languages pertaining to the public space'. Legère and Rosendal (2019) also noted the recent trend toward the increased use of English, for example at the university campus. Mdukula (2017) investigated the linguistic landscape of a large hospital in Dar es Salaam. There, almost all signs were top-down and most were monolingual (60%). The number of signs in English only (36%) and Swahili only (35%) were similar, whereas 26% of the signs were bilingual and a small number also included Chinese (3%). Mdukula (2017) concluded that there were no clear policies and the linguistic landscape at the time excluded access to information for many hospital patients who spoke Swahili. In a follow-up study that included two other hospitals, Mdukula (2021: 92) presented the same statistics and claimed in the conclusion that 'English, not Kiswahili was predominantly represented on linguistic landscape signs in the researched public hospitals'.

Lusekelo and Mdukula (2021) studied signage in Dodoma, the administrative capital of Tanzania. Their main question centered on which language, English or Kiswahili, dominated the linguistic landscape and in trying to figure out the answer, they considered an interesting set of criteria. Superficially, when findings were based on criteria such as frequency, English-only signs or the first line on a sign, it was obvious that English dominated. Taking other criteria into account, such as font size and color, there was no clear difference. However, when counting the total number of words used on all signs, English still predominated, but in bilingual signs they found that Kiswahili was dominant, with only a few scattered English words. English also prevailed in acronyms, but they followed Kiswahili grammar. In the end, they concluded that both English and Kiswahili were important in public display in Tanzania. Lusekelo and Alphonce (2018) explicitly challenged the idea that the use of English in Tanzania is limited in comparison to Swahili. They investigated billboards and shop signs in five regions in Tanzania where their results showed that English was dominant and took the highest place in the language hierarchy. Only in bilingual signs did Kiswahili have a higher total number of words than English. The findings of Lusekelo and Alphonce (2018) were confirmed by Lusekelo (2019) who examined signage in Orkesumet, a town in the north of Tanzania. He found monolingual signs either in English or in Kiswahili and bilingual signage where both languages were given equal weight or one language overrode the other. However, in contrast to other studies in Dar es Salaam, he did not find any hybridity of English and Kiswahili, nor any use of the Maasai local language. In another study, Gallina (2016) considered the presence of Italian in the linguistic landscape of Dar es Salaam. Her selective sample of 32 photos showed that Italian was mainly related to food or fashion on product labels, shop signs and menus. Interestingly, Italian only appeared on its own or in combination with English, not together with Kiswahili (except for one sign). She found a distribution of Italian

similar to that found in other parts of the world and she argued that Italian was used for economic reasons and because it was seen as attractive.

Muaka (2018) was interested to see how youth language is used in the linguistic landscapes of Dar es Salaam in Tanzania and Nairobi and Mombasa in Kenya. In both countries, Kiswahili is an official language, but is more often used in Tanzania than in Kenya. However, English is seen as having higher prestige. Muaka collected some 300 photos of billboards along main city streets and roads to the airport to look into language creativity. He analyzed various examples of billboards of, among others, telephone companies and banks (as Juffermans did in The Gambia), considering that mobile phones and digital banking have become essential, especially for younger generations. Youth language is gaining a presence on some billboards as a reflection of those changes in society. However, compared to Swahili and English, the use of youth language remained marginal.

In Rwanda, the languages Kinyarwanda (Rwanda), French, English and Swahili are official, of which Kinyarwanda is spoken by almost all citizens (99.4%), implying that Rwanda, a former Belgian colony, has a homogeneous population. Rosendal (2009) wanted to find out how, after the civil war (1990–1994), the change in language policy from Kinyarwanda–French bilingualism to Kinyarwanda–French–English trilingualism had influenced the linguistic landscape. In a study of shop signs (n = 914) and billboards (n = 221) in the capital Kigali and the city of Butare, she found on average more French than English on shop signs, whereas English had a similar presence on billboards. The order in which the languages were officially used was not uniform, but there was a trend toward introducing more English on new signs while French and Kinyarwanda were declining. One-third of the signs were multilingual, written mostly in two of the three official languages, although the meaning of the messages in the different languages only partially overlapped (Legère & Rosendal, 2019). The official language policy obviously influences top-down signs, but it also has an effect on other domains, for example, commercial signage. In Rwanda, English or French are often mixed with Kinyarwanda. In general, larger companies use African languages as a strategy for advertising and to reach a larger pool of customers. According to Legère and Rosendal (2019: 166), 'the use of African languages rather than English indexes a modern identity' and at the same time billboards in English (or French) equally want to impress potential buyers. In a follow-up study, Rosendal and Amini Ngabonziza (2022) compared the linguistic landscapes of the same streets in the same locations between 2008 and 2018. They found that the linguistic landscape had changed dramatically due to a sharp increase in the use of English, which had more than doubled in Kigali from 23% to 58%, whereas French had declined sharply. The reasons can be attributed to important changes in the language policy, which made English the sole language of instruction in education and a

language of administration in 2008. In 2011–2012, streets and towns were renamed, taking away French names. English is perceived as powerful and necessary for economic development, technology and science, which is accompanied by ideologies of its positive qualities, whereas French is degraded and the national language Kinyarwanda is ignored. The authors refer to the fact that 'multilingualism in the four official languages is something of a utopian idea' (Rosendal & Amini Ngabonziza, 2022: 14). The language policy *de facto* promotes English and this is reflected in the signage.

In Ethiopia, over 80 languages are spoken and the largest linguistic communities are Amharic and Oromo, which together comprise over 60% of the population, followed by the communities of speakers of Tigrinya and Somali. These four languages plus Afar are now the official working languages of the government. English, however, is *de facto* the official second language in Ethiopia (Lanza & Woldemariam, 2014a: 59). Several studies of the Ethiopian linguistic landscape have been carried out, and we can discuss the results of some that are relevant for the public display of English. In their study of Mekele, the capital of the Tigray region, Lanza and Woldemariam (2009) found that Tigrinya, the official language of the region, had a substantial presence on monolingual and bilingual signs, next to Amharic and English. Of all signs, 35% were bilingual English–Amharic, 31% Tigrinya–English, 10% were in English only and 1% were trilingual. Thus, English had a strong presence as it was included on 77% of all signs (n = 376). Signs that were regionally relevant had more Tigrinya and nationally oriented signs displayed more Amharic. Lanza and Woldemariam (2009) found that English has a strong presence as it is included on 77% of all signs (see Chapter 7 for a summary of the study). In a follow-up study (Lanza & Woldemariam, 2014a; Woldemariam & Lanza, 2014), the authors compared Mekele to the city of Adama in Oromia, the largest region of the country. In Adama, they observed that most signs were bilingual, containing Amharic in combination with either Oromo or English, but were not in Amharic only. In both cities, the authors observed English being used in hybrid forms and mostly as an emblem of modernity with symbolic functions. In general, they noticed a blurring of the boundaries between languages. In another study in the Oromia region, Fekede and Gemechu (2016) analyzed the linguistic landscapes of the towns of Adama, Sabata and Jimma. They applied ethnolinguistic vitality scores to the presence of Amharic, English and Oromo (Afan Oromo) in signs and found that English dominated the linguistic landscapes of the towns. English was used more for symbolic functions, whereas Amharic had the highest ethnolinguistic vitality score and was used for communicative functions. The language spoken by the majority of the population, Oromo, was not used on monolingual signs, even though it is the official language of the regional government. Obviously, also in this case the linguistic landscape did not reflect the

languages spoken by the different communities. Without carrying out any systematic counts of languages on signs, Wolff *et al.* (2013) made the observation that Oromo and Amharic had similar visibility in public spaces, where Amharic on bilingual signs usually appeared in second position. English also appeared frequently on signs, usually in third place, and it was used mainly for symbolic reasons. In contrast, the university campus was completely bilingual Amharic–English and Oromo had no visibility. In a study located in the capital of Addis Ababa, Woldemariam and Lanza (2012) examined a sample of religious messages displayed in the linguistic landscape on banners, posters, stickers on vehicles, shops, offices, clothing and the university campus. The texts were monolingual and Amharic was used most frequently. In a few cases, signs were in the classical Semitic language, Ge'ez, which is used in the Ethiopian Orthodox Church. English would be used by protestant groups that are related to churches abroad. Woldemariam and Lanza's analysis showed how the linguistic landscape can display the tensions between different religious groups and how language choice is a part of it.

In another publication, Lanza and Woldemariam (2014b) used the concept 'sites of luxury' based on Stroud and Mpendukana (2009), to examine English and brand names in Addis Ababa. English was highly visible in the linguistic landscape of the capital, including several advertisements for English schools and imitations of international brands. Smaller shops also used English on their signs, a language which the owners did not speak well, but just enough for their business. The authors concluded that the use of English is associated with prestige, modernity and economic development and, at the same time, it indexes an identity of distinction and luxury. Mendisu *et al.* (2016) focused on the visibility of the minority languages Gedeo and Koorete in Southern Ethiopia (see Chapter 7). They included numbers on the presence of English. In Dilla, the first town, English was present on 66% of all signs (n = 121), mostly in combination with Amharic. In Amarro-Keele, the second town, the dominance of Amharic was even stronger, appearing on 99% of signs (n = 69) and English was present on 32%, but only on bilingual signs, except one. There were substantial differences between the towns, but these figures demonstrate again that English has deeply penetrated the linguistic landscape of cities, towns and villages around the world.

A general aspect of linguistic landscapes in Africa is that outside the main urban centers many shops do not have any signs at all, as Legère and Rosendal (2019) remind us. For example, only half of the shops in the regional towns in Uganda which they studied had a sign. The lack of written language on signs obviously has consequences for linguistic landscape studies. This absence was the main topic in studies by Juffermans and Coppoolse (2014) who investigated literacy strategies, and by Banda and Jimaima (2015) who focused on oral narratives.

Juffermans (2014) emphasized the importance of the use of images on signage in The Gambia because of the relatively high rate of illiteracy. To understand how literacy works in relation to signage, Juffermans and Coppoolse (2012) carried out a small ethnographic experiment in a village in the southwest of The Gambia. Oral multilingualism is the rule among the 248 villagers, and only a small number of people can read. First, the researchers fully documented the linguistic landscape, which had only 23 signs on the 6 kilometers of the village road. Those signs were mainly in English, although a few signs had some Mandinka, Arabic and Chinese. They then presented photographs of some signs to a group of 20 informants, who were categorized as literate, low-literate or non-literate. They found that people used different interpretation strategies to understand the signs. Between the perfect readers and the people who could not make much sense of the signs, it was the in-between group of low-literate readers in particular who used various visual cues, e.g. flags, to interpret and read the signs. This experiment demonstrated that in such contexts it is not so much about reading English (or not), but more about the strategies for interpreting signs, where multimodal aspects play an important role.

In the south of Zambia, in another study in a rural area, Banda and Jimaima (2015) based their analysis on the observation that many signs were faded or did not exist and the few signs that did exist were most often in English. They discuss several examples of signs that have been repurposed from existing materials, such as a sign in English using cheap materials intentionally to index cheap products. In another example, they found a sign in three languages (a local language, English and Chinese) to index low-priced lodgings (on the use of Chinese signage in Zambia, see Banda *et al.*, 2019). In these rural communities, African languages flourish in oral communication, similar to The Gambia and other African countries, and thus the authors conceive of signs in these rural contexts in a rather broad sense, including objects such as trees, rivers, mounds and buildings, and they emphasize the narrations of place. They argue that the local people use oral linguascaping, which they apply, for example, for finding their way in a landscape without any other signage.

In concluding this section on studies in countries in Africa, we can refer to Legère and Rosendal (2019) who explained that the extensive use of English is related to global influences, among which they mention high prestige, international reputation, commercial interests and a suggestion of better quality products. Similar factors have been mentioned in other contexts. English has become a part of the language ecology of African countries and, in that sense, English has become a local language, especially in the larger urban areas. Whether there is indeed a shift toward the increased use of African languages as observed by Costley *et al.* (2022) has to be confirmed by future investigations.

9.5 The Display of English in the Expanding Circle

In the current globalized era, English has diffused widely to just about all of what have been called 'non-English-speaking countries', which Kachru (1992) referred to as the expanding circle in his three circle model. In those countries, the presence of English is not related to a local population that commonly speaks English. On signage, English usually appears next to other languages, and the ubiquity of English often implies multilingualism, albeit to different degrees and in complex patterns. In countries of the expanding circle, a great deal of interesting work has been done on the role of English in public spaces. We discuss examples according to the place of English in the language hierarchy. We distinguish between English in second place, which is the most common pattern, and English in first or third place, as well as the near absence of English.

Before considering some specific case studies, we first look into prestige as a concept of the reputation or esteem that is frequently associated with the use of English on signage, or in society at large. We link this to the position of English in the hierarchy of languages and we also observe some differences in the presence of English across contexts including strata of shopping streets. Finally, we consider some linguistic aspects of the use of English discussed in various studies. We aim to paint a nuanced and complex picture and focus on the exceptions because, as we have argued, languages inherently have unequal places in linguistic landscapes (see the multilingual inequality in public spaces [MIPS] model in Chapter 3).

As we mentioned in Section 9.1, many different reasons are given for using English in linguistic landscapes. For example, English can be perceived as being more prestigious than local languages, a factor we mentioned in our discussion of the role of English on signs in our early comparison of Donostia-San Sebastián with Ljouwert-Leeuwarden (Cenoz & Gorter, 2006: 79). There, we also pointed to Piller's (2001) work on multilingual advertisements in which she argued that the use of English activates connotational values such as international and future orientation, success, sophistication and fun. Along the same lines, writing on bilingualism in the media, Androutsopoulos (2007: 221) employs terms overlapping with Piller, and he adds associations of English with novelty, modernity, technological excellence and hedonism. Blackwood and Tufi (2015: 187) preferred cosmopolitanism as a concept, although they mentioned prestige, modernity, creativity, humor and wealth as characteristics attributed to English in the linguistic landscape literature. Several other terms are associated with the use of English: snob appeal (Rosenbaum *et al.*, 1977), cool or sexy (Griffin, 2001), snobbism (Kasanga, 2019), fashionable (Martinez, 2015; McArthur, 2000), status (Bruyèl-Olmedo & Juan-Garau, 2009; Legère & Rosendal, 2019), profit

(Vandenbroucke, 2016) and economic advantage (Mežek, 2009; Shang & Guo, 2017). We came across several of those terms in studies in the outer circle countries in Asia and in Africa. The list of similar terms could even be extended further. However, most terms seem to point in the same direction and they are related to the symbolic function of English and its reputation as a global language. We prefer the overarching term 'prestige' to best summarize and explain the position of English in linguistic landscapes. In sociological terms, prestige can be broadly defined as a general concept that refers to the reputation or esteem associated with one's position in society. In sociolinguistics, the prestige of a language has been described as 'the level of regard normally accorded a specific language or dialect within a speech community, relative to other languages or dialects' (Patterson & West, 2018: 243). It is thus a term that indicates the relative position of languages vis-à-vis each other, not an absolute measurement. We will use prestige here as an umbrella term that can provide reasons for the display of English in public spaces around the world compared to other languages.

We know that English is usually taken for granted in inner circle countries and therefore its prestige does not play a significant role. However, we saw in the outer circle countries, in particular the former British colonies in Africa and Asia, that the strong position of English today is not only a matter of colonial heritage or official status. Authors frequently mention that the dominant position of English is strengthened due to its prestige in society (or using a similar term). For all other countries in the expanding circle, as we will see below, the reasons for using English are also mainly explained in terms of prestige, which can be related to social, political, psychological or economic factors.

A distinction for using English on signs can be made between, on the one hand, a prestige factor which is symbolic and related to social values, and, on the other hand, a practical factor which is related to providing information. A distinction between these two factors has been commonly made in many studies. It is evident that the presence of English not only has that informational function, but that there is also an important symbolic function for a non-English-speaking local population. In such cases, using English gives social prestige to the product or the sign maker. The high prestige of English is usually associated with its position as a global language and its perception as economically powerful, commercially desirable, psychologically attractive or politically correct.

9.5.1 English in second place in the language hierarchy

In Section 9.2, we mentioned that De Swaan (2001) positions English as a hypercentral language at the top of the hierarchy of languages in his world language system. In the foregoing, we saw that the presence of English on public signage in inner and outer circle countries in Africa

and Asia, such as The Gambia and India, is indeed completely dominant. However, as we will see below, English does not sit at the highest position of the language hierarchy in many other contexts. Obviously, in expanding circle countries, English does not have the same historical or colonial reasons for its current position in society, but due to globalization processes its prestige has grown. Linguistic landscape research helps to clarify the relative position of English in a specific country, city or context, and indicates how English ranks in comparison to other languages.

A recurrent finding of many studies on expanding circle countries is that English takes 'second place' in the language hierarchy, after the official state language. To determine the rank of English, investigators use different indicators such as frequency, dominance and visibility. Similar patterns of English ranking in second position, compared to the state language (and sometimes other languages), have been reported for several European countries and cities, located in the expanding circle.

We already saw the pattern of English taking second place in the four classic studies published in 2006 (Backhaus; Ben-Rafael *et al.*; Cenoz & Gorter; Huebner) of various cities in Israel, Tokyo, Bangkok and the capital of Friesland. The exception was in Donostia-San Sebastián, where English ranked third after Basque and Spanish. The reasons given for the place of English in society in those studies were not primarily communicative or informational, but mostly related to status or social prestige.

Around the same time, Hult (2003) reached a similar conclusion about English in second position in Sweden (see Section 2.3 for a summary). In Germany, English also takes second place in the language hierarchy as was reported in one of the largest studies on linguistic landscapes ever (see Box 6.3 in Section 6.3 for a summary). In the four cities studied, English had an average presence of 19.6% of all signs, after German with 66.1%, and the outcome was similar for official and commercial signs; below we will point out an exception (Ziegler *et al.*, 2019). Somewhat similar percentages were found in a study in the German capital Berlin by Budarina (2017), who reported on two neighborhoods (Potsdamer Platz and Charlottenburg-Wilmersdorf), respectively, 21% and 16.5% monolingual English signs. On average, 35% of all signs had English in combination with German or other languages. Not surprisingly, Budarina concluded that English is an integral part of Berlin's linguistic landscape where it can be seen a great deal. In contrast, many other languages have only a limited visual representation and almost always in combination with German, even though those languages may be spoken by substantial numbers of inhabitants. Papen (2012) presents another interesting example from Berlin in discussing the importance of the role of English. One example she mentions is how a shop owner chose a name in English (*no socks, no panties*) to mark the shop as unique and different from others. Not all clients understand the meaning of the name in English and, as Papen (2012: 66) comments, 'the denotative content

of the name is not necessarily understood. But the language does not only have a communicative function, it also carries symbolic value'. For Papen, the English shop name reflects the process of gentrification that has changed the population of the Prenzlauer Berg neighborhood and its character. The social prestige of English plays a role in that process and thus becomes reflected in the linguistic landscape (Figure 9.11).

Androutsopoulos (2013) used the metaphor of 'English on top' as a framework for the analysis of the specific discourse functions of English in the context of German media and advertising, which is, of course, related to the linguistic landscape. He found that English was often used in addition to (or 'on top of') German as the main text. For this use, he distinguished three functions for English. First, in headings (headlines, titles, captions, slogans) accompanied by the main body of text in German. Second, bracketing, that is, opening and closing boundary markers in English that surround larger textual units in German. Third, the naming of media products and institutions where English names function as emblems separated from the surrounding text. English used in these ways does not challenge the predominance of German. Even though placement can be an important aspect for English on top as a framing device, it does not necessarily mean literally in the upper position. The ideas of Androutsopoulos could also be applied to analyze the second place of English in the linguistic landscape as an additional language.

Figure 9.11 'No socks, no panties' shop in Berlin

As is well known, the French government has taken legal steps to try to halt the use of English in public spaces. The so-called Toubon law, introduced in 1994, insisted on the use of the French language in official government publications, advertisements and other public contexts as part of the language policy in France. In Chapter 8, we mentioned the large-scale study by Blackwood and Tufi (2015) of Mediterranean cities in France and Italy. In the study, they extensively examined the role of English and an interesting dissimilarity appears from their analysis. Overall, in the French cities of Ajaccio, Marseille and Nice, the principality of Monaco and in Northern Catalonia, in quantitative terms, English was the second most common language, although it had a rather minor presence. The authors reported that English held a more prominent position in the Italian cities of Cagliari, Genoa, Naples, Palermo and Trieste, but there it was also clearly in second place after Italian. However, English has an average presence in French linguistic landscapes of 4.3% while in Italy the figure is 16.7%, so a difference of around 12% (Blackwood & Tufi, 2015: 187, 195). The authors concluded that the factor of cosmopolitanism, which is central to their analysis, does not contribute so much to the visibility of English in France. In contrast, in Italy the display of English is related to cosmopolitan lifestyles and transnational identities. One explanation attracts attention because, according to Blackwood and Tufi, especially among the elite in France there is a certain Anglophobia, a dislike of English. In Italy, on the contrary, there exists a sense of Anglophilia, a love for English. The Toubon law, which restricts the use of English, obviously also has an influence. The findings of Blackwood and Tufi were confirmed by Amos (2017) in a study in Toulouse, France. He suggested that English on signs is not aimed so much at tourists or visitors but has more cultural connotations and is thus directed at predominantly monolingual French speakers. In this context, it is not surprising that Bogatto and Hélot (2010) have a separate section on the place of English in their study of the linguistic landscape of the city of Strasbourg. The authors mentioned that in quantitative terms English was found to be the second most frequent language on shop front signs, after French. They further mentioned that the situation in Strasbourg was similar to the city of Basel, located nearby across the border in Switzerland. For Basel, Lüdi (2007) had indeed concluded that English was the second language after German in public displays. Second place after French was again found in a study by Lipovsky (2019a) in a Chinatown (Belleville) of Paris. On shop and business signs, English took second place, but notably before Chinese. In quantitative terms, English was present about half as much as French, but twice as much as Chinese, among 17 languages in total (see Section 7.5 on Chinatowns).

The same pattern was also found in three out of four neighborhoods studied in Rome (Gorter, 2009). There, Italian was clearly predominant, and English was positioned second, being used on about one-quarter of

all signs. In the report, it was reasoned that private initiative plays an important role in bringing English into the linguistic landscape and social prestige is a factor of importance. Below, we discuss the exception of the fourth neighborhood where English came in third place.

In other studies in Amsterdam, Brussels and Oslo, English came in second place after the state language (Dutch, French and Norwegian). However, the studies pointed to important local differences. Vandenbroucke (2016) compared the use of English in commercial linguistic landscapes in Amsterdam and Brussels, focusing on shopping streets which she distinguished according to three economic levels: upscale, midscale and downscale. In quantitative terms, she found English most often included on signs in the midscale streets, where all the international chains had their stores (Amsterdam 89% and Brussels 67%); less in the upscale streets, with more exclusive luxury brands (Amsterdam 59% and Brussels 51%); and least in the downscale streets, with mainly local shops (Amsterdam 38% and Brussels 33%). The pattern was similar in both cities, with a stronger presence of English in Amsterdam than in Brussels. She concluded that even though English is a marker of globalization, it does not represent a homogeneous process. Likewise, Stjernholm (2015) contrasted the language of shop names in the affluent neighborhood of *Majorstua* in Oslo with the more working-class areas of *Grunerlokka*. The first is dominated by chain stores with global signs, whereas the second has mainly independent, local shops. The quantitative results showed that in the wealthy area English and Norwegian were equally frequent (around 30%), whereas in the socioeconomically less affluent area English had a much smaller presence than Norwegian (19% versus 48%). She concluded that the majority of global signs in the upscale street gave a sense of being disembedded from the local context, whereas, in contrast, the signs in the working-class neighborhood were more embedded in their environment (Figure 9.12).

The outcomes for Amsterdam, Brussels and Oslo seem somewhat comparable, and it is noteworthy that in all three cases English is most commonly seen in the socioeconomic mid-range streets.

In all the foregoing cases, national languages dominate the linguistic landscapes in the cities investigated and the visibility of English remains somewhat limited, albeit with some interesting variations. Its presence is probably related to the degree of social prestige that English has in the different parts of these societies.

9.5.1.1 Post-Soviet countries of Eastern Europe and Central Asia

A different, but still comparable situation can be found in the post-Soviet countries of Eastern Europe and Central Asia, including the countries under the former sphere of influence of the Warsaw Pact. We discussed developments in terms of language policies in Chapter 8. As we

Figure 9.12 Bookshop near Majorstua in Oslo

mentioned in that chapter, English obtained social prestige in the various countries and became the new lingua franca, occupying the role earlier played by Russian. The replacement of Russian by English is characterized by Pavlenko (2009: 258) as she states that 'this change symbolized the transition from Soviet totalitarianism to western-style cosmopolitanism and global values'.

In a study in the three Baltic States, Marten *et al*. (2012) found in the six towns investigated, that English came in second place with an average of 15% on all signs. However, there were substantial differences between the towns, with English having the highest visibility in the Estonian tourist town of Pärnu, where it appeared on 61% of all signs (although Estonian was on 92%). Local informants perceived English as more neutral than Russian, although Russian still played an important role in their daily lives for international communication and contact with tourists. English was mainly used for the names of shops, restaurants, etc., and on signs for providing practical information to international visitors. The authors see the three Baltic States today as fully positioned in the expanding circle, unlike during the Soviet period, when English played only a minor role. Marten *et al*. (2012: 306) conclude that 'English plays an important role today, but it has not "taken over" all functions formerly fulfilled by Russian'. In the context of the Baltic countries, in Chapter 8 we mentioned Pošeiko's (2015) historical account of changes in the linguistic landscape of a town in Latvia. She observed that 'English as

an international language of globalization appears in public information of the city only since the 21st century' (Pošeiko, 2015: 335).

Muth (2008) made an inventory of the linguistic landscape of Vilnius in Lithuania. He found an average of 25% Lithuanian–English bilingual signs and 10% in English only, so 35% of the signs had English (*n* = 878). The details for the different neighborhoods show that percentages varied from 14% in one neighborhood to 46% English on signs in the old part. In Western-style shopping centers, English was the predominant language, appearing on 71% of signs with Lithuanian on 63% (*n* = 43). Muth noticed that English was mainly used for names or catchphrases such as 'sale' or 'discount' while Lithuanian was used for opening hours and explaining discounts. This differentiation between an emblematic function for English and more practical information in the local language has often been observed in linguistic landscape studies.

Overall, the display of English in public spaces in the Baltic States seems to be similar to, for instance, Germany and Italy, but not as pervasive as in the Netherlands. There are some exceptions, such as in a tourist town where English has a high prevalence, but other studies show a rather low presence or near absence at the universities Tallinn and Tartu in Estonia, Riga in Latvia and Vilnius in Lithuania (Saagpakk *et al.*, 2021; Soler, 2019; see Chapter 10).

In Eastern European countries more generally, English has obtained a larger presence in the post-Soviet era. In Pristina in Kosovo, Demaj and Vandenbroucke (2016) observed a difference between top-down trilingual Albanian–Serbian–English signs (71%), semi-official signs, which were either trilingual (46%) or bilingual (38%), and bottom-up bilingual Albanian–English signs (45%) (*n* = 248). English is replacing Russian as the lingua franca and the authors draw a parallel with the developments in post-Soviet countries described by Pavlenko (2009). From the Baltic States in the north to Romania and Bulgaria in the south, English has replaced Russian as the foreign language of choice in education, and English has increased its presence in popular culture and in the public sphere. While English is not uncommon in commercial signs, billboards and tourist information signs in state capitals and tourist destinations, English can also be seen in smaller towns. See, for example, studies in Slovakia (Ferenčík, 2012, 2018), Croatia (Canakis, 2016; Gradečak-Erdeljić *et al.*, 2014), Hungary (Galgoczi-Deutsch, 2011, 2012), Montenegro (Canakis, 2016) and Serbia (Canakis, 2018).

In some former Soviet states in Central Asia, similar patterns can be found (see Chapter 8). Moore (2014) considers that even though English is gaining a small presence in Astana, Kazakhstan, its function is largely symbolic. English does not have informational functions and is mainly used for brand names, logos and advertisements for foreign goods. In Chapter 8, we briefly mentioned the language policy in Uzbekistan. Hasanova (2022) compared the regional city of Bukhara to the capital

Tashkent. In Bukhara, she found that English was the most prominent language in the names of shops and services (45%), Russian came second (28%), with Uzbek third (26%; *n* = 53). In contrast, in Tashkent, Russian was used most frequently (49%) and English came second (26%), with Uzbek third (11%; *n* = 126). She explains the prevalence of Russian due to favorable attitudes among the population and its use for interethnic communication, while the strong presence of English in shopping centers and educational institutions is related to elitism, high quality products and modernism, including the benefits of knowing English.

In Russia, in the republic of Tatarstan, comparable processes are taking place. Sharafutdinov (2018) examined the role of English in the linguistic landscape of the city of Kazan, where Tatar and Russia are both official languages. His results show the domination of Russian, with Tatar only appearing on bilingual signs with Russian, or on trilingual signs with English. On official signs, English had a limited presence, but on commercial signs it was substantial. English was visible on 15% of monolingual signs and 30% of bi/multilingual signs (*n* = 419). On such signs, English was used more for names of establishments, and Tatar provided practical information, such as opening hours.

9.5.1.2 China and Indonesia

In a rather different context, in China, diverging outcomes were found for the role of English in linguistic landscapes. China is in some ways a special case regarding its policies and attitudes toward English. It probably has the largest English learning population of any country in the world, which has been referred to as the ‘craze for English’ (Yajun, 2003: 3). In a study of the linguistic landscape, Wang (2013) mentions the propagation of English as one of the main language policies of China, next to the standardization of Chinese and the development of minority languages.

In Beijing, Wang (2013) surveyed shop signs in Wangfujing Street, a famous shopping street (*n* = 89). The results show that English was used extensively as it appeared in 52% of the signs. A majority of the shops (72%) used simplified Chinese, and only a few had traditional Chinese characters. Only a few other foreign languages were observed, such as Japanese. Wang discusses the results against the wider background of globalization and language policies in China. In another study in Beijing, Xiao and Lee (2022) examined the presence of English in the Palace Museum (Forbidden City), a famous tourist destination. In their sample (*n* = 3,285), they found that Chinese–English bilingual signs constituted 73% of all signs, 26% were monolingual Chinese and less than 0.5% were monolingual English or had a combination of Chinese, English and another language. Given these numbers, the outcome of a survey among international tourists to the museum (*n* = 78) was not surprising:

83% perceived Chinese to be dominant, while English was rated at 15% (and other languages at only 2%). The estimates among workers of the museum were similar but slightly lower for Chinese and slightly higher for English. The two studies show that in places frequented by international visitors, a central shopping street and famous museum, English prevails as the second language after Chinese. This outcome is confirmed in other studies in other places in China (Figure 9.13).

For example, Han and Wu (2020) examined the linguistic landscape of the city of Guangzhou, in the south of China. They collected a sample of 734 signs (1 for each shop). About half were monolingual and the other half bilingual; only a handful were multilingual signs. Overall, Chinese was dominant, but English clearly came in second place with a presence on 47% of all signs, of which 10% were in English only. Chinese was the most salient language displayed on bilingual signs, with the largest font size on 62% of signs, while English was the most salient on 28%. For Han and Wu, the disregard for the language laws shown by English-only signage and signs where English is most salient is important (see Chapter 8). The authors further mention that this outcome is in agreement with the prominent role of English in the linguistic landscape of other Chinese cities. In the tourist destination of Hongcun village, Lu *et al.* (2020) found a much lower percentage for English in a sample of 1,978 signs. English came in second place, with a presence on 19% of all signs, mainly on bilingual or multilingual signs; the latter include Japanese and Korean (7%) for tourists. Standardized Chinese was clearly dominant, appearing on 90% of all signs, while traditional Chinese featured on 16%. Perhaps the lower frequency of English in comparison with Beijing or Guangzhou

Figure 9.13 Food hall sign in Shanghai

is because visitors are predominantly domestic Chinese tourists. On the other hand, the outcome is similar to the percentage for English that Wang and Huang (2020) found in a remote community in the northwest of Yunnan Province. They focused on the status and functions of English among the local Derung people in Dulongjiang Township. In three streets in Kongdang, they found English on 23% of signs, all bilingual, but Chinese was clearly dominant (74% were Chinese-only signs; *n* = 608). Just a few signs had the Derung script or Burmese, always in combination with Chinese. The authors reflected on English as the worldwide language of power and concluded that English is only used for symbolic reasons.

Indonesia is another large Asian country (in 2020 it had an estimated population of over 270 million) where there has been a massive upsurge of linguistic landscape studies. Several of those can be characterized as rather plain and we have selected only a few. Researchers have demonstrated in various cities and for diverse research sites that English is competing with Indonesian (Bahasa Indonesia), the official language and standardized version of Malay. In some sites, English clearly dominates, e.g. in the famous tourist site of Bali (Mulyawan, 2021), but in other sites, Indonesian is the first language.

In Jakarta, the capital, Da Silva (2014) studied the use of English and Indonesian on billboards (*n* = 114). She found that English is prevalent, because 50% contained English and Indonesian, 33% were in English only and 17% were in Indonesian only. Excluding proper names, of all words used (*n* = 1,402) 59% were in English and 41% were in Indonesian. She observed that Indonesian was more used for products for people of lower or middle classes and English more for luxury products, concluding that both languages have their own readership. In a study of hospitals and health clinics in Malang, a city of over 800,000 inhabitants in central Java, Sumarlam *et al.* (2020a) found that Indonesian dominates in the names, followed at a distance by English and a few institutions have added other languages to the name (*n* = 211). The authors concluded, 'language plays an important role in forming a positive image' (Sumarlam *et al.*, 2020a: 2624). In another study in the same city (Sumarlam *et al.*, 2020b), a similar pattern was found for the use of languages on signs of halal food stalls and restaurants (*n* = 503). Monolingualism in Indonesian predominates (52%), followed by English (31%) and Javanese (8%); other languages such as Chinese, Japanese, Arabic and Dutch were found here and there. Only a small number of signs were bilingual (6%). In the city of Medan, Zahra *et al.* (2021) investigated 89 signboards of coffee shops. They found Indonesian and English to dominate the signage. English was the most frequently used language, followed by Indonesian, although Indonesian most often appeared as the first language. Another 10 languages had just a minor presence.

Yusra *et al.* (2022) studied shop names in Lombok Island, a tourist destination. Their data (n = 2,053) showed a predominance of English (57%) over Indonesian (42%), and a small number of names in Sasak, the local language, or in other languages (1%). English was strongest in tourism areas. Additionally, in urban areas, a majority of names were in English, but in suburban areas, Indonesian had a stronger position. A questionnaire demonstrated that over half of shop owners, staff and customers preferred English as the language of the names. In terms of the type of shop, it turned out that technology, automotive and fashion shops had more English, whereas health, finance, food and beverages, and household needs had more Indonesian. They also looked into linguistic English-like structures of names, that is, words from Indonesian or Sasak that are used in English-like noun phrases.

Mulyawan (2021) investigated the effect of a local policy measure to support the Balinese language from 2018. Compared to his earlier studies of the tourist city of Kuta on Bali, he found in 2020 that the complete domination of English had diminished and the presence of Balinese had increased. English was still dominant (49% monolingual and 21% bilingual signs of n = 1,462), followed by Indonesian (15% monolingual and 21% bilingual signs) and Balinese (2% monolingual and 10% bilingual signs). For Balinese, these figures represent a substantial increase from 43 signs in 2017 to 170 in 2020, most using Balinese script. Of those, 60 signs were bilingual Balinese–English, a combination that was not found in the earlier study. Mulyawan (2021) concluded that the language regulation has been effective in supporting Balinese.

Taken together, the studies in China and Indonesia show that English has a presence on around half of the signs in larger cities and in China around 20% in smaller locations. English is used for similar reasons of social prestige as in other countries in the expanding circle. It is evident that English impacts linguistic landscapes in variable and complex ways related to socioeconomic factors and to differences in the targeted groups among which tourists play an important role.

9.5.2 Contexts where English comes in third place, first place or is absent

As we have noted time and again in the preceding paragraphs, English ranks in second position in the hierarchy of languages, below the official state language, but above all other languages. However, there are also cases where English may be competing for second place. It does not yet have that position and is not threatening the dominant local language, but there may be a process underway in which English is replacing another language in the role of lingua franca, as we already saw in the case of some of the post-Soviet countries in which Russian was pushed out.

For instance, in his classic study of Bangkok, Huebner (2006) noticed a process whereby English was replacing Chinese as the local lingua franca in the linguistic landscape. Even though Thai remained the most important language, English seemed to be moving up to second place at the cost of Chinese. Huebner's observations were confirmed in a recent study by Savski (2021) who indeed found that Thai was the dominant language, but at the same time there was a strong presence of English in business names and at the university. Savski concluded that English was rapidly becoming the second language of Thai cities.

Similar observations were made by Ben Said (2019) about languages in Tunisia. He found that English is positioning itself between the two established languages: Arabic, the official state language and French, the former colonial language. His observations were based on a sample of signs of Tunis, the capital, and La Marsa, a suburb. In quantitative terms, he reported that Arabic had a presence of 42%, French 37% and English 15% (n = 693). The rivalry between English and French in the language hierarchy was clear, further reinforced by the mixing of languages or hybrid forms resulting in what he calls 'chameleonic' (see below).

There are also some specific contexts where English comes out in 'first place' in the language hierarchy. For example, it occupies top position in some places which are heavily visited by tourists. Bruyèl-Olmedo and Juan-Garau (2009, 2015) studied the linguistic landscape of the tourist island of Mallorca, Spain, and showed that English was the most frequently displayed language. Just four languages were used on signs, despite the fact that they found 21 mother tongues among 400 respondents. English was used on 72% of the signs (n = 736), either on its own or in combination with one or more languages. Spanish was second (49%) followed by German (28%) and Catalan (15%). This implies that the quantity of English was higher than the two official local languages Catalan and Spanish taken together. The authors try to explain the outcomes by pointing out the different roles the languages have for tourists and for locals. The dominance of English was even stronger in the tourist city of Petra in Jordan. Alomoush and Al-Naimat (2018) found in two major streets that 72% of all signs collected (n = 210) were monolingual, and almost all (98%) of those were in English and, notably, there was a low number of signs in Arabic, the official language. Not surprisingly, all the tourists and locals who were interviewed agreed that English was the most displayed language. The authors concluded that English dominates because of its role as the global language of tourism, commerce and modernity, which 'seems to be positively valued and appreciated by foreign tourists and local residents' (Alomoush & Al-Naimat, 2018: 11).

Laitinen (2015) explicitly locates Finland in the expanding circle in his analysis of a few examples of English signage in a tourist town in the north. In Finland, as in many other countries, the uses and functions of the public display of English are changing under the influence of

globalization and mobility. Laitinen quotes other Finnish research showing that on average 79% of the population reported encountering English on signs in the streets, although in rural areas the percentages were significantly lower. Laitinen emphasizes that in order to comprehend the spread of English, researchers have to go beyond the obvious functions of international orientation and modernity, and look into the specific local-historical context where the signs are located or produced. Comparing his data with Laitinen in Finland, Syrjälä (2022) found an unexpected limited visibility of English in the rural landscapes of two villages in the islands of the Stockholm archipelago.

In contrast, in other contexts, English takes 'third place' in the hierarchy. In our own classic study (Cenoz & Gorter, 2006), we found in Donostia-San Sebastián that English came in third place after Basque and Spanish, with a presence on its own or in combination with other languages of 28% in all signs. English has a similar position in terms of frequency and visibility in other regions of Spain where a regional minority language is in use, as we have seen in studies in Catalonia (Comajoan Colomé & Long, 2012) and Galicia (Dunlevy, 2012, 2020; see Chapter 7).

In another classic study, Ben-Rafael *et al.* (2006) also found that English came in third place in mixed Israeli–Palestinian localities, which was one of the three locations they compared. In contrast, in Jewish localities, English was the second most prominent language after Hebrew and similar to East Jerusalem where Arabic predominated.

In the study in Rome, which we have already mentioned, an exception was found in Esquilino, the fourth neighborhood in the sample (Gorter, 2009). This neighborhood has a high proportion of migrant inhabitants who run various businesses. Again, Italian was by far the most prominent language, but there were also many signs with Chinese as well as languages such as Bengali and other languages from Bangladesh, India and Pakistan. In this environment, English was mostly used in combination with Italian and came in third place. Unsurprisingly in the same neighborhood, Barni (2006) found similar results for English as the third most frequently visible language. It is, however, interesting to note that it was not the ample use of English, but of Chinese that became socially disputed. In a new official regulation, Chinese–Italian bilingual signage was prescribed (Barni & Bagna, 2010). The ruling did not affect English, and it has probably increased the relative position of English versus Chinese.

As we mentioned in Section 7.5 on Chinatowns, Wang and Van de Velde (2015) found that Chinese was the most predominant language in a comparison of six Chinatowns in the Netherlands. The authors specifically zoom in on the use of English and their results show that English was used on just under half of all signs, equal to Dutch, the official language (or French in Brussels). The percentages for English were even higher when focusing on the names of shops. For bilingual and trilingual signs there was

also a preference to include (at least) English. This is rather different from findings in shopping streets outside Chinatowns, as reported for Amsterdam by Edelman (2014) and for Brussels by Vandenbroucke (2016), where English was clearly in second place after the official language.

There was also an exception in one neighborhood in the large-scale study in Germany by Ziegler *et al.* (2019), which we mentioned above. In this case in Duisburg, Turkish was the second most frequently observed language after German.

The fact that these cases where English comes in third place are exceptions not only makes clear that across specific local contexts there can be substantial differences in the presence of English, but also that one can generalize that English is the language observed most frequently after the official language in almost all countries in the expanding circle.

Another exceptional pattern is the (near) 'absence' of English. In three German-speaking communities in South Tyrol, Dal Negro (2009) pointed to the total absence of English on signs, making those Alpine villages different from urban contexts in the region. In the study of Reershemius (2020) of 19 villages in the Low German-speaking areas in the north of Germany, she also found a very small presence of English (2.6%, $n = 1{,}294$), which included one word signs with 'welcome' or 'no'. Still, it is rare to find a context in today's world where there is no English at all.

BOX 9.1 LINGUISTIC FEATURES OF ENGLISH ON DISPLAY

The omnipresence of English also raises questions about linguistic aspects. By referring to 'English', we are aware that this does not refer to one unified, standard version of English, but varieties of Englishes under the umbrella label of a named language. English is often used alongside other languages, in combination with visuals and icons, creating multilingual and multimodal signs, which can display soft boundaries between languages and between modes.

Most signs we see in public spaces contain a single word of English, a few words, a phrase or at most a full utterance. English in public spaces may be prominent, but linguistically its use is, for the most part, limited to names, catchphrases of a few words, slogans or a few longer chunks. Through corpus analysis, Ziegler *et al.* (2020) confirmed that monolingual English signs (7% of all) only contained proper names, abbreviations, German Anglicisms and short English texts.

The linguistic varieties of English were the focus of a study by Bruyèl-Olmedo and Juan Garau (2020). They analyzed a corpus of English texts on signs in Mallorca. They empirically confirmed that most texts are short (less than 20 tokens). Further, they highlighted some lexical features of American and British varieties of English and some literal

translations, such as 'seafruits' (from Italian 'frutti di mare'), or spelling adaptations resulting in non-existent words.

We already saw in the classic study by Huebner (2006) in Bangkok that he discussed linguistic dimensions, such as the mixing of lexicon, syntax and script. Troyer (2012) expanded on Huebner's (2006) study by including Thai online newspapers. His results revealed 'that English continues to influence Thai orthography, lexical borrowing, and code-mixing' (Troyer, 2012: 110). In a completely different context, the Democratic Republic of Congo, Kasanga (2010) investigated code-mixing on signs between French, the local lingua franca, and English. Kasanga explicitly located the country in the expanding circle because of the status of English as a foreign language. He distinguished four functions of English in French advertising:(1) brand, i.e. English names of brands to preserve a global corporate image; (2) hybrid, i.e. adding French tags to English names; (3) clone, i.e. copying well-known brand names; and (4) imitation, i.e. using English labels in French rather than English brand names (Kasanga, 2010: 191–197). Another example was presented by James (2016), who examined the mixing of English with local languages from a linguistic point of view. He presented cases of tourist advertisements to demonstrate that visual English has a graphic impact. A clear example is a tourist slogan for Slovenia that emphasizes the embedded letters 'LOVE' in the name of the country. James concluded that English in contact with local languages creates local meanings and identities. The semiotic effects of English, together with local languages, are multimodal and multilingual. The linguistic aspects of signs were also part of the study by Lipovsky (2019a) in the Belleville Chinatown in Paris. She observed that some business names borrowed from English syntax and displayed French and English mixing. This was not a matter of just placing English and French next to each other, but of going creatively beyond the boundaries of the two codes.

English is frequently combined with local or other languages for mixing, blending, wordplay or other ways of linking languages. By creating hybrid forms, even the boundaries between seemingly distant languages such as Chinese and English can dissolve or become vague. Li (2015) discussed examples of the creative blending of Chinese and English, the transgressive use of romanization, bilingual puns and the complex compounding of Chinese and English elements, based on a sample of signs from the city of Suzhou in China.

Continuing along similar lines, Li and Hua (2019) described how a new translingual script is emerging in China, which they call *tranßcripting*, based on a translanguaging perspective. It refers to the creation of a script that combines elements from Chinese and English writing

systems or mixes them with symbols and emojis. It disrupts the norms of the traditional writing system and goes against an ideology of the superiority of the Chinese script.

We mentioned Ben Said's (2019) study in Tunisia, where English is positioned between Arabic and French, which leads to hybridization and mixing on signs. On some signs, English combines with Arabic to create a double meaning and to have a dual lexical form. Ben Said calls this a 'chameleonic' characteristic of English, because it is like a chameleon that blends in with its environment, and goes unnoticed through camouflaged use.

From the foregoing pages it has become clear that many linguistic landscape researchers are concerned with the pervasive display of English in cities around the world. English is usually in a competitive relationship with the dominant local language and other languages. When English is used on signs it is not so probable that English replaces another language completely, but it is more likely that some of the words, names or concepts will be borrowed by other languages and become part of the vocabulary (with or without adaptation of pronunciation or spelling). English as a contact language and its influence on the linguistic characteristics of other languages is an important research question.

9.6 Concluding Remarks

The use of English in public spaces has led to interesting findings through numerous studies of linguistic landscapes, as we have seen. Studies have shown different patterns for the display of English in public spaces, with significant variation over diverse contexts. The commonality across the studies mentioned above is that English has obtained a presence in most linguistic landscapes around the world either as the first language in inner and outer circle countries or as an important additional language in the expanding circle. Numerous other investigations in different cities and countries around the world, which we have not mentioned, confirm the results of the pervasiveness of English as presented here. The theme of the public display of English is probably one of the most frequently investigated in the linguistic landscape field. In other chapters of this book, we also come across studies that include the theme of English, among others the chapters on minority languages, language policy and multilingualism. Over and over again, researchers claim in their publications that the presence of English in linguistic landscapes is increasing, even though the vast majority of studies are synchronic taking place at one moment in time.

We have seen that English is taken for granted in inner circle countries and that other languages are usually largely ignored or 'unseen'.

Generally speaking, in those countries the linguistic landscapes seem predominantly monolingual, except for international brand names and for some limited geographic areas, specific regions or ethnic neighborhoods where concentrations of other languages such as Spanish and Chinese can be found. On the whole, this seems to reinforce the idea that those countries are monolingual, while they patently are not when we consider the composition of their populations. In terms of its place in the language hierarchy, English takes an undisputed first place.

In nearly all cases in outer circle countries English is the most frequently observed language and it dominates the public sphere. This often comes at the cost of the official, state or national language(s), with which English may be competing for visibility. In most cases, the outcome is a linguistic landscape that is multilingual or at least bilingual. The reasons for using English can be related to colonial history, reinforced by social prestige in times of globalization.

Even though the boundaries between the circles of the Kachru model are overlapping or at least not clear-cut, the expanding circle concerns all other countries. The display of English in public spaces in those countries presents a more varied pattern. Many countries share the fact that English is the second most frequently visible language after the official state language. In some cases, English competes with another language which may be a former lingua franca or a minority language. English has not achieved a dominant place as the hypercentral language at the top of the language hierarchy in the countries in the expanding circle. English usually has high visibility through its emblematic use as a symbol for social prestige or similar reasons.

The widespread use of English on signage can also lead to further social inequality, such as in cases when groups are not able to access what is written on signs and can feel excluded. Studies have demonstrated that the use of English does not mean that its audience comprehends English texts (Gerritsen *et al.*, 2010).

The question arises as to whether English is unstoppable, as De Swaan (2001) has suggested, or whether it can live side by side with other languages. Some may fear that English will replace other languages and authorities may increasingly want to regulate its use, as we have seen in some countries (most notoriously in France with the Toubon law). It is impossible to predict what will happen in the future, among other reasons, due to technological developments and innovations. Today, it is possible to walk through an urban environment and have all the signs automatically translated into a preferred language just by using the right app and pointing the camera of a mobile phone (see Chapter 12).

The strong pull of English is encouraging millions of people to learn the language. Globalization provides a push toward English and seems to offer economic incentives. Linguistic landscapes include English as one of the languages everywhere in the world. This happens not just in the

main shopping streets of capital cities, but also in small provincial towns and rural areas, although often to a lesser degree. English is commonly used along with at least one other language in bilingual signs and somewhat less frequently in multilingual signs. This contact of English with other languages leads to interesting and remarkable mixtures, blends and hybrids. Writing from the perspective of World Englishes, Bolton (2012: 33) saw spaces 'where the use of English is juxtaposed with other international, national, regional, and local languages' as one of the most exciting areas of research. Without doubt, the theme of English continues to attract a great deal of attention from linguistic landscape researchers and the display of English and its contact and competition with other languages will remain an important theme for the field.

10 Educational Contexts

10.1 Introduction

'The linguistic landscape encouraged us to critically reflect on language and society', this was a comment of one of our students. She was part of a group of master's students who evaluated the assignment in which they had to collect, analyze and reflect on the signs they observed in their local urban environment (see Section 10.2.4 for a description). The theme of education and language learning has received increasing attention in linguistic landscape studies (Carr, 2019; Gorter, 2018). Over the past few years, this area has turned out to be enormously productive with the publication of several edited books and numerous articles (Krompák *et al.*, 2022; Malinowski *et al.*, 2020; Niedt & Seals, 2021; Solmaz & Przymus, 2021). Both the edited collection by Ziegler and Marten (2021) in German and the introduction by Bellinzona (2021) in Italian devote large parts to schoolscapes. Similarly, Berra's (2020) guide in Latvian and the special issue in Portuguese edited by Melo-Pfeifer and Lima-Hernandes (2020) show how the linguistic landscape is useful for learning and language teaching. Taken together, these publications and many others show the huge pedagogical potential of signage in public spaces for language acquisition and learning about languages.

A direct application for education purposes is to write a master's thesis or a PhD on the topic. This was already demonstrated during the earliest days of the field, when Tulp (1978) published parts of her master's thesis on linguistic landscapes in Brussels as a book chapter and, later, when Backhaus (2007) turned his PhD thesis on multilingualism in Tokyo into the first monograph on linguistic landscapes (see Chapter 2). Since then, hundreds of theses have been written on the topic, which shows its popularity and that the linguistic landscape is a suitable topic for an academic thesis. We can further observe that university courses in, for instance, applied linguistics and sociolinguistics, increasingly include linguistic landscapes as part of the curriculum. In an overview of the field, Bagna *et al.* (2021) claimed that the relationship between linguistic landscapes and education will continue to receive attention in research.

In this chapter, we distinguish between, on the one hand, studies focusing on the use of signage as a pedagogical tool for teaching and learning, and on the other hand, the schoolscape in terms of the display of signs mostly on the walls of classrooms and education institutions more generally. Of course, this is a somewhat simplified and not an absolute distinction between two approaches, as both can be combined and the emphasis can be more or less on one or the other. We use the distinction to structure our presentation of a selection of studies related to educational systems. First, in Section 10.2, we look at linguistic landscapes from the perspective of a pedagogical tool. The section is divided into four subsections: Section 10.2.1 as a source of authentic input for language learning; Section 10.2.2 as a tool for learning English; Section 10.2.3 the same for Chinese, Spanish, Italian, German and French; and Section 10.2.4 as a broad resource for language learning.

The second half of the chapter, starting in Section 10.3, deals with schoolscapes as an object of study. It is divided into four subsections: Section 10.3.1 looks into the development of the concept; Section 10.3.2 focuses on schoolscapes in the sense of the writing on the walls of education institutions; Section 10.3.3 summarizes our own study of the functions of signs in schools and its follow up; and Section 10.3.4 looks into linguistic landscapes as represented in textbooks and learning materials. Finally, Section 10.4 has some concluding remarks on educational applications.

10.2 Linguistic Landscapes as a Pedagogical Tool

Shohamy and Waksman (2009: 326) argued that linguistic landscapes can provide opportunities to act 'as a powerful tool for… meaningful language learning'. They offered a perspective on educational contexts where an investigation into linguistic landscapes leads to a deeper understanding of issues of inequality and power. Using several examples, we show how texts and images in public spaces provide opportunities for language learning, for instruction in general and for raising awareness about issues related to languages and society. In other words, how the display of languages can be used as a pedagogical tool. We discuss some studies that have demonstrated how linguistic landscapes hold considerable potential for a range of possibilities for language learning, literacy practices, multimodality, identities, ideologies and functions of signs and, in particular, for increased language awareness and for critical reflection on questions about social and political issues.

In a programmatic article, Malinowski (2015) provides some guidelines on the use of linguistic landscapes for language learning in the widest possible sense. He designed a number of learning activities (1) relating to signage, (2) interacting with signage and (3) knowing the world from

signage. The three activities can be placed within a triadic model, derived from the ideas of the French philosopher and sociologist Lefebvre (1991) (see Chapter 3). First, students document signs through their photographs ('I observe'), then they reflect on their own conceptions about what the linguistic landscape is like ('I think') and finally they move on to the experiences of local actors who live in the linguistic landscape by questioning them ('what they think'). The suggestions of Malinowski for teaching and research in this area can encourage educators to create different linguistic landscape activities for language learners. Those activities can involve (1) observing or documenting a linguistic landscape by visiting and photographing signs (perceived space); (2) interpreting or producing texts by comparing multiple perspectives and different forms of media of how the area is presented (conceived space); and (3) exploring the reactions of local residents or others to signage, including their own responses (lived space). Approaching the linguistic landscape from these three perspectives can enhance student learning. Below, we will see some applications of this triadic approach.

10.2.1 A source of authentic input

Some years ago, we started from the general assumption that languages displayed in public space can be useful for language learners (Cenoz & Gorter, 2008). We considered the potential of languages on signs in the public space as an additional source of input in second language acquisition (SLA) for acquiring pragmatic competence and to enhance language awareness. Our study showed that the linguistic landscape is a site that can function as an additional source of language input for learners. In the article, we focused on the relationship between the linguistic landscape and SLA and we identified examples of multilingual signs as authentic, contextualized input. We suggested that such signs can have a role in fostering pragmatic competence, multimodal literacy skills and multilingual competence (Cenoz & Gorter, 2008). Below, we summarize our ideas, update them and add some recent studies.

Our starting point is the mutual relationship between, on the one hand, research work on SLA that has relevance for linguistic landscape studies and, on the other hand, the possible role of the linguistic landscape in SLA studies.

The public space has not received much attention in SLA research because research tends to focus on speakers and not on their environments, even though some recent studies give greater emphasis to the importance of the environment (Dubreil & Thorne, 2017). We argue how some of the signs that passersby find in the street can be useful as authentic input for them as learners of additional languages. An example could be an official sign that has a long and detailed bilingual text of all the names of different types of fish, the minimum size and the prohibited

species in both Spanish and Basque. The basic function of the sign is to provide information to fishermen, but for a learner of Basque, the text could also provide a learning opportunity. An advanced learner could check their knowledge of the names of different fish and a beginner has a rather complete list of names in both languages. The sign is an example of authentic input from the linguistic landscape. This point of view is in agreement with various theoretical approaches in SLA research, where input plays an important role (Mackey, 2013).

Texts in the linguistic landscape are thus a possible source of input, which can lead to incidental learning. Obviously, language learners do not normally walk down the street with the idea of learning a new language from the texts on display. This does not mean that learners are unaware of the linguistic landscape around them, but there are probably important individual differences regarding the amount of attention people pay to texts in public spaces or how much they notice them. The huge investments in the advertising industry indicate that texts and visuals in the public space are being noticed and do have an influence on passersby. Some evidence has been obtained in eye tracking studies (see Chapter 12).

It is well known that a text can be read in more than one way and viewers can perceive the content of images differently. For instance, a bilingual sign can imply linguistic justice for one person, but a second person may interpret the same sign as representing one language dominating another. Some people can understand an advertisement as full of humor, but others experience it as insulting. Just as words have contrasting meanings for people, signs can be interpreted differently. Therefore, it is important that linguistic landscape researchers consider the way viewers construct their interpretations. Mitschke (2019) reflected on how passersby perceive the linguistic landscape and she approaches the question using methods from perceptual psychology. She suggests that the word 'perception' is not precise enough and should be replaced by 'attention' or 'consciousness', relating it to the awareness of signs. She illustrated these ideas with the results of a small study in which she interviewed passersby on a square in the bilingual French–Italian city of Aoste in Italy. The six respondents looked at a photograph of a sign to find out how much attention people pay to different elements and to languages. She found some interesting differences between monolinguals and multilinguals and the influence of attitudes and language use. Further investigations along these lines of a cognitive approach seem desirable.

Of course, signs are not especially designed for teaching languages but for other purposes. The linguistic landscape includes utterances which can sometimes be a full sentence but in most cases they are just single words or a small group of words. Proof of this was found in some studies. Gilles and Ziegler (2021) used the data from the *Metrolpolzeigen* project (for the method see Section 4.2.2 and for the outcomes see Box 6.3 in Chapter 6), and they automatically extracted texts from the

signs in order to perform a corpus linguistic analysis. They first distinguished between 'name' and 'text' and found that 46% of all signs contained proper names (Gilles & Ziegler, 2021: 3). For the 'text' part, they present some frequency tables for nouns and verbs (in German) with counts of the averages per sign of the number of words (between 6 and 7) and characters (close to 50). In Chapter 9, we mention Bruyèl-Olmedo and Juan-Garau (2020) who carried out a similar analysis of signage in Mallorca, although based on manual data entry. They also found that most texts were short, but with large differences between areas. One area had an average of 51.7 tokens per sign and the other had 11.4. However, a closer inspection of those data showed that the difference seems to be caused mainly by a handful of signs with long texts (Bruyèl-Olmedo & Juan-Garau, 2020: 162, table 1). Both studies thus confirm the limited number of words on signs on average.

Incidental or informal learning is related to issues of noticing and attention, frequency of occurrence, relevance of the stimulus and the presence or absence of a cue (Hulstijn, 2003; Marsick & Watkins, 2009). For example, it is difficult to control the quantity and quality of input that learners are exposed to in a second language through public signage in a study abroad context. As it is difficult to control, the linguistic landscape is not usually taken into consideration as part of study abroad experiences. An exception was a study by Chen (2014), who reflected on the linguistic landscape of bilingual Chinese–English advertisements in Melbourne's Chinatown, during her stay abroad as an exchange student. More recently, Lomicka and Ducate (2019) included some linguistic landscape tasks for American students on a study abroad trip to Paris and Berlin, and Maxim (2020) studied American students in Vienna (see Section 10.2.2). Similarly, de Saint Léger and Mullan (2021) reported on a study abroad program of Australian students in New Caledonia, although the outcomes of that study were somewhat mixed (see Section 10.2.3).

It would be difficult to know which elements of the linguistic landscape draw the learner's attention and how aware the learner is of paying attention to them. We attempted to find out the importance of the linguistic landscape for learners by asking them questions about their opinion of its role in language acquisition (Gorter & Cenoz, 2004). These were second language learners in the Netherlands and Spain who were asked whether they thought they had learned some language from the linguistic landscape and if reading signs on streets had been useful. They answered affirmatively and with our findings we were able to show that signs had some relevance for language learning. However, the effect was less when these students compared it to the effects of language classes, reading books or magazines, listening to music or watching television.

The linguistic landscape can be particularly interesting for the development of pragmatic competence. Language learners need to acquire pragmatic competence along with linguistic, sociolinguistic, discourse

and strategic competence to become communicative competent language users. Texts written in the public space tend to include different speech acts and often use indirect language and metaphors which are considered necessary in SLA. Signage can be appropriate input for acquiring and increasing pragmatic competence. In Chapter 3, we discussed pragmatics as a theoretical perspective, which has been applied, among others, by Kallen (2009) and in our own work (Cenoz & Gorter, 2008). We mentioned the example of a vending machine with the text 'Are you thirsty?' as a mild hint. The vending machine used to be located at the beach in Donostia-San Sebastián (Figure 10.1).

On the front there are some instructions in small letters in Spanish (illegible in the photo) and a clear bilingual text in Basque and Spanish that says 'Egarri al zara? ¿Tienes sed?', which can be translated as 'Are you thirsty?'. From a pragmatic perspective, we see that the speech act performed is a request, aimed at the people who pass by. The request is understood as a mild hint to buy a drink because of the context in which it is placed. The knowledge of Coca-Cola as a brand name for drinks, and the knowledge of what a vending machine is, makes the utterances

Figure 10.1 Front of Coca-Cola machine

almost unnecessary for practical purposes. A learner of Basque or Spanish is faced with an indirect strategy for a request in an authentic communicative context. Thus, this piece of authentic input can raise learners' awareness about different speech acts.

The linguistic landscape can further be linked to the development of literacy skills in a second or additional language because of the abundance of written texts. Reading is a social act resulting from the combination of the meaning potential of the text, its context and the resources available to the reader.

A basic characteristic of literacy studies is a focus on literacy as a social practice and multimodality. Thus, multimodal literacy pays attention to text as a material object, its attributes, the images it has next to it and the space it occupies. Literacy cannot be considered a static skill but should be considered as multiple literacy practices that vary across cultures and contexts (Kress & Street, 2006). The linguistic landscape is multimodal because it combines visual and printed texts. The information in the linguistic landscape is displayed on different types of material objects. The attributes of the materials in combination with the text and images and the space where they are located, provide different affordances that interact with the reader's resources.

For example, when looking again at Figure 10.1 of the Coca-Cola machine, the reader can recognize a vending machine because of its shape or the material it is made of, and because of the Coca-Cola logo and the bottle, both of which have some specific features such as the typical shape or the red color. The process of reading will include this recognition along with the printed text in Basque and Spanish. The texts cannot be isolated from the colors, the logo and the vending machine as a whole because all these elements are part of a multimodal reality. Obviously, there are other ways to develop literacy skills or critical awareness but the linguistic landscape provides an additional opportunity to experience multimodal texts in public spaces.

All in all, our study describes possible areas where public signs are beneficial for second language learners. Different types of signs displaying multilingualism can increase students' awareness about languages. Our 2008 article was well received and, for example, Rowland (2013: 496–497) echoes these ideas by extracting the following list of six benefits for learners of English as a foreign language:

(1) raising students' awareness of contextualized English;
(2) helping students' incidental learning;
(3) serving as an important resource for English teaching;
(4) improving students' English literacy;
(5) fostering students' critical thinking abilities;
(6) providing an authentic English environment for English learners.

He has applied these ideas in a project for an English writing class. Barrs (2016) also builds on our work and that of Rowland, to show the benefits in a project in a World Englishes class, and in Barrs (2020) he refers again to the same benefits. More details of these two projects are discussed in the next section on learning English.

10.2.2 A tool for learning English

The linguistic landscape can be an intentional method for the teaching of a language, besides being a resource for informal or incidental language learning. This more specialized application as a pedagogical tool has most frequently taken place in classes of English as a foreign language (Solmaz & Przymus, 2021). In this section, we discuss a few examples of projects for English learners. In the next section, we show how the method has also been applied to the teaching of some other languages.

For English language teaching, an early example is the frequently quoted publication by Sayer (2010). He used the linguistic landscape as a pedagogical resource in an English as a foreign language class in Oaxaca, Mexico. He engaged his university students as language investigators, who learned to connect the language used in the streets to the language of the classroom. Sayer reports how the students looked into the social functions of English on signs such as the purpose, the intended audience and the different meanings in a predominantly Spanish language environment. He argues that a linguistic landscape project allows students to think creatively and critically about languages and, at the same time, it is a pedagogical tool for teaching English. In a more recent publication, Sayer (2020) builds on his earlier work and provides a range of possibilities for ethnographic language learning projects, among others, on the social meanings of English, graffiti, T-shirts, environmental print in the household and a virtual walk in Google Street View.

We mentioned the project developed by Rowland (2013) in an English writing class at a Japanese university. He used ideas from Sayer (2010) and our work on SLA (Cenoz & Gorter, 2008). Rowland asked a group of 27 students to answer the question 'How and why is English used on signs in Japan?'. He then instructed them to photograph public signs and afterwards to discuss those signs in the English class. Through this project, Rowland was able to empirically corroborate some of the six learning benefits mentioned above, although he also suggests that explicit instruction about certain aspects of the linguistic landscape, such as multimodality, could further enhance those benefits. His study supports the idea that pedagogical linguistic landscape projects, in particular from authentic, contextualized multilingual input, can have direct benefits for English learners to develop their symbolic competence and their critical literacy skills.

The other study we referred to above was by Barrs (2016) who started from a slightly different angle. He reported on a group of 20 Japanese university students in a third-year class on World Englishes. He asked the same question as Rowland about the use of English on signs in Japan. The students' task was to photograph English inscriptions, and then describe each sign in 50–100 words. Barrs (2020) emphasized that students who research linguistic landscapes will learn to critically reflect on the use of English in society, which we consider a valuable outcome of his work.

Apparently unaware of the work by Rowland, Barrs or our 2008 article, and coming from a different tradition, Hayik (2017, 2020) was working with the tool PhotoVoice in her English course for Arab students at a teacher training college in Israel. The students first went out to take photographs of signs in Arab, Jewish and mixed Arab-Jewish towns. Second, they were asked to comment on the photos supported by a set of pre-given questions about the languages, the inclusion or exclusion of groups and what they would want to change. Finally, they were asked to write their comments. A document containing a combination of photos and written comments is called a PhotoVoice. Hayik (2017: 191; 2020: 207) claims that the combination of PhotoVoice with linguistic landscapes is new. Perhaps in a strict sense this is the case, but the method has strong similarities with the tasks in the projects by Sayer, Rowland and Barrs mentioned above. It further reminds us of the work by Dagenais *et al.* (2009) and Clemente *et al.* (2012) to develop critical reading skills, although those young children did not write down comments but made, among other things, a collage (see Section 10.2.3)

In the Culture in Place project, Malinowski (2010) worked with English learners in Korea. The project has some similarities with the projects above, but an important difference is that it took place virtually and it not only involved learners of English in Korea, but also Korean learners at a university in the United States. The two groups interacted through a dedicated website where they discussed Korean–English signs to foster their reading abilities and to develop fluency in the target language by using real places and activities. The experiences of students are narrated from an insider perspective by Chesnut *et al.* (2013). The story is told of three Korean students majoring in English interpretation and translation, who carried out a linguistic landscape project as a pedagogical activity. The authors show how the experiences of the students allowed them to obtain a better understanding of language, culture and communication. They concluded that 'at the most fundamental level this research project led these three students to reconsider how they use language and how language is used around them' (Chesnut *et al.*, 2013: 112). In Kim and Chesnut (2020), the authors presented further suggestions for activities for English language lessons in which the students examine linguistic landscapes, this time by virtual means. For example, with the

aim of learning vocabulary, the Korean students were asked to do a tour through Google Street View of an American city full of English language signage or, for example, they found images of product packaging on the internet to consider different aspects of adjectives.

In Beijing, Ying (2019) took a different approach to examining the beliefs of English language learners, among three groups of students (total $n = 203$). He focused on noticing English in the linguistic landscape, the pedagogical value of the signage and opinions on the schoolscape. The results showed that all students did notice English around them, and they also saw advantages for improving their English. Differences between the groups regarding improving vocabulary, literacy or critical thinking were attributed to the students' background and different English learning methods (although no statistical testing was done). In another study in China, Shang and Xie (2019) investigated the attitudes of English teachers toward the use of the linguistic landscape. The teachers ($n = 295$) answered a 30-item questionnaire and 26 teachers were interviewed. The results showed a high awareness of English on public signs among the teachers and they recognized its importance for English teaching. Their opinions do not seem to be influenced by the debate in China on the correctness of English on signs or on 'poor' English in translation and spelling. According to Shang and Xie (2019), the teachers argue in favor of the same six benefits of learning from the linguistic landscape, as formulated in Rowland (2013), based on Cenoz and Gorter (2008). The results further show that these English teachers do not have clear ideas on how to implement the linguistic landscape in their classroom. The outcome that teachers have favorable attitudes, but are unsure how to implement linguistic landscape tasks, was also found in other studies.

Linguistic landscape materials can be used not only with university students and language teachers, but also with other learners of English (or other languages). For example, Roos and Nicholas (2020) reported the results of a study among younger children between the ages of 8 and 11 in Germany. They were asked to locate examples of English outside their classroom and then take a photo, cut out an image or draw the example and bring it back to the classroom. The students mainly brought signs of advertisements, and toys, clothes, books or food, which came from their home. These young learners considered English as a normal, taken-for-granted aspect of their daily life. Roos and Nicolas (2020) found important benefits in raising young students' awareness of English and showing them the potential of their own environment for learning the language. The authors mention Malinowski's (2015) ideas on Lefebvre's three dimensions of perceived, lived and conceived spaces and they conclude 'our study has shown that primary age learners of English in Germany do not require specific (additional) training to reflect on all three dimensions' (Roos & Nicolas, 2020: 108). In contrast, Kirkgöz (2021) worked with adults by creating an English language learning

environment inside the workplaces of a textile company in Turkey. As part of an in-company English language course, the researcher-teacher placed posters with images and relevant terminology on the walls of the offices and the factory floor. Afterwards, interviews with the participating workers showed that most of them felt that the posters were beneficial for incidental learning of specialized vocabulary in English.

All the studies summarized above indicate how linguistic landscape projects can be a powerful tool in the English language classroom and how they can change the perceptions, motivations and attitudes of the learners involved. Building on this work and that of others, Solmaz and Przymus (2021) have created a pedagogical guidebook for English language teaching, available as an interactive e-book, which contains a section with a sample of linguistic landscape-based lessons.

10.2.3 A tool for learning Chinese, Italian, Spanish, German, French and other languages

Inspired by publications on English language teaching mentioned above, other researchers and teachers have developed similar approaches for other languages such as Chinese, Italian, Spanish, German and French. For these languages, a few examples of studies are given.

Mandarin Chinese was the focus of the study by Leung and Wu (2012). They discussed the spread of Mandarin as a global language and specifically looked into Mandarin and varieties of Chinese in the linguistic landscape of the Chinatown in Philadelphia. They observed a mismatch between the languages used on the signs in this community and the ‘Chinese’ taught in the language classroom. They argue that the linguistic landscape can be useful when teaching Mandarin ‘as a pedagogical resource to teach pragmatics, language forms, vocabulary, idiomatic expressions, grammatical features, etc.’ (Leung & Wu, 2012: 121).

Bagna and Machetti (2012) linked an Italian language course to a survey of Italianisms (and fake Italianism) in brand names and restaurant menus around the world. The survey showed how other languages have incorporated Italian words from cuisine and fashion. The authors pointed to relations between commercial products and the perception of Italian as fashionable and of good taste. A remarkable result came from a group of international students who took an Italian course. It turned out that the first Italian words these students had learned came from brand names and food products. As one of their students remarked, Italian is ‘the language of fashion and good cuisine’ (Bagna & Machetti, 2012: 223). Those elements from public signage had made them interested in taking the Italian course in the first place. In a later study, in another Italian course for international students, Bagna *et al.* (2018) used items from the linguistic landscape which resulted in an increase in language proficiency.

For teaching Spanish in the foreign language class, Ma (2018) conceived of the linguistic landscape as a new teaching tool, complemented by traditional teaching materials. Ma elaborated a lesson plan for teachers of Spanish based on a selection of authentic signs for use in class. In a Spanish course at a university in Israel, Aladjem and Jou (2016) carried out a small case study among 28 learners. The task was to find items related to Spanish from their daily surroundings and post them in a Facebook discussion group. The author-teachers found a positive result because the language awareness of the students had been raised and they had, at least, started noticing the Spanish items in public spaces as a source of input. A rather similar project is described in great detail in Hernández-Martín and Skrandies (2020). In a university in London, a group of students enrolled in a Spanish intermediate degree course were engaged in online and offline activities among the Spanish community in the city. The authors conclude 'that there are several distinct advantages and benefits in… integrating the observation and understanding of the local linguistic landscape into language teaching and learning practices' (Hernández-Martín & Skrandies, 2020: 318).

Spot German is the name given to a somewhat similar approach reported by Marten (2017). The search for German in public spaces was used in a broader sense including any objects related to a German-speaking country due to cultural-historical connections or to tourism. Heimrath (2017) reported how he developed the approach on the island of Malta in 2013 during a photo contest in a Facebook group for learning German. Saagpakk (2017, also 2018) gave a description of various school projects in Estonia, in which the linguistic landscape and the history of Baltic Germans are linked. In one project, secondary school students used their mobile phone in a treasure hunt to find and decipher traces of German. In another project, university students of German literature looked up texts in German on monuments or other landmarks related to the historical relations between German and Estonian cultures. Related to the same Spot German approach, Saagpakk and Frick (2020) provide an account of the results of a competition titled 'German in my environment' (*DACH in meiner Umgebung*) among students of secondary schools in Estonia, who study German as a second or third foreign language. Again, the students collected German language texts, symbols and products from their environment. The authors mention the lack of focus on the development of language skills as a possible disadvantage of such linguistic landscape projects.

German as a foreign language is also the focus of a study carried out by Bever and Richardson (2020), who worked with a group of students at a university in Tucson, Arizona. This project has some similarities with the Spot German work by Saagpakk, Marten and others in the Baltic States. Bever and Richardson applied the approach of 'perceived', 'conceived' and 'lived' spaces as proposed by Malinowski (2015) (see

Section 10.2). The main task for the students was to find examples of German or the German-speaking world in the linguistic landscape of a city which the student perceived as lacking any German beforehand. In a similar vein, Maxim (2020) describes the details of a linguistic landscape assignment as part of a three-week study abroad course for American students of German in Vienna. As part of the task, the teacher walked with the class along a commercial street, while the students were instructed to observe the signs around them and answer questions adapted from Malinowski's (2015) conceptualization of perceived, conceived and lived spaces. The conclusion of these studies is no different from other authors, namely, that the linguistic landscape can be successfully incorporated into the foreign language curriculum.

The teaching of French as a foreign or additional language is the focus of a recent edited collection. The book contains various chapters on the application of the linguistic landscape. For instance, Brinkmann and Melo-Pfeifer (2022) examined teachers' perspectives, Eibensteiner (2022) discussed the integration of mother tongues in the French class and Mitschke (2022) looked into learning content in the context of the linguistic landscape of the French-speaking Aosta valley in Italy. Our contribution to this collection dealt with how the teaching of French can take advantage of the linguistic landscape (Gorter & Cenoz, 2022).

Of course, the same or similar approaches to those mentioned in the studies above can be applied to the teaching and learning of any other language. If the language in question cannot be found (or spotted) in the immediate surroundings, it is always possible to find it online. Perhaps, at first this is limited vocabulary and the activity does not entail learning other linguistic aspects, but time and again the studies demonstrate that public signage can be a useful pedagogical tool and a springboard for language teachers to motivate beginning students. In this way, the new language may become more attractive to the learner, leading to a desire for further learning of the language and the culture. The examples given above corroborate the claim that linguistic landscapes are an effective tool for language learners and teachers, who can benefit from working with real-life visual and literacy materials, even if only digitally.

10.2.4 A resource for learning about languages

From the foregoing section, it has become clear that the linguistic landscape can provide engaging ways to learn and to teach a new language, but it can also serve other educational purposes. Public signage can contribute to increasing students' knowledge about languages in general and it can also help make them aware of related issues such as multilingualism and linguistic diversity. As we see in the examples of studies below, signage in society and in the school context covers a

variety of issues that students can examine and that leads to a deeper understanding of historical, political and social issues and of values, identities, ideologies and cultures. Of course, this includes language in a broad sense, including multimodal and material aspects but possibly also more linguistic features, such as orthography and syntax.

First, we show some studies on how linguistic landscapes can enhance general knowledge about language. The second topic is multilingualism and linguistic diversity. The third topic concerns using linguistic landscapes to learn about political and social issues, values, identities, ideologies and cultures. In Box 10.1, we present our study in which we investigated using specific linguistic features to enhance metalinguistic awareness based on the opportunities of public signage. For each of these topics some examples will be given, partly from our own work but mainly from work by other researchers.

As we will see, university students as a group are over-represented in these studies because they are often readily available and easily accessible, as in other fields of academic research. However, linguistic landscapes have been used as a resource for teaching at different levels of education, including primary and secondary school.

10.2.4.1 Knowledge about languages

First, we discuss the topic of enhancing general knowledge about languages or language awareness (Gorter & Cenoz, 2017). We begin with the reflections of Hewitt-Bradshaw (2014: 158), who asked 'How can signs, images, and objects in the Caribbean LL [linguistic landscape] be used as teaching resources in literacy classrooms?'. She reflected extensively on how teachers can develop critical language awareness and communicative competence, even if she did not carry out an empirical investigation. She further contemplated how the linguistic landscape can be useful to develop students' critical literacy and their pragmatic competence, and make them recognize the ways in which the landscape seeks to influence them. Interestingly, Hewitt-Bradshaw (2014: 171) observed that 'the fact that texts in landscape are visible does not mean that students always see them, pay attention to them, read them, or understand how they work'. This observation was confirmed in a study in France about an increase in the presence of Breton as a minority language in the linguistic landscape. Hornsby (2008) included the results of a questionnaire among a sample of school children ($n = 36$) about their awareness of local signage in Breton. To his surprise, he found that only a few children were aware of Breton on the signs (or on the menu of a local fast-food restaurant). However, Hornsby did find positive reactions to the idea of having Breton on more signs in public places. The study also showed that without any direct engagement with the linguistic landscape, awareness about languages may be low.

In the foregoing section, we mentioned the guidelines of Malinowski (2015) for language learning. Malinowski (2016) aimed to motivate his students in an undergraduate course at UC Berkeley, in which the students had to actively engage with the linguistic landscapes outside the classroom. Malinowski presents the details of the course's design, and how the students learned about critical seeing, how they pursued discussions with residents and how the course related to teaching about language. *Educational landscaping* is what Scarvaglieri and Fadia Salem (2015) called the use of the linguistic landscape for training teachers in Hamburg, Germany. In a series of workshops, the teachers had to document the linguistic landscape of their own institution, then work with those materials and start reflecting on their own linguistic practices. Interviews with the teachers demonstrated that the project promoted the active engagement of teachers with language and created a heightened level of language awareness.

These studies by Hornsby, Malinowski, and Scarvaglieri and Fadia Salem show the importance of active engagement with the linguistic landscape for enhancing general awareness about languages.

10.2.4.2 Multilingualism and linguistic diversity

The second topic is more specific as it concerns awareness of multilingualism and linguistic diversity in or through linguistic landscapes. For example, Lazdina and Marten (2009) mentioned a study in which university students assisted in a research project on linguistic landscapes in the Baltic States. The authors show that the involvement of students in data collection and analysis increased their awareness of multilingualism and led to a better understanding of hierarchies of language use and prestige. Lazdina and Marten (2009: 212) remarked that the linguistic landscape is 'an easy and enjoyable way of involving students in field work'. Another angle on the same issue was taken by Li and Marshall (2018), who supplied an insider account of one student-researcher (the first author). As part of a university course on ethnographic research methods, she investigated the linguistic landscape of Chinatown in Vancouver. The narrated account gives details of how interpretations of different aspects of the linguistic landscape were shaped during the fieldwork and how the research task allowed the student-researcher to make connections between theories about multilingualism and local practices. Some years earlier, Hancock (2012) had already exploited those same links in a project in which student teachers became researchers of the linguistic landscape. The student teachers took part in a 'camera safari' to engage them in reflecting on their own multilingual community. Hancock wanted to find out how the future teachers responded to the English-dominated linguistic landscape in the city of Edinburgh. He used the linguistic landscape as an awareness-raising technique 'in order to prepare student teachers for the

reality of multilingual schools' (Hancock, 2012: 255). His study showed unmistakably how drawing the students' attention to the linguistic landscape heightens their awareness of linguistic diversity.

Multilingualism and linguistic diversity also stood central in a small-scale study by Albury (2021). Small groups of Chinese-Malaysian undergraduate students ($n = 40$) were shown three photographs of authentic multilingual signs. The students were given the instruction to reflect on the photographs and to say what they noticed. This resulted in insightful comments about multilingualism and linguistic diversity, beyond the specific linguistic landscape itself. An interesting earlier example along the same lines, but this time not involving university students, is provided by Dagenais *et al.* (2009). This group of researchers worked with elementary school children in Montreal and Vancouver in Canada. They asked the pupils to photograph their own surroundings in order to document their urban environment. The project demonstrated the relevance of the linguistic landscape for teaching about language diversity, multilingualism and literacy practices from a critical perspective. The children learned to better understand the sociopolitical context in which they were living through their own investigations into public spaces. Dagenais *et al.* (2009: 255) argued that the texts and signs '…must be deciphered, read and interpreted by citizens who participate in the consumption of the moving, literary spectacle of the metropolis'. In another publication, Dagenais *et al.* (2008: 141) argued that incorporating language awareness into the classroom helps to promote the learning of other issues such as 'the evolution of languages, relationships between languages, as well as a critical stance on the relative status of language'. One way they propose to do this is by including linguistic landscape projects in classes. In a follow up to the Canadian example, Clemente *et al.* (2012) applied a similar didactic strategy in a project among a group of 20 children at a Portuguese primary school in Aveiro (6 year olds). The title of the project expressed the aim well: Learning to Read the World, Learning to Read the Linguistic Landscape. The researchers developed an intervention of eight lessons which demonstrated that the children were able to improve their ability to recognize and read signs in different languages. The researchers emphasize the importance of understanding attitudes toward diversity and developing linguistic and cultural competences. In this approach, the linguistic landscape is viewed as a mirror of societies which is used to create awareness about social, economic and political issues such as equality and exclusion (Figure 10.2).

Hatoss (2023) shifted the focus from what is visible to what people experience in their surroundings. Through the eyes of student ethnographers, the author offered insights into the linguistic landscape of the suburbs of Sydney. A multimodal lens is used to raise awareness about the various languaging practices in changing multilingual spaces.

Figure 10.2 Sign of Asian restaurant in Aveiro, Portugal

The final example of this section is the multi-annual LoCALL project which starts from the idea of schoolscapes as a resource for learning about languages (https://locallproject.eu/). It is a European project, where LoCALL stands for Local Linguistic Landscapes for Global Language Education in the School Context. The researchers focus on awareness of languages, multilingualism, superdiversity and global citizenship education. As part of the project, the participants develop modules for teacher training, which include videos, tutorials, podcasts and a learning app. The language learning app is a resource for students who play a game in which images of the linguistic landscape are used to explore different cities. Besides a number of publications (e.g. Brinkmann *et al*., 2022), an important outcome of the project is an edited book (Melo-Pfeifer, 2023) that describes various case studies for teacher education programs in five European contexts: France, Germany, Portugal, Spain (Catalonia) and the Netherlands (Friesland).

10.2.4.3 A case study of our students in the master's degree on multilingualism and education

In the introduction (Section 10.1), we quoted the reflection of one of our students on her work with linguistic landscapes. She was enrolled in the one-year European masters in multilingualism and education (EMME) at the University of the Basque Country. Every academic year, these students carry out one linguistic landscape task as part of their course work. Some details of this assignment are provided here, in three variations, and perhaps it will inspire readers for their own classes. We have also summarized the essentials of this task in Gorter *et al*. (2021) and we presented a comparison of the pre-pandemic year with the task during the first year of the pandemic in Gorter and Cenoz (forthcoming).

EMME is a one-year research master's degree (60 ECTS) consisting of two obligatory courses (12 ECTS), a choice of optional courses

(33 ECTS) and a master's thesis (15 ECTS) (EHU-EMME, 2022). The whole masters can be studied in English, but then the student cannot choose between the optional courses because some optional subjects are taught only in Basque or only in Spanish. Students who can take classes in Basque have the most choice; thus, knowing the minority language is an advantage. The obligatory course titled 'European minority languages in education' has as its aims (1) to explore the world of European minority languages and (2) to learn about how academic research is done. The course consists of lectures, a set of readings, in-class presentations and discussions, and online forums. The students carry out 10 different assignments either in groups or individually, and the task on linguistic landscapes is one of those assignments. We provide some general background characteristics of the students who have taken this course.

In the first year, 33% were foreign students (six students), in the second year around 40% (five students) and in the third year, the first of the pandemic, only 17% (three students) were foreign students. Most students came from the Basque Country, and about half of them had Basque as their first language. Some students were from the rest of Spain and the foreign students came mainly from Europe, but also from America and Asia. All students were multilingual as most of them were able to speak several languages and they could all communicate in English. Most of the foreign students had at least a basic command of Spanish and all the Basque students had high proficiency in Basque and Spanish. The students were between 22 and 35 years old, with a mean age of just over 23 years and most students were female. About two-thirds of the students had completed undergraduate studies in teacher training, pedagogy and Basque or English linguistics, while the other third had studied a range of other specializations. Most of them came to the masters immediately after finishing their undergraduate studies; only a handful had prior working experience and some were working in part-time jobs in parallel with the masters. These background characteristics were not substantially different between the three years.

A local version of an electronic learning environment, eGela, based on Moodle, was used for storing materials, uploading assignments and debating various issues in forums. During the academic year 2020–2021, the pandemic forced the whole course to be moved online and class sessions were taught through the Blackboard Collaborate platform. The transition to an online environment was challenging, and it can be compared to the impact of COVID-19 on universities around the world (e.g. Schleicher, 2020).

The linguistic landscape assignment consisted of three stages. In the first stage, preparations took place, including an introductory lecture on core topics and research methods in linguistic landscape research, reading some articles and, in the last two versions, answering questions on pre-given signs.

Part of the preparation stage was to allocate every student to a group that should collaboratively carry out an investigation of the linguistic landscape. The instruction was to collect photographic data of signs, draft research questions and decide on their methodological approach. This preliminary orientation was reported back in writing and presented in class.

In the second stage, the small groups carried out the actual fieldwork, including photographing signs, analyzing the data and preparing a presentation in class. After two weeks, each group gave a presentation of their work in class that was discussed with all classmates. After the presentations, the teacher provided written feedback based on a rubric with criteria including group collaboration, demonstrating knowledge of content related to linguistic landscape, and overall content and organization of the presentation.

The third stage was an individual reflection and evaluation on the task. This last stage included questions on the goals of linguistic landscape research, the relevance of outdoor learning and a reflection on the linguistic landscape assignment that the students had to answer at home and send to the teacher.

During the first academic year that we discuss, there were 18 participating students who were asked to prepare a short presentation about the linguistic landscape in the format of a *Pecha Kucha* (a presentation style where a total of 20 slides are used, each for 20 seconds; Beyer, 2011). The same presentation format had already been used in previous years. As part of the readings for the course, they were given two publications on linguistic landscapes (Gorter, 2013; Marten *et al*., 2012). After this, students were divided into six groups of three people. Each group was required to take photographs of signs in a public space of their choice, for example, a street in their town. Two weeks later, the Pecha Kucha presentation had to be delivered by one of the group members. Finally, each group wrote up an analysis of all the signs included in their presentation by answering the following five questions for each sign:

(1) Location: Which is the context where the sign is placed? How does it fit there?
(2) Meaning: What meaning will passersby (readers) derive from the signs?
(3) Readership: Is the reader assumed to be bilingual or can he/she also be monolingual?
(4) Status and power: What is the relative status of the languages? Is there a hierarchy or power difference? How can you tell?
(5) Multimodality: What about multimodal dimensions? (e.g. does the use of type or size of font or colors add to the meaning of the sign? or is the placement in the context important?)

Similar sets of questions about signs have been asked in comparable projects, e.g. Lee and Choi (2020: 189–190), Rowland (2013: 498) and Sterzuk (2020: 148).

The students evaluated the linguistic landscape activity as one of the most positive elements of the whole course. It literally opened their eyes and gave them a new perspective on multilingualism. One student wrote in her comments 'If I had not been taking this course I would not have thought to look into linguistic landscapes' and another student observed that 'I am more aware of language use when traveling or visiting a new city'.

To make it more focused, in the second academic year a different approach was chosen for the assignment. A publication on linguistic landscapes was made available (Gorter, 2019a). This time, each of the four groups of three students was assigned to one pre-selected street in Donostia-San Sebastián. Each group had at least one Basque speaker, so that all signs could be understood. The students were instructed to design a small study, which was to include formulating research questions, deciding on a methodological approach and some desk research (e.g. statistics on the neighborhood). The fieldwork included not only taking photographs of signs but also conducting some street interviews with passersby and shop owners. This time, students were requested to answer five questions individually about 10 signs as part of their preparation for the fieldwork. The questions were similar to those mentioned above for the first year. The emphasis shifted somewhat to who placed the sign and why, and to the meaning the students could derive from each sign (and not the passersby) (Figure 10.3).

Figure 10.3 Pre-given signs as a collage

In the subsequent evaluation, one student referred to the questions as 'the most difficult part of the assignment'. Another change was that the students had to prepare a video presentation as the end product instead of a PowerPoint one. Afterwards, the reflection task consisted of answering the following three open questions:

(1) How do you link changes in the object of linguistic landscape study (changing urban spaces, multi-ethnic populations, tourism) to technological possibilities enabling data collection and storage?
(2) List and argue four possible goals of linguistic landscape research.
(3) What are your impressions about this assignment for outdoor learning?

In their written reflections, the students showed how they enjoyed doing the task. As in previous years, they had not given much thought to the linguistic landscape beforehand, but after this assignment they saw signs with different eyes. A typical answer was: 'It was totally different to see my same everyday environment with different lenses'. Another student wrote, 'Going to the streets and having real pictures was crucial for me'.

In the following academic year, education around the world was impacted by the COVID-19 health crisis. This did not influence the total number of registered students, but there were fewer international students. A new class of 18 students in the master's degree carried out the same task. There were some important differences though because all classes were online, and so was the introductory lecture. There was no recommended publication on linguistic landscapes because of the larger number of readings for the sessions in the rest of the course. The students were divided into five groups with four or three members. The street interviews had to be canceled to avoid approaching strangers and not keeping a distance. During the autumn semester, there was no strict lockdown and the students were allowed to go into the street to take photos. Due to the pandemic, two groups chose different streets in small towns, where one of them lived, so they could avoid traveling. During the instructions, they were told that they were allowed to do the whole assignment online, for instance, by using Google Street View.

One of the groups compared the signs before and during the pandemic. They first studied the pre-selected street through Google Street View (recorded in July 2018) and only later went there to take photographs. Obviously, the streets showed many new signs during the pandemic. One of the members of this group wrote in her reflections: 'there are many new signs related to the COVID-19. I have seen that in practically all the shops and restaurants there are signs informing us about measures to protect ourselves'. Many of the regulative and warning signs had never been seen before.

The applied side of working with real-life materials of multilingual signage from their familiar surroundings was highly appreciated. One student wrote as a reflection: 'I really enjoy doing that kind of practical research and the idea of creating a video really fits my interests'.

We can state, as a general conclusion, that using the linguistic landscape in this masters made it possible to connect the content of signs to ideas about multilingualism and linguistic diversity. The reflections of the students made it clear that the assignment had enhanced their language awareness and knowledge about multilingualism. This confirms how the linguistic landscape can be used as an effective and powerful pedagogical tool, even when the circumstances are challenging.

The linguistic landscape task obviously benefits our master's students, but it can be applied in an educational context to almost any age group.

10.2.4.4 Social issues, identities, ideologies, values and cultures

A third topic, related to the former two of 'knowledge about languages' and 'multilingualism and linguistic diversity', is using linguistic landscapes for teaching and learning about historical, political and social issues, values, identities, ideologies and different cultures. Shohamy and Waksman's (2009) quote in Section 10.2 on 'meaningful learning' already hinted in that direction. It came from their analysis of the site of the Ha'apala monument in Tel Aviv, Israel. They conceived of the site as a linguistic landscape and as a resource for learning about cultural and historical meaning. The monument commemorates the illegal immigration of Jews into Palestine during the British Mandate before and during World War II. Hebrew and English are the languages on display for different intended readers: locals, who understand the Hebrew texts, and international tourists and Jewish visitors from abroad, who more likely read the English. Arabic is completely missing, although Israeli Arabs played an important role in the historical events commemorated (Figure 10.4).

In their analysis of this monument, Shohamy and Waksman showed how it can be used for multilingual and multimodal analyses and how it is a resource that can be applied to education and activism. They were able to demonstrate that this monument in particular, but equally linguistic landscapes in general, can be an educational tool for interpreting contested political and social issues.

This was shown by Li (2022) who carried out a project among undergraduate students taking an advanced course on Chinese language and culture at a university in a southern city in the United States. The students undertook field trips in which they conducted linguistic landscape research in various neighborhoods. Li adopts the framework of Lefebvre based on the suggestions in Malinowski (2015; see Section 10.2) in

Figure 10.4 Ha'apala monument (detail), Tel Aviv: bilingualism Hebrew–English

designing learning activities to explore the 'Chineseness' of the linguistic landscape. The students move from their own conceptions ('I think') about what the linguistic landscape should be like, via their photographic documentation of signs ('I observe'), to experiences through contact with local actors who reside in the linguistic landscape ('what they think'). Similar to Malinowski, Li argues that these activities contribute to a critical reflection about cultural authenticity and becoming more meta-culturally aware. Culture was also a topic in Li *et al.* (2022) who studied beginning learners of Chinese and Korean ($n = 48$) in an American university. The students were involved in a linguistic landscape project that emphasized critically reflecting on cultural authenticity. The empirical findings, based on a questionnaire, show a broadening understanding of culture.

A different age group can be found in Sullivan *et al.* (2022). They worked with a group of sixth-grade primary school pupils in a highly diverse town in the north of Sweden (population: 100,000), 250 miles south of the Arctic Circle. Teaching at this school is provided in 42 mother tongues. Their study focused on the representation of democratic values in the town's linguistic landscape, and it was shown how the pupils learned about those values through signage.

The message to take away from these studies is that historical, social and political issues reflected in signage, as well as values, identities,

ideologies and cultures can enhance students' learning at different levels of education, from primary school to university.

BOX 10.1 METALINGUISTIC AWARENESS IN A RESEARCH PROJECT ON TRANSLANGUAGING

Here we discuss metalinguistic awareness related to the linguistic aspects of signage. The linguistic level of public signage is emphasized by Huebner (2016a: 6) when he argues that this contributes to students' 'increased awareness of lexical borrowing, syntactic patterning, and phonological adaptation'. We agree with Huebner that using authentic signage can be a tool to learn about features of the linguistic system. We were able to demonstrate this in a research project on translanguaging in a Basque primary school. Full details of the project and its outcomes on translanguaging, cognate and morphological awareness can be found in Leonet *et al*. (2020) and Cenoz *et al*. (2022). Here, we summarize the most important elements of the part on linguistic landscapes. Translanguaging materials, which combined two or three languages in one lesson, were developed specifically for the intervention. The materials were based on the Focus on Multilingualism approach (see Chapter 6) and our principles of pedagogical translanguaging (Cenoz & Gorter, 2017, 2021). One goal was to increase metalinguistic awareness.

The theme of Linguistic Landscape in Your Town was included in one module during the Spanish language class. The exercises included working with cognates, compounds and derivatives as they appear on signs in order to enhance metalinguistic awareness. In one task, the students analyzed some signs and compared them in the three languages. For example, a sign with the word 'liburudenda' (see Figure 10.5) which in Basque is a compound of 'liburu + denda'. They compared it to the English 'book + shop', which has the same elements and word order, as well as to the Spanish 'librería', which made them aware that it is different.

In general, we found that the exercises with the compound and the derivatives were rather difficult and that the sixth graders did better than the fifth graders. After finishing the linguistic landscape module, the students were asked to provide a self-evaluation on what they had learned. We found that 68% answered that they looked at the linguistic landscape when they walked the streets, 26% sometimes or it depended and 4% said they did not. Answering the question as to why the signs were created, 26% answered 'to give information', 30% 'to give directions', 20% 'a combination of both' and 20% 'other', where some filled in the blanks with 'to know what they sell' or 'to know what is in each shop'. The open question 'What did you learn about the linguistic

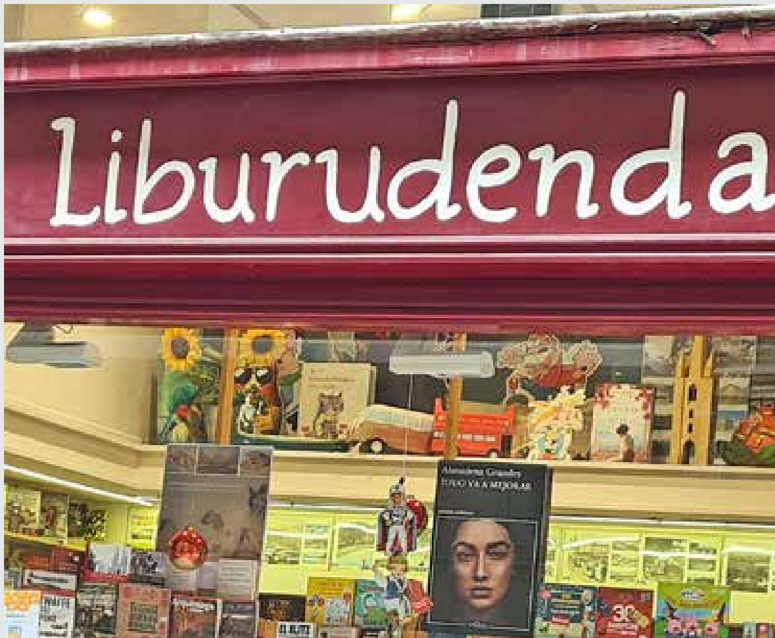

Figure 10.5 Liburudenda - Bookstore

landscape?' received typical answers. For instance, a sixth grader wrote 'New words; - what is on the posters; - derivatives; - false friends; - I have learned what a linguistic landscape is'. One of the fifth graders demonstrated the skills to give a basic analysis when she wrote, 'That in [my town] more than two languages are spoken and that Basque has many composite words. Some of the languages on the signs are Basque, Spanish, English, Berber, and Romanian'. (The original answers were written in Basque; the translation is ours.) The insightful answers of the fifth and sixth graders convinced us that the students had obtained more knowledge about languages, and one important outcome of the whole intervention was an increase in metalinguistic awareness (Leonet *et al*., 2020; we also summarize the same activity in Gorter *et al*. [2022]).

The example shows once again that learning from or with linguistic landscapes is not limited to enhancing awareness about language, multilingualism and social issues, but can include learning about morphology, syntax and pragmatics.

The main message from the various examples given is that they demonstrate how different groups have used linguistic landscape data successfully as a workable pedagogical tool. Reflecting on signs usually enables students to learn more about languages in general, or about

linguistic diversity and multilingualism, about social issues and ideologies or enhance their metalinguistic awareness. The ideas mentioned above can inspire language teachers when designing activities for the learners in their classes because the linguistic landscape can enhance awareness. In particular, in language education programs the inclusion of training activities related to linguistic landscapes can be relevant (Hayik, 2020; Kim, 2017; Scarvaglieri & Fadia Salem, 2015). We have mentioned some chapters from the edited collections by Malinowski *et al.* (2020) and by Niedt and Seals (2021) in which various opportunities for learning beyond the classroom were discussed. The guide by Solmaz and Przymus (2021) contains several practical suggestions and lesson plans.

Today, most students have access to a smartphone with a digital camera or a tablet, except for the very young and not in all countries. This circumstance provides the teacher with an opportunity for learning assignments on linguistic landscapes. For such assignments the idea of bring your own device (BYOD), originating in the world of the workplace, can also be applied in an educational context and no special equipment, software or technological infrastructure is needed (although safety and legal considerations may be important) (Song, 2014).

The positive learning effects from the studies mentioned above can be contrasted with two studies where the outcomes were more mixed. De Saint Léger and Mullan (2021) designed a pedagogical activity for Australian students of French in a study abroad program in New Caledonia, a French territory in the Pacific Ocean. The task about the linguistic landscape was included in an existing reflective journal task in which the students write about their experiences. The authors compared the journals of four students to a similar group from a previous year who did not do the linguistic landscape task. The difference between the journal entries of the two groups turned out to be small because the students focused more on social and political changes and were little involved with signage. The authors conclude that the students required more training to learn to better perceive the different dimensions of the linguistic landscape. Likewise, the outcomes reported by De Wilde *et al.* (2022) are somewhat mixed. In their study, De Wilde and her colleagues involved master's students at a university in Ghent. Various students reacted positively and 'highlighted the fact that the activity made them observe differently and enter in direct contact with language in the public space'. However, in a somewhat negative way, other students 'indicated they did not learn much more during the activity' (De Wilde *et al.*, 2022: 223).

These outcomes make it clear that some caution is needed and that the celebratory tone in some studies about the linguistic landscape as a pedagogical tool full of unused potential and benefits for the students, may not always be justified.

10.3 Schoolscapes

In this second half of the chapter, we focus on the schoolscape, that is, on linguistic landscapes as they can be found inside educational institutions. Those schoolscapes can be used for learning purposes, but they have also been investigated as to whether or not they reflect the (oral) use of languages inside this context.

First, in Section 10.3.1, we discuss the development of the concept of schoolscape in the work of Brown on the Võru in Estonia. Then, in Section 10.3.2, we discuss a number of studies that have investigated schoolscapes in different geographic and cultural contexts, varying from preschool to university education. We see that some studies investigate the languages and cultures represented 'on the walls', whereas others focus on the language policy behind the appearance (or not) of the languages. Still other studies have taken as their point of departure ideas on translanguaging (see Chapter 6), and a few studies have taken the schoolscape outside of the direct educational system and have brought it closer to language learning, as we discussed in the sections above. In Section 10.3.3, we summarize our own study on the functions of signs inside schools, and in Section 10.3.4, we look into the special case of linguistic landscapes in textbooks and learning materials. We end the chapter with some concluding remarks.

10.3.1 Developments in the concept of schoolscape

Brown (2005, 2012) introduced 'schoolscape' as a central concept in her study among the Võru community in Estonia. The term refers to 'the physical and social setting in which teaching and learning take place' (Brown, 2005: 79). The schoolscape thus includes signs, symbols, images, textbooks and artifacts inside classrooms, and also in the entrance, foyer, corridors, in a school museum, and in the curriculum, as well as spoken languages. As we will see, several researchers have taken this perspective on languages displayed in an educational system and the concept of schoolscape fits in with the wider linguistic landscape field.

Here, we can show the development of the concept in Brown's work. The study about the Võru community in Estonia showed that the local language was largely invisible in education due to the dominance of Estonian, the state language. Only in recent times have schools started to introduce the Võru language on a modest scale, thus providing a social context for the re-emergence of the minority language. Brown's definition of the schoolscape is rather wide ranging because she sees it is an important part of 'the set of assumptions and expectations for what is normal, appropriate, and legitimate' (Brown, 2005: 79). Her idea of a schoolscape includes physical symbols such as flags, the schools' website and all kinds of spoken language and songs. Signs, for instance a poster or a map, are just one element of this broad definition of schoolscape. In

her later work, Brown (2012) seems to give a stronger emphasis on the display of signs on the walls of schools as the core of the schoolscape, although she does not exclude the other aspects. Brown identified two main functions for the regional language: first, as 'enriching national culture' and second, its 'use as an historical artifact'. She found that schoolscapes reflect ideologies about the local minority language and the related representations of identities. These findings made her change her definition of schoolscape to 'the school-based environment where place and text, both written (graphic) and oral, constitute, reproduce and transform language ideologies' (Brown, 2012: 282). Comparing Brown's original definition (see above), with the more recent version, one can observe that the focus has shifted from the physical and social settings to include the role of language ideologies.

About 10 years later, Brown (2018) revisited the Võru community which enabled her to obtain a long-term diachronic perspective on the schoolscape. This time, she addresses issues of enduring norms and changing practices. She expanded her definition by including the temporal dimension in order to emphasize the diachronic and dynamic aspects. First, she reformulated her earlier definition: 'schoolscape signifies both a place - those school-based environments where place meets text, whether written (graphic) or oral - and a set of processes because the text and place, working together, constitute, reproduce, and transform language ideologies'. Second, she added change as a dimension: 'schoolscapes are continuingly changing in their scope (e.g., within a classroom, school or nationally) and tempo (e.g., accelerated by revolution or government changes)' (Brown, 2018: 12). Over the years, the concept of schoolscape in Brown's work has developed, not only in her work, but also in that of others, as will become clear in the next section.

10.3.2 The language on the walls of education institutions

The notion of *schoolscape* appears as a suitable designation to apply to the signage on display inside education institutions, including their immediate surroundings. Obviously, this conception is narrower than Brown's definition. An alternative designation such as *educationscape* (Vandenbroucke, 2022) has been proposed. Schoolscape has similarities with the linguistic landscape of public spaces more generally, but there are obviously also important differences. For example, the production of signs is often less professional because students produce many signs, which have a distinct character.

The concept of schoolscape has been applied in different ways, as can be demonstrated by various empirical studies in different contexts that investigated the 'signs on the walls'. We begin with studies that conceive of the schoolscape as a reflection of the languages and cultures present in the school. For example, Garvin and Eisenhower (2016)

examined the schoolscapes of two middle schools in South Korea and in Texas, and then carried out a cross-cultural comparison. They collected 58 and 118 signs, inside and outside the two schools, respectively, excluding the inside of the classrooms. They coded the signs according to five functions: navigational, informational, expressive, interactive and symbolic. There were similarities, but they also found differences in the number of informational signs (more in the Korean school) and expressive signs (more in the American school). The Korean school had several signs in English, next to Korean, but there was only English in the American school. The authors concluded that the schoolscape reflects important differences between the schools' ideologies in terms of being teacher centered in Korea versus student oriented in the United States. The signage transmits the national culture and its different values, which influence the identities of the students. Another example is provided by Dressler (2015) who investigated schoolscapes in an elementary bilingual German–English school in Alberta, Canada. Dressler does not actually use the term 'schoolscape', even though she cites Brown's work. She examined the functions of languages on signs and found that most signs were representational or regulatory. Dressler also investigated the decision-making involved in sign production. As it turned out, the teachers rather than the students were primarily responsible for sign making and for decisions on placement. Overall, English as the majority language was dominant in the schoolscape of this bilingual school and German had less visibility. The presence of multiple languages in the schoolscape was also investigated by Pakarinen and Björklund (2018) in a primary school in western Finland offering a Swedish immersion program and a Finnish mainstream program. In their case, the schoolscape showed the dominance of Swedish and Finnish, even though languages such as Latin and English were also taught, although those had a limited presence. The schoolscapes were seen to support shaping students' identities as Finnish and Swedish speakers. Straszer and Kroik (2022) studied the schoolscape of the Saami (Sámi) section of a preschool in Northern Sweden. They found that the Saami languages were well represented in the schoolscape, thus symbolically supporting indigenous rights. However, Swedish was also found to have a presence, dominating, for example, in communication with parents. In a similar study in two kindergartens in the north of Norway, Pesch *et al.* (2021) found that the schoolscapes gave due representation to various immigrant languages, whereas the local Sámi languages were hardly present, limited to some numbers and traditional symbols. It does not seem, therefore, that there is acknowledgement of Sámi culture as part of being Norwegian and the emphasis is on supporting the learning of the Norwegian language. Pesch (2021) compared multilingualism in the schoolscape of a kindergarten in Norway with one in Germany. In the Norwegian kindergarten, the schoolscape had various displays of multilingualism, whereas in the German case it was virtually

monolingual, except for a multilingual welcome sign. However, in both cases the schoolscape was almost the reverse of oral language use. In Norway, the Norwegian language was used almost all the time, in order to learn the language but in the German kindergarten, with the monolingual schoolscape, oral use was much more multilingual and dynamic.

Szabó (2015) focused on the reflection of language ideologies in schoolscapes. He investigated four elementary and one secondary school in Budapest for which he used the 'tourist guide technique' (see Chapter 5). Szabó related language ideologies about nationalism to differences between state and private schools and types of organizational culture. Laihonen and Todór (2017) presented a similar account of how signage is used in a school of a Hungarian-speaking village in Romania. For them, the schoolscape reflected issues concerning the relationships between local, national and global identities. Laihonen and Szabó (2017) placed these two studies by Szabó and by Laihonen and Todór in a wider debate about schoolscapes. They focused on language ideologies as reflected in schoolscapes and suggested analyzing them as displays of a 'hidden curriculum' about language values. Biró (2016) studied eight Hungarian minority schools in Romania for the ways in which the schoolscape reflected language ideologies and found similar outcomes to Laihonen and Tódor (2017).

A second set of studies focuses more on the relation between schoolscapes and language policies. Bagna and Bellinzona (2022) linked their work to Spolsky's (2004) framework of three dimensions of language policy (see Chapter 8). They investigated the written languages on the walls in 12 secondary schools in Italy, most of them with a high percentage of migrant students. The policy framework led them to make observations about the role of principals as gatekeepers who control what languages can have a presence on the school walls. Another interesting observation was that the schoolscape itself can play the role of a 'third teacher' alongside the class teacher and the learning materials or textbooks.

Language policy is also an important angle in several studies on the public display of languages in university environments. At the campus of the University of Tallinn, Saagpakk *et al.* (2021) found a surprising outcome because multilingualism was almost absent in the linguistic landscape, even though multilingualism had a strong presence in the courses offered and staff and students spoke different languages. The Estonian language dominated, with a limited presence of bilingual signs that included English and only exceptionally did signs have more than two languages. Similar results of predominantly monolingual environments (and language policies) were reported by Soler (2019) for universities in Tartu (Estonia), Riga (Latvia) and Vilnius (Lithuania) where these institutions had at most 2% multilingual signs.

Helm and Dalziel (2017) examined the policies of English medium instruction and internationalization at an Italian state university. They

found that the policies had no influence on the linguistic landscape of the university. English was barely visible, except for some specific learning spaces with a bit of bilingual signage. This stood in sharp contrast to the virtual space where English had a prominent place on the university's website. The authors propose that adding other languages would acknowledge international students as members of the university community.

The official language policy clashed with the actual display of languages in the linguistic landscapes investigated at different South African universities by Abongdia and Foncha (2014), Kadenge (2015) and Adekunle *et al.* (2019). According to the national language policy of South Africa, universities are obliged to consider the multilingual reality of the country. However, the three studies found that the linguistic landscapes were predominantly monolingual English. At the university studied by Abongdia and Foncha (2014), they only found one trilingual welcome sign, a limited amount of Afrikaans in the Afrikaans department and only a minimum of isiXhosa in the Xhosa department; otherwise, all signage was in English. Kadenge (2015) pointed out that isiZulu and Sesotho, two indigenous languages, were largely missing and similarly Adekunle *et al.* (2019) showed the lack of visibility of isiXhosa and Afrikaans.

Choi *et al.* (2019) investigated a Korean university that wants to compete on a global scale and has a policy in which English is the language of instruction in all classes and English is mandated for all signage on campus. They conducted interviews with international students who expressed a desire for more English because they had chosen an English-only university and were now confronted with some signs in Korean. In contrast, Korean students considered the English signage to be pretentious and just for the sake of representing a global brand. Their view was that the university campus should be similar to Korean society with a mixture of English and Korean signs. In another Asian context, Jocuns (2019) found that English was the preferred language in the linguistic landscape of a university in Thailand, at least when looking at signs related to environmental issues, where otherwise Thai was used. He included interviews with students in which they were asked questions on the meaning of different signs. The students offered globalization trends and the fashionability of English as explanations (see Chapter 5 for his walking interview method).

Ideas on translanguaging are at the center of some studies on schoolscapes. For example, Cormier (2019) used translanguaging as a framework to analyze schoolscapes in three French medium high schools in Manitoba, Canada. The study comprised a collection of 336 photographs of signs inside the schools and interviews with 37 Grade 11 students. Her results could demonstrate that the students did indeed read all the languages (English and French) in the signs they were shown, in

agreement with our suggestion in an earlier publication on translanguaging (Gorter & Cenoz, 2015a; see Chapter 6). As part of a multiannual project on translanguaging, Menken *et al.* (2018) documented changes in the schoolscape in various schools in New York (see also CUNY-NYSIEB, 2021). The participating schools moved from monolingual English signs to an increase in multilingual signage. The researchers found that the relatively simple step of making the students' languages visible in the schoolscape was a stepping stone for further structural changes in the bilingual education program. The interview findings were able to demonstrate how those physical changes in the schoolscape were related to shifts in the language ideologies of school leaders and staff, as well as in pedagogy, instructional practices and language education policies (Menken *et al.*, 2018).

Translanguaging was also a relevant concept in a study by Elola and Prada (2020), in which university students in a Spanish course were involved in a unit on linguistic landscapes. The students discussed moments of flexible language use, without explicitly using the term translanguaging, and they developed a critical attitude toward Spanish, language purity and the idea of a native speaker. Seals (2020) took translanguaging in the schoolscape one step further. She first carried out a one-year micro-ethnographic study at an *A'oga Amata*, a Samoan early childhood education center in New Zealand. There, she observed different ways of translanguaging in the multilingual schoolscape. Her next step was to actively help the teaching staff to create materials, among others, a poster and a storybook. Those resources were able to contribute to a more translingual linguistic landscape that supported the center's goal of encouraging multilingualism and multiculturalism. Thereafter, she analyzed the interactions with the modified linguistic landscape and observed how it reinforced translanguaging.

Schoolscapes were taken outside of the school context by Quam and Hamilton (2021) and by Vandenbroucke (2022), again bringing the concept closer to its use as a pedagogical tool. Quam and Hamilton (2021) examined a language summer camp located in an artificial German village in Minnesota, which immerses its participants in an entirely German environment. The authors, long-time teachers at the camp, applied a linguistic landscape lens to produce a quantitative inventory of all signs, as well as an ethnographic reflection on the various overlapping discourses related to education, community and health and safety in this artificial village. They conclude, unsurprisingly, that the signs can contribute to the learning of the German language and culture. For the author-teachers, the outdoor schoolscape became a revelation that made them reflect on further possibilities linking language learning and cultural practices.

Somewhat similarly, but in the completely different context of the city of Ghent, Vandenbroucke's (2022) study revolved around adult migrants who were learners of Dutch. Vandenbroucke conceived of

schoolscapes as ideological spaces that allow some languages to be used but not others, based on monolingual norms and ideas about multilingual diversity. She moved beyond strictly educational contexts and included public service situations, for instance, train stations and hospitals. Those spaces become institutional schoolscapes because adult migrants have to behave as language learners who need to practice Dutch in those spaces. In this way, she connected schoolscapes with the concept of 'new speakers' (O'Rourke *et al.*, 2015). Her approach is similar to the claims of Niedt and Seals (2021) that any public space can be a language learning space. We made that same connection ourselves in a recent study of the linguistic landscape in the San Martín market in Donostia-San Sebastián which also included the opinions of salespeople and their clients (Gorter *et al.*, 2022). To this study, we added an analysis of the multilingual environment of the market as a language learning space. Even though the primary aim of the signs was obviously not educational, we were able to demonstrate a potential for language learning of, among other things, new vocabulary and for raising awareness about the prestige of Basque as a minority language for both locals and visitors (Gorter *et al.*, 2021).

What we can take away from studies that focus on schoolscapes is that these linguistic landscapes inside educational institutions have characteristics that are obviously different from public spaces. Schoolscapes can reflect (or not) the use of languages, language policies and translanguaging, as well as being used for learning purposes.

10.3.3 Our study of the functions of signs inside schools

Some years ago, we carried out an explorative study of schoolscapes inside schools in the Basque Country. We reported this study in Gorter and Cenoz (2015b) and the following text is an updated summary of the part concerning the functions of signs on school walls.

The multilingual schools in this study teach Basque, Spanish and English, and we made an inventory of the signs similar to how we documented linguistic landscapes in public spaces (see Chapter 4). We took over 500 photographs of signs in classrooms, as well as in corridors, in other rooms such as the library and in the immediate surroundings such as the schoolyard. The teachers and students were not actively involved in the study.

As said before, an important difference we found between the linguistic landscape inside educational settings and public spaces is the degree of monolingualism and multilingualism. The schoolscape is evidently not a perfect reflection of the linguistic landscape in the community. We quantified the distribution of languages on the signs and found that a large majority were monolingual; the other signs were bilingual (about one in six) and only a few were multilingual signs with three or more languages. This outcome was substantially different from earlier findings in the

public space. These schools have Basque as a medium of instruction and thus it was no surprise that Basque was the most common language used on 70% of all signs when monolingual and bi/multilingual signs were combined. Spanish was used on 25% of all signs and English figured on 16%. The schoolscape is not only different from public spaces, but it is also not a mirror image of the language composition of the school population. This linguistic landscape of written language on display can be conceived of as a web of significance, where languages are used in different ways, conveying different meanings and with different aims in mind.

One of our research questions asked about the functions of written texts on signs. We started from the broad differentiation between informative and symbolic functions (based on Landry and Bourhis [1997]), but our analysis revealed the various communicative intentions of signs. As it turned out, we needed to make finer distinctions and we ended up distinguishing nine different functions. The functions are summarized in Table 10.1, and for each function we provide a short description and give one example.

Table 10.1 Functions of signs inside multilingual Basque schools

Functions	Informative/symbolic
(1) School management	Informative
(2) Classroom management	Informative
(3) Teaching language or subject content	Informative
(4) Teaching values	Symbolic
(5) Development of intercultural awareness	Symbolic
(6) Promotion of the Basque language	Symbolic
(7) Announcing collective events	Informative and symbolic
(8) Provision of commercial information	Informative and symbolic
(9) Decoration	Informative and symbolic

We first selected signs that were coded as *informative* and we distinguished three different uses:

(1) School management. The first function is of a more general nature. These are signs that inform students, teachers and visitors about locations. For example, the designation of the place for bicycles ('txirrinda leku' in Basque) (Figure 10.6) or the entrance of the school ('ikastolako sarrera'). Other signs indicate with names or numbers the classrooms, offices, library and other spaces.

(2) Classroom management. Signs that inform students about how to behave have mainly an informative function. These signs are intended to communicate to the students the do's and don'ts at school similar to rules of etiquette. The example in Figure 10.7 provides two requests for permission, which implicitly refer to norms of behavior. Other examples

Figure 10.6 Txirrinda leku - Bike place

Figure 10.7 Rules of behavior

of classroom management can be name tags on shelves to indicate the location of materials, or to indicate to which student a specific space belongs. We call this the function of classroom management.

These first two types of signs provide information for orientation. For teachers and students, these signs will be of little significance because they will already know their way around and know how they are expected to behave, but the signs are intended as guides for visitors, new students or trainee-teachers, and as reminders.

(3) Teaching subject content or language. One of the most obvious functions of the language used in signs on the walls is to serve as a teaching aid. The language on the walls of a classroom can be part of a lesson plan or used by the teacher. An example of the instructional use of language on a sign is given in Figure 10.8. The sign contains four short phrases that can be useful in the English language class.

In quantitative terms, a large part of the signs would be classified as having one of these three functions for providing information.

A second broad category of signs can be characterized as *symbolic*, and this type of sign is seen less frequently. Some of these signs can be useful as teaching materials. We have distinguished three functions that are, for the most part, symbolic:

(4) Teaching values. There are signs used to convey a pedagogical message to the students about values. A nice example was the slogan that states in Basque 'Denok langunak izan behar dugu' which can be

Figure 10.8 English phrases

Figure 10.9 We all need to be friends

translated as 'We all need to be friends'. Signs with such slogans are a constant reminder to students (Figure 10.9).

We found similar value-oriented or moral messages on display in various schools.

(5) Developing intercultural awareness. Some signs are related to the presence of immigrant children. An example is given in Figure 10.10. The sign reads 'Ongi etorri' ('welcome' in Basque) followed by the words for welcome in different languages (surrounded by the flags of the countries where the children are originally from, in this case Ecuador and Romania). The presence of these words on the walls is a daily reminder for all students of the diversity that exists among the school population. The

Figure 10.10 Ongi etorri' ("welcome")

Figure 10.11 'We need Basque, Basque needs you'

idea is probably to increase intercultural awareness among the children and the teachers.

There were several other signs with this function, for example, signs that reported on a field trip to another country or student work about different cultural celebrations.

(6) Raising awareness about the Basque language. Of special significance for schools in the Basque Autonomous Community is the minority language Basque. In our study, we came across several signs that refer to efforts to revitalize Basque and its culture. A clear example is the handwritten colorful expression 'Euskara behar dugu, Euskarak behar zaitu' which can be translated as 'We need Basque, Basque needs you' (Figure 10.11). These signs make students even more aware of the value of the minority language and are a constant reminder of Basque as an endangered language.

The last three functions we distinguished were signs that are not only informative or symbolic, but also both at the same time.

(7) Announcing collective events (non-commercial). On announcement boards we found signs about events that would take place in the town, such as a theater play. These included events specific for the promotion of the Basque language. The mural in Figure 10.12 announces the *Korrika*, a biannual relay run that spans a distance of about 2,500 kilometers across the Basque country (https://www.korrika.eus/en). Brown (2012) called this type of sign a reminder of the regional language as an enricher of the culture.

(8) Provision of commercial information. A small number of signs were related to commercial information from outside organizations or businesses. These signs are examples of advertising similar to those found in public spaces. However, the advertisements we encountered inside

Figure 10.12 Korrika mural

schools are not the same as those in a shopping street because almost all are related to education. There are examples of posters to prepare for commercial English language exams or about a group trip to learn English during the summer holidays (see Figure 10.13).

Figure 10.13 Viaje con monitor

(9) Decoration. The final function we can distinguish is decoration. The purpose of this type of sign is more aesthetic than informational or symbolic. Of course, the choice of these decorative signs may also provide some insight into the messages that are implied and they can be an indirect pedagogical device through which learning can be activated. Sometimes they are reproductions of famous paintings or museum announcements, but quite often the materials produced by the students are also used, as in Figure 10.14, to decorate the corridors.

We considered this list of nine functions in our publication to be open ended (Gorter & Cenoz, 2015b) and other studies could add more functions. In line with our study, Amara (2018b) investigated Palestinian schoolscapes in Israel. One of his research questions was similar to ours: 'What functions do the signs have?'. He collected data from six high

Figure 10.14 Decorative tree

schools in three towns where he took 1,216 pictures of signs while he walked with the principal using the 'tourist guide method' (Szabó, 2015; see Chapter 5). Amara identified the same eight functions as we did, but not the function of commercial information. In addition to what we did, he quantified the functions of the signs and found that 85% of the signs were informative, 10% were symbolic and 5% were both informative and symbolic. Amara concluded that schoolscapes clearly reflect the language ideologies of principals and teachers, and the importance these schools attach to reinforcing the Arabic language.

Another study that worked along the same lines was carried out by Bellinzona (2018) who also used our scheme of functions. In her study of the schoolscapes in seven upper secondary schools in Italy, she collected 801 photographs of signs. She added three more functions: 'commemorative plaques', 'certificates' and 'graffiti', although she does not include the function of 'language promotion'. These valuable additions confirm the idea that our list is open ended (see also Bellinzona, 2021). A further study worth mentioning is the development of a scheme of 22 categories by Savela (2018) (see Chapter 4). He included a function category called 'genre', for which he explicitly refers to the list of functions in our publication and he adds 'health and safety' as a possibility, which is another good addition to the list. The list of functions was expanded further with the results of a recent study by Karafylli and Maligkoudi (2022). They investigated the schoolscapes of Greek education institutions attended by refugees during the COVID-19 pandemic. In the article, they mention eight functions, including health and safety, but they rephrased this last function to 'raising awareness about hygiene rules and measures against COVID-19' (Karafylli & Maligkoudi, 2022: 9). Interestingly, the authors underline the importance of the visual elements of the signs as much as the text-linguistic.

Combining our 2015 publication with the functions proposed by Brown, Szabó, Amara, Bellinzona, Savela, and Karafylli and Maligkoudi, we present a new table with a list of 17 possible functions of signs in schoolscapes (Table 10.2).

Of course, this is still a provisional list and new investigations of schoolscapes may uncover new functions, but it can be a useful instrument for researchers at the beginning of their explorations of schoolscapes.

Laihonen and Szabó (2017) mentioned the systematic and insightful nature of our study, but they perceived it as a shortcoming that the categories were devised by us and were not based on interviews with teachers and students. They see dialogues with research participants as necessary to obtain an insider's perspective. This is clearly a methodological issue and, of course, we could have taken that route, but as (former) students and school teachers ourselves, and thus as insider experts, we wonder

Table 10.2 Functions of signage in schoolscapes

(1)	School management
(2)	Classroom management
(3)	Teaching subject content or language
(4)	Teaching values
(5)	Development of intercultural awareness
(6)	Announcing collective events
(7)	Decoration
(8)	Promotion of the X language
(9)	Provision of commercial information
(10)	Commemorative plaques
(11)	Use as historical artifact
(12)	Enriching national culture
(13)	Reflecting ideologies
(14)	Certificates
(15)	Graffiti
(16)	Health and safety
(17)	COVID-19 measures

if it would have resulted in different categories. We have now had the chance to take a careful look at all the pictures one by one and to reflect upon their functions, a time-consuming approach that would probably have been impossible with a teacher, a principal, a group of students or their parents.

10.3.4 Textbooks and learning materials

Linguistic landscapes represented in Latvian textbooks are the focus of Burr (2022). She argues that the inclusion of linguistic landscape signs in learning materials can deepen the knowledge of language and can raise the awareness of language diversity and multilingualism. She applied a quantitative content analysis of linguistic signs, categorizing them, among other things, by the languages used on the signs, and by the function of the sign in the textbook. She found that most signs were monolingual and a great deal were used for exercises, such as giving a description, storytelling or dialogue, although quite a few were merely illustrations. She analyzed a number of examples also qualitatively from a pupil's perspective. Finally, she describes the development of a textbook in Latvian titled *Ceļvedis pilsētu tekstu izpētē* [*A Guide for Exploring City Texts*] (Berra, 2020), which specifically offers possibilities for investigating linguistic landscapes through learning activities. In Burr (2021), she compared this guide to the e-learning guide for English language learners by Solmaz and Przymus (2021) on pedagogical concepts like authenticity, resourcefulness, connectivism and a focus on text genres.

In a similar way, Chapelle (2020) applied textbook content analysis to a collection of 312 images representing the linguistic landscape of Quebec in a sample of 65 first-year French textbooks, produced in the United States between 1960 and 2010. She emphasized the historical

dimension to investigate the role of those images in transferring the cultural narrative about Quebec because French signs there are an important symbol. She noted that the absolute number of images increased in the 2000s, but not the percentage of linguistic landscape images. She qualitatively examined 29 linguistic landscape images and showed how those differ in directness or indirectness of expression of (French) identity. She noted the degree of integration of the image with the surrounding text and found that the images do not contribute much to the teaching of the cultural narrative about Quebec. The images seemed irrelevant to pedagogical activities and did not contribute to multimodal meaning making.

Daly (2018, 2019) analyzed dual-language picture books using linguistic landscapes as a lens. She considered each picture book as a linguistic landscape or as a world that represents a public space. She examined the status of the languages, in which order they are presented, the relative size of the fonts and the information in each language. In her analysis of Māori-English picture books, she showed that more space was given to one language or the other depending on the pedagogical purpose. The outcome from a study of over 200 Spanish–English picture books was that Spanish had less space, but it was used for more functions and the books also increased the visibility of Spanish (Daly, 2018). In an analysis of 24 multilingual picture books, each having more than two languages, Daly (2019) found that there is a trend for one language to dominate, mainly English or French, because the language is given first, has a larger font and provides more information. Daly mentioned the implications this outcome can have for the development of young readers' attitudes toward languages.

Following the example of Daly, in their project, Gallagher and Bataineh (2019) analyzed the creation of translingual storybooks for Arabic–English bilingual children. The books were produced as part of an assignment by students in a teacher education program in the Emirates. The texts of the stories were written in Modern Standard Arabic, Emirati Arabic and English, and the languages were interwoven on purpose. It allowed the teacher candidates to experiment with translanguaging. The books were aimed at young emergent bilingual readers and the authors concluded that the storybooks reflect the reality of the users and can help to support cross-linguistic and cross-cultural understanding. Their project is an interesting combination of the perspective of linguistic landscape analysis in a student assignment working with ideas on translanguaging.

Learning materials are also the central focus in the publication of Xie and Buckingham (2021) who described the development of Chinese learning materials for beginners, based on a selection of commercial signage in Auckland, New Zealand. The materials aimed to enhance the decoding

of Chinese characters, identify tones, understand vocabulary and understand Chinese cultural features. Since the materials could be accessed on mobile devices, they could also be used beyond the classroom, e.g. at home or in the street. The materials further guided the students to explore the city using the linguistic landscape.

The analysis and application of linguistic landscapes in textbooks and learning materials is an area that has only recently obtained some attention from researchers, but it is likely that given its importance, more investigations will take place in the future.

BOX 10.2 THE TRADITION OF 'ENVIRONMENTAL PRINT'

The pedagogical use of schoolscapes is in some ways similar to a tradition of work known as 'environmental print'. The concept refers to 'non-continuous print… that is encountered in a particular context and fulfils real-life functions' (Neumann *et al.*, 2012: 232). The materials used in the approach include logos, words and labels found on signs, advertisements, packaging, etc., most of which could be seen as linguistic landscape items. This type of work is mainly related to the development of the literacy skills of young readers in English monolingual contexts. Often, the focus is on teachers who use environmental print as part of teaching early literacy, such as letter and name writing or numeral knowledge. Giles and Tunks (2010) summarized research into the role of environmental print in literacy development and the benefits that exposure provides for emergent readers (see also Neumann *et al.*, 2011).

We argue that there are some key differences between the use of environmental print for emergent readers and using linguistic landscapes for pedagogical reasons. Those differences are gradual and can be related to the targeted age group, the educational aims and the assumptions about language. Beginning readers are often, but not exclusively the target group of the use of environmental print. Its educational aim is usually to support the development of reading (and writing) skills based on 'real-life' materials from the child's environment. The most important difference is perhaps that an environmental print approach is primarily based on monolingual assumptions about learning English. In contrast, the pedagogical use of linguistic landscapes can take place in various educational contexts with any age group. As a rule, its use is not just aimed at increasing competence in one specific language but often at increasing language awareness and/or critical literacy skills. Projects normally deal with more than one language and with issues related to multilingualism, multiliteracy and diversity.

Bever (2012) explicitly tried to combine the approaches of environmental print and linguistic landscapes in a study about the bivalence of multimodal and multilayered signs of languages and scripts in Ukraine. She suggested that language and print awareness can be developed in both monolinguals and bilinguals. Chern and Dooley (2014) proposed another combination during an 'English literacy walk' inside and outside the classroom for teaching and learning about written English, in their case in Taipei, Taiwan. They acknowledge the root of their approach in activities for emergent readers in English-dominant societies, such as 'environmental print walks'. They present several activities for teachers that aim to encourage pupils 'to approach unfamiliar print as a fascinating puzzle and to practise reading familiar print' (Chern & Dooley, 2014: 114).

The study by Burwell and Lenters (2015) can further clarify the difference between an environmental print and a linguistic landscape approach. The authors worked together with teachers to implement a project called 'Word on the Street' in Calgary, Canada. Secondary school students (Grade 10) in English language arts classes went to explore the linguistic texts of their neighborhood. This has an obvious parallel with the project by Dagenais *et al*. (2009) mentioned in Section 10.2.3. The researchers demonstrated how the linguistic landscape can be part of multiliteracy pedagogy and how it encourages the critical study of multimodality and linguistic diversity. They did not focus on learning and teaching English *per se*, which would be in line with an environmental print approach, but more on deepening understanding of diversity and multilingualism, which makes it a linguistic landscape project in the first place.

10.4 Concluding Remarks

The task of schools is to prepare students for the real world and today this implies that students have to reflect a multilingual reality that surrounds them in the places where they live and go to school. The linguistic landscape items in public spaces offer relevant and useful possibilities for educational activities in the classroom and in the community. The studies discussed in this chapter show, either directly or indirectly, that the application of ideas from the field of linguistic landscape studies to educational contexts can be an effective and powerful pedagogical tool of great relevance for students, teachers and other professionals. As we have seen, some researchers have studied how materials from signage in public spaces were taken into schools in order to be used as learning materials, while others have investigated ways in

which students left the classroom to explore the linguistic landscapes in the outside world, or a combination of both. Some publications only contain interesting proposals of how the linguistic landscape could be applied as a pedagogical tool, but they are missing empirical evidence of the effects. Hopefully, more and more publications will begin to provide evidence of the positive effect of working with linguistic landscape exercises and materials.

Access to digital cameras in smartphones and tablets is widespread, and teachers can use these to give students an assignment on the linguistic landscape based on the principle of bring your own device. Linguistic landscapes are a pedagogical tool that can be relevant for different age groups, from relatively young children, including emergent readers, to primary school pupils, through secondary school students and up to university students, especially when being trained as teachers, as well as adult language learners.

The various research projects mentioned in this chapter cover a variegated set of themes about language diversity, social values, critical consciousness and language learning, among others. Linguistic landscapes offer great potential for critical reflection on societal issues in general and for enhancing knowledge on issues surrounding language among learners. In this chapter, we have demonstrated that the schoolscape provides a promising way forward to learn more about the signage that surrounds students and teachers on a daily basis and how the schoolscape can have pedagogical applications. In the case of education as an institution, the written words on signs can be related not only to a long list of functions of signs, but also to language awareness, multilingual literacy, multimodality, multilingual competence, language ideologies, social identities and issues of second or third language acquisition (Gorter, 2018). The research shows some differences in target groups at various levels of education (teachers, students or parents), the languages used on signs or the authors of signs (e.g. the students' work, teacher produced or commercially provided signage). Schoolscapes also contribute to the realization of educational aims (Malinowski & Dubreil, 2019). Sometimes, linguistic landscapes are created with the purpose of teaching something and can lead to active language learning. The spectrum of institutions investigated as schoolscapes that function as learning spaces beyond the classroom has been widened beyond schools and universities to include other semi-public contexts such as airports (Cunningham & King, 2021), museums (Loester, 2021) and hospitals (Mdukula, 2021). Niedt and Seals (2021) have argued that in any space the signs on display can be an opportunity to learn. More specifically, one could think of spaces such as theaters, community centers, markets and libraries or just walking down the street. In particular, this is because students can be made aware that the linguistic landscape provides a 'source of input into a broader language

repertoire, identities, knowledge and awareness' (Shohamy, 2019: 33). Education continues to be a productive domain for linguistic landscape studies which is attested by a flood of publications in recent years, some of which we mentioned in Section 10.1. For Shohamy (2019), education is even one of the five main themes characterizing the development of the field. This theme may receive a great deal of attention in the field of linguistic landscape studies; however, so far it has not received much attention in education research in general.

11 What's In the Names?

11.1 Introduction

Displaying names in public places is a crucial issue in any society due to their enormous historical, cultural, emotional and political significance. Using a name can lead to conflict and contestation because names can be a powerful way to express the identity of a group, the values of modernity or similar. Names of various types appear in fairly large quantities in linguistic landscapes. Street names and place names are two of the six sign types explicitly mentioned by Landry and Bourhis (1997: 25) in their widely quoted definition of a linguistic landscape (see Chapter 1). The other four types in the same definition – public road signs, advertising billboards, commercial shop signs and public signs – often include names as well. This can be a personal name, a brand name or a product name, also a building name or any other type of name. Therefore, it is not surprising that linguistic landscape studies can be relevant for onomastics, the field of study of the forms and origins of proper names. Onomastics can serve to expand the scope of linguistic landscape studies, and there can be some kind of two-way traffic (Puzey, 2016: 403–404). Onomastics is thus one of the adjacent areas of specialization that partially overlaps with linguistic landscape studies, in a similar way to, for example, studies of multilingualism or language policy.

Puzey (2016: 404–410) refers to four dimensions of possible cross-pollination between linguistic landscape studies and onomastics. First, linguistic landscapes are repositories of names, so they can be a source for the data collection of written forms of names, and this *namescape* can supply empirical evidence for current naming practices. Second, place names and street names are able to provide visible proof of a language policy (see Chapter 8). The official use of names on signage may be informative, especially in a minority language context. On the one hand, names can disregard or silence the existence of a language and, on the other hand, the use of a minority language in bilingual signs can be a sensitive and contested issue (see Chapter 7). Third, due to market forces, names of companies and products often lead to the commodification of

commercial names, of a language or of multilingualism itself. In addition, it may not always be easy to link specific brand names to specific languages (see below). Fourth, linguistic landscape studies have often focused on urban contexts, but the range can be expanded through a greater emphasis on rural contexts because traditionally most of the work on the study of names has been done in non-urban environments. In this chapter, we discuss the issue of attributing names to languages (Section 11.2), how modernity and tradition can be reflected in names (Section 11.3) and how social change takes place through street and place names (Section 11.4). Overall, linguistic landscape studies can lead to new insights into the role of names in urban and rural environments.

11.2 Attributing Names to Languages

Names are important in linguistic landscapes and a researcher using a quantitative approach may want to count the number of different 'languages' in the textual part of signs. However, using this approach it is important to determine the language to which a name belongs and to agree on the allocation. The designation can be quite problematic, complex and full of challenges. In the linguistic landscape literature, Edelman (2009), Tufi and Blackwood (2010), Ben-Rafael and Ben-Rafael (2015, 2019), among others, have tried to solve the problems of coding or attributing names to specific languages.

In her study of signage in Amsterdam, Edelman (2009) discussed the issue of names as a special category of words. She analyzed the consequences of including or excluding proper names, such as shop names and brand names. She found that in a sample of 200 signs, 40% consisted of one or more names. She explored both including and excluding proper names and, as it turned out, inclusion of the proper names in her Dutch context implied that the linguistic landscape was deemed more multilingual because of a high proportion of names in English or other languages. Tufi and Blackwood (2010) took a different angle in their effort to solve the problem of attributing a brand name to a specific language. Among the challenges posed by the classification of such signs, they consider issues of connotation, the link to a particular state and the international character of many well-known brand names. In their study of cities in France and Italy, they ran into differences in coding between different researchers. For example, the fashion label 'Diesel' was perceived as Italian in Italy but in France as belonging to the code 'international' or non-language, and only later they found a link with a German proper name (Figure 11.1).

Attributing a trademark to a specific language or by default to English, they argued, may result in distortions in a quantitative approach to the linguistic landscape. Tufi and Blackwood (2010: 208) suggested that 'social representation', a concept from social psychology, can provide

Figure 11.1 Diesel sign

a solution. Thus, people who read the sign could be asked which language is represented by specific trademarks and brand names to solve the problem.

Ben-Rafael and Ben-Rafael (2015) take another approach in their study of the global cities Berlin, Brussels and Tel Aviv. They were not satisfied with the solutions of Edelman or Tufi and Blackwood because they wanted to avoid the allocation of certain types of names to a language altogether. For that reason, they proposed a separate category of 'big commercial names' (BCNs), by which they mean 'names of firms, shops or boutiques that stand mostly without any other specification' (Ben-Rafael & Ben-Rafael, 2015: 24). For them, this type of name does not belong to any language in particular. It is somewhat similar to what Tufi and Blackwood (2010) at first called the category of 'international' or 'non-language' names, but were not happy to maintain. Ben-Rafael and Ben-Rafael (2015: 33) argued that you cannot exclude these names from the analysis, as Edelman (2009) did, because 'they amount to a substantial part of LL in some spaces, and ignoring them ruins LL analysis'. For them, BCNs are a global code that can be found across the world and the category fits with their theory of 'multiple globalizations' (see also Ben-Rafael and Ben-Rafael [2016] on the 'two faces of globalization' in Berlin). Ben-Rafael and Ben-Rafael (2019) apply the category of BCNs widely when they include an additional five world cities (London, Paris, Addis Ababa, New Delhi and Tokyo). One of the problems of BCNs seems to be that they are not well defined. On the one hand, the authors include BCNs that are only known nationally or locally, which makes the category much wider than globally recognized names. They define BCNs as 'tokens that belong to no regular language, have no grammar nor semantics, and comprise just names or icons designating given goods and businesses' (Ben-Rafael & Ben-Rafael, 2019: 12). How BCNs can be distinguished from English names (or from French, Italian or Spanish names) is not problematized. Among the scarce number of examples they give, some seem to be ambiguous or at least multi-interpretable, such as Lloyds, Norwoods, Kingsley's, and even the authors themselves refer to those examples as 'big firms carrying BCNs

- many of them English names' (Ben-Rafael & Ben-Rafael, 2019: 87). BCNs are used as an indicator of globalization, which is somewhat similar to the global consumer register that Jaworski (2015b) refers to as 'globalese' (see Chapters 6 and 12).

Pošeiko (2019) analyzed commercial names from the perspective of glocalization, a concept that refers to the co-existence and interaction of local and global elements. She has some interesting statistics on the prevalence of names and, in particular, commercial names in nine cities in the three Baltic States. Of her sample of over 7,300 signs, 31% are identified as name signs, the largest category. Among those name signs, commercial signs dominate with 91% of the total, whereas the other 9% are names of public institutions, schools, churches, etc. This outcome shows the importance of the private sector in shaping linguistic landscapes. She can allocate the names to a total of 26 different languages, which points to linguistic diversity, but at the same time almost 80% of all name signs are in one of the state languages Estonian, Latvian or Lithuanian. The use of English in mixed names, for example through internationalisms, is interpreted by Pošeiko as a process of glocalization in which the global influences the local and the other way around.

The problems of allocation to a specific language notwithstanding, and without a final solution at hand, many studies have investigated shop names, brand names and other names. Two recurring themes in such studies of names in the linguistic landscape are on the one hand, what names stand for, and on the other hand, the effects of a name change.

11.3 Modernity and Tradition in Names

Place names can have a symbolic dimension, and so can the choice of a name for an establishment, such as a shop. For example, names may be used to express modernity or tradition. One could argue that commercial names can be both symbolic and informative at the same time because a name can indicate the location of a place for customers, attract attention to an establishment, add to its recognizability and distinguish it more easily from others. The languages and scripts used for shop names and other names along with their significance are a recurring theme in studies that look into their symbolic associations. For example, in Athens, Nikolaou (2017) found that almost half of the shop signs were written in Roman script, 40% in Greek script and 14% used a combination of both scripts ($n = 621$). Even though Greece is officially a monolingual country, his results showed a strong presence of multilingual signs with different patterns of visual prominence for English or for Greek. English was more often preferred for the name of a shop, while Greek was more frequently used for practical, secondary information (Figure 11.2).

Nikolaou(2017: 175) concluded that it was not so much tourism that accounted for the presence of English, but its use as a marker of

Figure 11.2 Prominence of English and practical information in Greek (Athens)

'modernity, sophistication, and elitism'. In a similar study in Mingora in Pakistan, Nikolaou and Shah (2019) found that most shop signs had a combination of English and Urdu, using two writing systems. The two languages have co-official status in Pakistan, but English was found to be visually more prominent. English is associated with cosmopolitanism and with the more powerful elites, whereas Urdu, the mother tongue of only 7.5% of the population, serves as a symbol of national identity. Notwithstanding the visual prevalence of English, the authors see shop signage as a kind of balanced written bilingualism.

Related findings came about in the study by Nofal and Mansour (2014), who investigated the attitudes of 90 shop owners toward Arab names and English names on shop signs in Amman, the capital of Jordan. The shop owners showed positive attitudes to foreign names, especially English, considering them more attractive than Arab names. At the same time, they had positive attitudes about Arab names because Arabic was a source of pride for them. The authors argued that English marks modernity and Arabic is the language of ethnic identity for the shop owners. The conclusions of Amara (2019) were similar in his study of shop names in three Palestinian Arab towns and three mixed cities in Israel. He collected pictures of 848 shop names and he interviewed six shop owners about the 'intended function' of their shop name. He found 70.9% Arabic shop names, 9.3% in Hebrew and 19.8% 'foreign' (mainly English). Amara (2019: 272) observed 'Many shop owners opt for shop names in languages that are not familiar to customers'. Hebrew was linked to the economy and modernity while the use of foreign names, mainly English,

was symbolically related to the quality of products and perceived as modern, attractive and fashionable. Reasons given for choosing an Arab name were identity and tradition. For linguistic landscape research, Amara (2019: 274) argued that 'shop names are… important to focus on… as a separate subject of study due to their symbolic function' (see Chapter 9 on reasons for using English).

Names also played an important role in related but rather different cases of name and sign changes studied by Peck and Banda (2014). In a longitudinal qualitative study of the neighborhood of Observatory in Cape Town, South Africa, the authors point to different ways of transformation and appropriation of this space through the arrival of immigrants. Their examples concern claiming an Asian (Chinese and Thai) authentic identity through signage for a restaurant, an African image of an internet café, the open celebration of Africanness for a club and the contrasting case of a Somali shop owner who due to violent xenophobic attacks was hiding his identity through general global signs.

In a study in Macao, Zhang and Chan (2017) contrasted names of casinos with traditional shops. They discovered that the casinos used English as something exotic, and they also turned the letters into icons to give English a foreign, mysterious or friendly appearance. In contrast, Chinese names were most common for local shops. These authors see the use of foreign language names as a feature of global modernity. In an extension from shop names to residential buildings in Hong Kong, Jaworski and Yeung (2010) demonstrated that those names had symbolic meanings. The names of residential buildings could be framed as indicating distinction, prestige, elitism and a sense of luxury by using English as well as European languages such as French, Spanish and Italian, in particular in a higher class area. Building names through a linguistic landscape lens were again the focus of Tan (2011). His study took place in Singapore where such names have to be approved by the Street and Building Names Board. He collected over 2,500 names from an official directory and found that English predominated, as well as some use of French, Spanish and Italian, a finding similar to Hong Kong. The use of these languages for names in private signs goes against the official policy of multilingualism in Singapore, which includes English, Mandarin Chinese, Malay and Tamil. In referring to Tan's study, Hult and Kelly-Holmes (2019) interpreted the use of European languages as commodification or linguistic fetish. This would also apply to the examples from the study, again in Singapore, by Ong *et al.* (2013) who focused on mixtures or blends of English and French, or pseudo-French in the names of food shops and beauty parlors. One example was the name 'Saybons French food factory', where 'saybons' comes from the French 'C'est bon' (It's good) and a quasi plural 's' was added in order to stand out and for ease of pronunciation. For these authors, the names indicated French prestige and quality and were part of a French linguistic fetish that can be seen in many countries.

Shang (2020) wanted to find out the preference for Pinyin or for English on street signs in China, based on a random sample of 10 street name signs from 31 capital cities and municipalities ($n = 310$). The state regulations prescribe that street signs must be written in simplified Chinese on the top and Pinyin (Romanized Chinese) below, creating a Chinese–Pinyin bilingual standard. At the same time, however, English is widespread in linguistic landscapes in China (see Chapter 9) and bilingual Chinese–English street names are promoted by authorities in some larger cities. The results showed that on all signs Chinese was prominent and on top, but 75% had Pinyin and 25% had English as the second language. They also found a few trilingual signs. In terms of attitudes, they found rather contrasting ideologies regarding the value of using either Pinyin or English, but no clear majorities in favor of one or the other.

The linguistic aspects of names in Bangkok were the focus of the work of Prapobratanakul (2016), who provided an extension of the classic study by Huebner (2006) (see Chapter 2). She analyzed the names of 165 shops and interviewed 10 shop owners in the Si Yan market. She looked into the mixing of English and Thai script, lexicon and syntax. The shop names were predominantly Thai, but with a strong presence of English in the signs, although, as she found, the shop owners were often not aware of the influence of English. She concluded that the hybridization of Thai and English dates as far back as 30–40 years and runs very deep. In Bangkok's Chinatown, Wu and Techasan (2016) found that the proper names of shops were based on the Teochew (Chinese) dialect spoken by the shop owners and that the Thai or English names were transliterations of the dialect (see Chapter 6 for this Chinatown).

As part of their study of storefronts in the *Quartier Gare* (station neighborhood) in Strasbourg, France, Bogatto and Hélot (2010) give special attention to the use of first and family names as expressions of identity. They present an example where a Turkish family name is used for the shop name but the rest of the text is in French. The name does not provide a message in Turkish, but identifies what the shop stands for. The authors report that they expected this in the survey area, but not in other parts of Strasbourg, where Turkish owners might have hidden their name under a less stigmatized identity (see Chapter 9 for their findings on English).

Looking over these studies, we see how they all show the diversity and complexity of language practices in the use of names, in particular shop names. Overall, the studies demonstrate that in the global linguistic market, names using English dominate. This is in line with many studies on the spread of English that we discussed in Chapter 9. It is interesting to note that Bagna and Machetti (2012) claimed that their study demonstrates that Italian, or pseudo-Italian, comes second place worldwide. This is based on a study of 152 brand names in 15 countries, mainly for clothing shops such as Gucci and Armani and on 205 menus

from (Italian) restaurants in 21 countries. The presence of Italian was related to its visibility and symbolic values. An interesting observation is that these Italianisms create opportunities for language learning (see Chapter 10).

11.4 Social Change through Place Names and Street Names

In their seminal article, Landry and Bourhis (1997) discussed the informational and symbolic functions of the linguistic landscape at length (see Chapter 3). A place name in particular has a function to inform as it refers to a specific location, but at the same time using a place name in a specific language (or not) can be symbolically loaded. The way a place is referred to or a proposal to change a name can be hotly debated or openly contested. For example, putting a minority place name on a sign may be perceived as an act of renaming the place itself. Moriarty (2012) illustrated this effect in her discussion of the 'the Dingle naming debate'. This refers to an ideological debate surrounding a change in the name of a small town in the southwest of Ireland from a bilingual English–Irish name (Dingle – An Daingean) to its monolingual Irish version. Moriarty analyzed texts that were posted on a public wall on the main street, including newspaper articles and letters. The bottom-up written comments criticized the official policy. She argued that linguistic landscape research provides an important way to analyze language ideology and can uncover power relationships between languages in contact. For Moriarty (2012: 86), the linguistic landscape becomes 'a fluid space that is socially constructed and constantly being contested and renegotiated'.

In our own work in Donostia-San Sebastián, we analyzed the replacement of all street signs by the local authorities in 2009. On the new signs the preferred option was Basque only, in contrast to the former policy of strict bilingualism. We concluded that in this new configuration, 'the minority language is no longer placed on equal footing with the majority language, but it is given preference where possible' (Gorter *et al.*, 2012b: 159). (See example of the changes in Figure 6.4.)

Although Basque and Spanish are typologically unrelated languages, there are ways to use Basque names that can be understood, especially since most streets bear the proper name of a person or another town. Usually, those streets are referred to informally in oral use only by this proper name without the addition of the words 'street' or 'avenue'. The new signs reflect this habit by using a larger font for the proper name and adding in smaller letters the Basque word 'kalea' (which is similar to 'calle' in Spanish). The example in Figure 11.3 illustrates the format. The former sign would read 'Calle de Arrasate', while the new sign has 'Arrasate kalea'. The resulting sign is comprehensible for most passersby. For the local authorities, street signs can be an important form of top-down language policy because they mark the territory. However, in

Figure 11.3 Arrasate kalea in Donostia

terms of absolute numbers, street signs only make up a small part of all signs in commercial areas; in contrast, in residential areas they may be among the few visible signs.

Not everyone always agrees with the official signs the government puts up and one common way to express disagreement is by painting over a sign. Here, we provide an example from Donostia-San Sebastián where an activist painted over just a small part of a sign that carries the name of a neighborhood (see Figure 11.4).

Figure 11.4 El Antiguo: contested sign

The name of the neighborhood in Spanish is 'El Antiguo', but the obvious Spanish part 'el' has been painted over and the form 'Antiguo' remains legible. The front and the back of the sign are painted over in the same way. This is a form commonly used in spoken Basque, but the correct spelling in Standard Basque would be 'Antigua'. Perhaps the person who painted over the sign did not know this, thus the resulting form is neither correct Spanish nor Basque.

Järlehed (2017) approached street name signs as a genre in the linguistic landscape, similar to genres such as postcards and tattoos. Genres are distinguished by a combination of semiotic resources, such as placement, distribution, shape, material, color, linguistic content, typographic and other graphic elements. This combination makes street name signs recognizable. Governments manage street name signs, and they can have functions for commemoration and commodification. Järlehed applied the genre approach to new street name signs in Galicia, where the signs changed from monolingual Spanish to Galician. In contrast, in Pamplona (Navarre, the Basque Country), the signs in use today are a sort of unequal bilingualism. The name part is in Spanish and only the designation 'street' (calle/kalea or similar) is bilingual, although the typography is typically Basque. As said before, we observed a similar shift in Donostia-San Sebastián, but there priority was given to Basque (Gorter *et al.*, 2012b).

A similar, but much stronger version of a battle over place names arose in the bilingual region of Carinthia (Austria). Rasinger (2014) analyzed the dispute about topographic signs (the so-called *Ortstafelstreit*). A years-long battle over the use of the Slovene language on signs became increasingly violent. The Slovene minority community wanted to make its language more visible, but clashed with the ideology of monolingualism of the German majority. Even after the central government regulated bilingual signs, the conflict over place names continued at the regional level.

The choice between using not only place names, but also street names or other names in a minority language or in the dominant language has been a regular issue of conflict in many areas. Some examples of such controversies on place names can be found in Gorter (2021) in Friesland and Hicks (2002) in Scotland. A rather extreme example was provided by Puzey (2011, 2012b) in his investigation of place names on road signs in Norway, Scotland and Italy. In one case, a road sign written in Sámi was shot with a firearm due to a 'disagreement' between the minority and the majority (Puzey, 2011).

The outcomes of the studies mentioned above were confirmed by Raos (2018) in a comparison of all European Union member states. He investigated policies with respect to bilingual place and street names for minority languages. He described the details of the policies for all 28 countries and found a diverse pattern of legal provisions and practices.

In summary, at the time of writing, bilingual signage was allowed in 24 of 28 EU states, and 4 states opposed minority languages on these signs (Bulgaria, Greece, Latvia and Lithuania). Officially bilingual states (Belgium, Cyprus, Ireland and Luxembourg) obviously allowed them, as did the four states that have constitutional provisions (Austria, Croatia, Slovenia and Spain). The remaining 16 states applied a mixture of minority rights, language laws and regional or local statutes. His conclusion was that 'bilingual street signs in Western Europe tend to be driven by regional governments and show lots of inconsistency… In contrast, in Eastern Europe, one is more likely to find strict rules and constitutional guarantees for bilingual signage' (Raos, 2018: 13).

The change of geographic names in South Africa, after the transition to a post-apartheid society, was studied by Du Plessis (2009). He emphasized language visibility, but the authorities maintained the principle of 'one-entity-one-name', which led to monolingual names in African languages and even more so in English. This went against the official state policy of using two official languages as a minimum. Du Plessis (2009: 228) found that 74.5% of new names were in an African language only, thus the basic policy remained within the monolingual tradition. In another study, Loth and Du Plessis (2017) collected a large dataset (n = 5,773) of the linguistic landscape of nine towns in one municipality in the Free State province. The study specifically focused on ergonyms (i.e. proper names of institutions, businesses and public projects), but excluded brand names and toponyms because, as the authors argued, there cannot be a linguistic choice for those. The ergonyms constituted 10.1% of all signs. English was present in 81% of all ergonyms and clearly dominant. Afrikaans was used in 26.7%, whereas African languages, such as Sotho and Xhosa, together were used for 12.5% of the ergonyms. The authors saw a strong discrepancy between the visible language and the spoken language of the population, observing a preference for English, with other languages functioning as add-ons in ergonyms. Their final conclusion was that 'ergonyms in this case study have a homogenising effect (toward monolingual English) on the language visibility patterns' (Loth & Du Plessis, 2017: 25).

11.5 Concluding Remarks

The studies mentioned in this chapter provide examples of investigations into the relationship between the use and regulation of names in the linguistic landscape and their monolingual or multilingual nature. The methodology of linguistic landscape research can be applied in onomastic investigations and, at the same time, the onomastic dimension in linguistic landscape studies can be expanded. All in all, the study of linguistic landscapes can lead to new insights into the role of names in the environment. In the introduction, we mentioned four dimensions of a bidirectional

relationship (Puzey, 2016). The question could be posed, how linguistic landscape studies can be distinguished from onomastics, the field of name studies. Our answer is that there are no definite boundaries and we can only draw blurred demarcation lines. We have emphasized the diversity of languages because studies that focus on names or name changes in one language only, are closer to onomastics as a specialization. In an effort to find an answer to the demarcation from onomastics, other questions can be asked: What is the aim of a specific study, what is the main interest of the researcher or what are the research questions? A researcher who wants to contribute to our understanding of the language on display in public spaces and is asking questions, for example, about the characteristics of signage, the use of written languages or experiences in urban landscapes, has different aims than a researcher who wants to observe and analyze names or explain why certain names have been chosen.

Linguistic landscape studies and onomastics can mutually benefit from each other (Rose-Redwood *et al.*, 2018). Onomastics is a good example to reflect on the open and fuzzy boundaries of linguistic landscape studies. It is obvious that linguistic landscape studies can often be placed at the intersection of more than one disciplinary approach because it is a field that has taken freely from other disciplines as we discussed in Chapter 3.

12 Expanding the Field of View

12.1 Introduction

Over the years, we visited many cities around the world and whenever we walked the streets, we were always fascinated by the linguistic landscapes. We have observed (and photographed!) innumerous signs in a multitude of languages. On the one hand, we saw a great deal of diversity in the public display of signage, but at the same time we noticed a trend toward homogeneity. This trend becomes especially clear in main streets and in shopping malls because such places are full of big commercial names, international chain stores, similar ethnic restaurants, bars and shops, as well as tourist-oriented information (see Section 12.4.2).

In the preceding chapters, we have made an effort to present a panorama of a selection of the main attributes and outcomes of the myriad of research studies that have been carried out over the last few years. We wanted to emphasize a limited number of core themes and, at the same time, grasp the expanse of this ever-widening field. Our all-encompassing overview shows how various approaches offer relevant insights into the signs that surround us. The field of linguistic landscape research has produced ground-breaking and fascinating perceptions of multilingualism and many other topics in societies around the world. This means that the studies have increased our knowledge of how languages are displayed in mainly urban contexts and the practices of different groups of language users, while they have enabled researchers to enhance our understanding of a range of social issues. Signs in cities and other places are out there to be deciphered and interpreted by linguistic landscape researchers who wish to advance the investigation of various dimensions of language use in urban environments and beyond. Taken together, the studies have resulted in relevant new insights which could have implications for different social groups or for society as a whole.

In this chapter, we reflect on the characteristics of the young field (Section 12.2) and then briefly look into or just mention various topics that have been included in linguistic landscape studies, among those, borders, gentrification, gender and graffiti (Section 12.3). We also offer a

forward look into the field by offering some reflections on recent developments and trends (Section 12.4) and we conclude with some final views (Section 12.5).

12.2 A Young Field

Some language groups are privileged because their language is more visible than others, while other groups are even denied access to visibility. Dominant languages have high visibility, which is often taken for granted, whereas minority languages may obtain more limited visibility even after a struggle, with other languages not being seen at all. The signage on display can reflect the identities and ideologies of specific social groups or institutions but not of others. Evidently, the display of a language in public spaces can be a hotly disputed issue among different language groups. In the preceding chapters, we have seen, time and again, in various studies that multilingual cityscapes are the result of developments in language policy, sign design and production.

Public signs are designed and produced intentionally and their display serves a purpose. This is a dimension that linguistic landscape researchers can look into, for example, by investigating the motives of sign producers, as well as their attitudes, ideologies and identities. The placement of commercial signs is usually driven by market considerations, and the authors of those signs have invested time and effort in designing and producing them. Clearly, a well-designed and well-placed sign can be worth a good deal of money for a business and thus becomes part of economic forces and power relations.

In an urban context with a high density of signs it seems impossible to process all of them. In contrast, one large billboard on a rural road will be almost impossible to ignore. People perceive and process the information presented to them in different ways. A sign can have a direct impact on the behavior of people, for example, when a sign gives directions, contains a warning or prohibition or, as is mostly the case, when a sign tries to convince people to purchase a product or obtain a service. People can make a conscious choice to follow the message of the sign or just ignore it.

As a relatively young field, linguistic landscape studies have flourished in the past decades. As Blommaert (2013) argued, linguistic landscape research has the potential to deliver interesting reflections on the central challenges of sociolinguistics and applied linguistics. Many linguistic landscape studies assume that signage does contribute to how the sociolinguistic context is perceived and constructed. The status of a language will be influenced by how it is represented on signs (or not). The visibility of a language, or lack thereof, can influence the oral language use of passersby. However, even though the field has developed rapidly, it is still young and therefore has to mature further, especially theoretically

and methodologically. Innovations, transgressions and experiments are needed, but they can never be an excuse for a researcher not to follow accepted general methodological practices. One important element of such practices is that researchers should try to make the outcomes of their study transparent, only as a minimum verifiable by others (Gorter, 2019a).

At the time of editing the book with the title *Linguistic Landscape: Expanding the Scenery*, our aim was to broaden the field because studies can include 'everything in the public space, including people' (Shohamy & Gorter, 2009a: 8). The reason is that heterogeneity is 'a built-in characteristic of the field' (Gorter, 2013: 202), and we are convinced that it cannot and should not be avoided. On the contrary, we think that it can help to strengthen the field and should be recommended. We agree with Shohamy (2019) who argued that the community of linguistic landscape researchers does not want to define the boundaries on what is to be included in this field of studies. At the same time, one can notice that certain core themes are repeated over and over again, and that there is a process of crystallization around them. The field has grown in size and scope, but there is a central part of the field that focuses on 'patterns… of languages in public spaces'. This formulation comes from the aims of the *Linguistic Landscape* journal (Shohamy & Ben-Rafael, 2015: 1; see Chapter 1 for the long version). In this core, the focus on languages on display is maintained, with ever-widening circles. The core themes of the field which we have tried to identify in this book are multilingualism, minority languages, the spread of English, language policy, educational context and names, including theoretical pluralism and innovative research methods. Other researchers may want to add their own themes to the list, and may also prefer to emphasize different aspects. We are convinced that this selection of themes will persist because they combine to define linguistic landscape studies as an academic field, and they engage with some of the challenges of the 21st century. Sharma (2021: 23) concluded, in line with our idea, that the study of the linguistic landscape is a 'useful tool for understanding larger social processes of global mobilities, economies, and cultural flows'.

As was observed before, linguistic landscape studies furnish important additional tools for research, present new sources of data and provide different reflections on existing theoretical ideas. The results of linguistic landscape investigations can 'offer fresh perspectives on issues such as urban multilingualism, globalization, minority languages, and language policy' (Gorter, 2013: 205). A new topic can be dealt with in one incidental paper, but sometimes interest may be sparked among a larger number of researchers. For example, in the concluding article of the special issue on education, Gorter (2018) presented a summary of trends in the study of schoolscapes and applications in education. He was only able to find a limited number of studies, but in Chapter 10 we noted that

in a short span of time of perhaps five years, this theme has drawn a great deal of attention and numerous studies have been published.

In Chapter 3, we emphasized the different disciplinary backgrounds and specializations of researchers who have contributed to the field. Their premises and assumptions about core issues, key concepts and fundamental perspectives may diverge. They might also have competing or contrasting ideas about which direction the field should take or which research questions are the most interesting to answer.

The field of linguistic landscapes is growing exponentially and has become a specialization within disciplines such as applied linguistics, sociolinguistics and language policy studies. It is unlikely to evolve into a new subdiscipline on its own, nor will a new coherent theory of linguistic landscapes be developed in the near future. There is no one dominant theoretical framework or one canonical research method. The field may continue to move in different directions (perhaps even take a new turn or produce another wave of publications), but thus far there are more centrifugal than centripetal forces. The field does not seem to coalesce around one theory, method or theme, but rather there is a common shared interest among researchers in the display of 'language' in public spaces.

Progress has been made in the field, but we can also conclude that the complexity of the display of languages still leaves many questions unanswered. We need to further reflect on terminology and to clarify concepts. Here, we discuss one example. In Chapter 7, we discussed the concepts of commodification, fetish and tokenism in the context of minority languages, and we mentioned studies in tourist sites (see also Chapter 9 for the context of English). However, perhaps we can reconsider those notions and think about the introduction of the concept of *touristification*, as used by geographers, among others (Ojeda & Kieffer, 2020). The online corpus of linguistic landscape studies (Troyer, 2021) shows that 'tourist' and 'tourism' are highly frequent terms which were used in over 200 different publications, but the term 'touristification' does not appear in the corpus. The concept of touristification is, as usual, not clearly defined in the literature, and Ojeda and Kieffer (2020: 144) mention that this demonstrates 'how tourism transforms the destination areas in global spaces' and how it 'implies processes of change in the socio-economic dynamics and the components of the landscape and environment of a territory'. The definition obviously includes the display of languages in places visited by tourists. As authors, we live in a city that has experienced a substantial increase in tourism over the past 10 years (except for the two years of the COVID-19 pandemic) and we have observed changes in signage, not directly related to commodification, in our case of Basque and English, but to adaptations directed at tourists, for example, multilingual information signs and advertisements

in multiple languages. This process has various consequences for a host society in which changes are made more for tourists than for residents. Social changes brought about by tourism and adaptations in the linguistic landscapes can be intended to make a place suitable for tourists and visitors. Saying that English is used for tourists is stating the obvious, but how and which other languages come into play may advance the analysis. Perhaps touristification is a more precise concept, since it does not necessarily directly link to economic or profit-making goals, but relates to the provision of (language) services and information to visitors of a place.

Tourism is just one example of a topic that is the focus of several studies and in the next section we continue our discussion of other topics that have been addressed in linguistic landscape studies. Our list of examples has a somewhat eclectic character and is not based on a systematic in-depth literature search.

12.3 Expansion of the Range of Topics

As we have repeatedly stated throughout the book, the field encompasses a great diversity of perspectives and one of its important features is an endless series of newly arising topics. Its interdisciplinary character encourages linguistic landscape research to be open to new directions and innovative approaches. We have dealt with six main themes in separate chapters, but each theme covers a wide range of contexts, different perspectives and a spectrum of topics. We have also incorporated theories, methods and outcomes of studies on specific topics like Chinatowns, globalization, power relations, language ideology and protest movements, among others. Research in this field covers an increasing range of issues and investigates more and more social and geographic contexts.

The diversity in this field can be further illustrated, for instance, by looking at the contributions in the *Linguistic Landscape* journal. Just by taking the topics of the five most read articles in July 2022, we can observe that these range from survey area selection (Soukup, 2020), kindergartens in northern Norway (Pesch *et al.*, 2021), cosmopolitan English in Tokyo's gay district (Baudinette, 2018), social class and multilingualism (Lu *et al.*, 2022), to authenticity in Vietnamese landscapes in Manchester (Nguyen, 2022). Obviously, the topic of each of those five articles is directly or indirectly related to the main themes discussed in the preceding chapters.

Looking back over the last decade, we can observe that new topics are constantly emerging and some are discussed in the next section. We first discuss in some detail topics that have received a substantial amount of attention, including borders, gentrification, gender and sexuality, and

graffiti. Then, we briefly mention some other topics that could possibly attract more attention from researchers in the future.

12.3.1 Borders and borderlands

A linguistic landscape can be seen to publicly mark the borders of a territory where a language or languages are spoken. In their seminal publication, Landry and Bourhis (1997: 25) called the informational function of the linguistic landscape 'a distinctive marker of the geographical territory'. Language borders and state or other administrative borders are often thought to coincide, although in practice this is not always the case. The linguistic landscape can possibly inform us about the extent to which overlap or separation exists. In recent years, an increasing number of studies have focused on border towns and borderlands, often trying to demonstrate the distinctive linguistic landscapes related to differences in language use on both sides of a border or to political, ideological and social changes.

In our investigations in the Basque Country, we have included the areas north and south of the French–Spanish border, although we have not published the results before. When crossing this state border, the differences in signage are rather striking. In an anthropological study of the same area, Bray (2000: 2) observed 'the communities on either side of the frontier have markedly different cultures, reflecting the dominant influences of the state of which each forms part. In parallel, however, both share a common Basque cultural and linguistic heritage'. In Chapter 7, we mentioned the study by Leizaola and Egana (2007, 2012) who observed more French and a higher density of signs on the French side of the border. In a conference paper, Gorter (2016b) compared the two Basque towns of Hendaye/Hendaia and Irun, located at the state border. The study showed the importance of a linguistic landscape perspective for the interdisciplinary field of border studies (Wilson & Donnan, 2012). Observing the signage, it could be seen that on both sides of the border Basque was used substantially. This testifies to changes on the Spanish side of the border since the return to democracy in the late 1970s, as well as some gradual changes in more recent years on the French side. However, the multilingual patterns of the signs are systematically different. On the French side, the French language is always on top and French is dominant. Official signs are bilingual French–Basque. In some multilingual signs, English comes before Spanish. On the Spanish side, there is more variation; bilingual signs dominate, sometimes with Basque on top and sometimes Spanish and there are more signs in three or more languages. Ways of writing place names and personal names in Basque differ because French and Spanish have influenced how Basque on either side is written as well as spoken. Obviously, the linguistic landscape is a marker of the administrative state border.

BOX 12.1 PHEASANT ISLAND: AN ODDITY ILLUSTRATING LINGUISTIC LANDSCAPE WORK

The Bidasoa River defines the border between France and Spain and divides the Basque Country into a northern and southern part. In the river there is a small uninhabited island with a name in four languages. In English it is known as *Pheasant Island*; in Basque it is called *Konpantzia*; the Spanish name is *Isla de los Faisanes*; and in French it is *Île des Faisans*. The island is the world's oldest and smallest condominium, a shared political territory over which France and Spain alternate sovereignty every six months, although visitors are not allowed. The *Treaty of the Pyrenees* was signed in 1659 on this island, drawing a new map of Europe. This oddity nicely illustrates some of the key issues of linguistic landscape research (Figure 12.1).

A four-sided column is located on the island. An internet search shows an inscription in French facing France and on the opposite side there is one in Spanish. The texts commemorate the 200th anniversary of the treaty. The texts state the same thing, but with subtle differences because in the French version the names of French rulers come first, while in Spanish it is the other way around. The third side has the year 1861 in the form of a Latin number (MDCCCLXI), and on the fourth side there is a bilingual French–Spanish text dated 1959, celebrating the third centenary.

Numerous questions could be asked here. For example, can this monument constitute a linguistic landscape? Not if part of the definition is 'what can be seen from one point of view' (see Chapter 1) because one cannot see all four sides at once. The issue of the unit of analysis arises: is each side an identifiable frame or is it all one sign? Can this tiny island be considered a survey area? (These issues were discussed in Chapter 4.)

Figure 12.1 Column on Pheasant Island (from a distance)

If we decide to go ahead with a study, we would first need to decide on our theoretical approach. Ethnolinguistic vitality does not seem suitable, but a choice of perspective between power relationships, collective identity, frame analysis, geosemiotics, dimensions of space, pragmatics or contact linguistics all seem possible approaches. Second, we should develop research questions linked to the theoretical perspective chosen, involving the use of languages and their context. We could ask questions related to our multilingual inequality in public spaces (MIPS) model, such as the following: Who produced the stone column? Who made the design of plaques and who decided on the texts? What was the language policy involved? Is the sign in agreement with current French language policy (i.e. Toubon law)? Were all sides placed at once, or is one side indeed an addition 100 years later? Why the year 1861 and not 1859, celebrating 200 years of the treaty? Questions of authorship and language policy (see Chapter 8) are almost always relevant in linguistic landscape studies, and in this case it would involve searching archives or interviewing historical experts.

We could also look into the language arrangements and try to fit them into Reh's (2004) and Sebba's (2013) categorization schemes of multilingualism. Are the texts 'duplicating' or is the change in the order of names important? In Sebba's terms, the texts qualify spatially as 'symmetrical', in content 'equivalent' and linguistically as 'monolingual', while the bilingual text is 'mixed' and the year is 'language neutral' (see Chapter 6). From the perspective of onomastics we could analyze the names, their ordering and transliterations in French and Spanish (see Chapter 11).

The bilingual text, dated 1959, has French on top and Spanish below. What does this imply about the language hierarchy between French and Spanish or about power differences? Do the signs reflect French and/or Spanish identity issues? How do we interpret the number in Latin: is it a third language? Would that make it a multilingual sign? Or do we ignore the number?

Further questions could be asked, such as why is Basque absent? The language was certainly spoken in the area at the time of putting up the monument. Today, a sign on the river bank on the Spanish side has an explanatory sign in Basque, on top, and Spanish, below (see Chapter 7). A similar question considers the absence of English: is it remarkable, or is it to be expected given the age of the monument? (see Chapter 9).

Perhaps the question 'Who reads the texts?' lacks seriousness because the island is only visited twice a year by a few authorities and illegally visiting boat owners. Starting from the memorial, we could proceed with a further historical analysis and we could ask questions about the events that took place on the island, such as its relation to the division

of the Kingdom of Navarre in the early 16th century, which was the prelude to the division of the Basque Country into the north and south part: Iparralde and Hegoalde. Or how the Catalan territories were divided in the 1659 treaty.

In sum, the one column on this odd island presents a host of interesting questions, further challenges and new opportunities for linguistic landscape research.

Several researchers have focused on borders in their studies of linguistic landscapes, which often automatically implies a comparative approach. For example, on the border between Latvia and Estonia, Lazdiņa (2019) examined the linguistic landscape of the twin towns of Valka-Valga; a town that was split in 1918 after the independence of the two countries. She provided evidence to show that from a sociolinguistic perspective the town could not be considered as one. The linguistic landscapes on both sides of the border demonstrated similar patterns, but with important differences in the order and the number of languages. On both sides, the national state language came first, as is prescribed by law, and English and Russian had a presence, but the state language from across the border was little used. Comparable results were found in five tourist resort towns close to the border between Lithuania and Poland by Ruzaitė (2017). She observed a small presence of Polish (3.9%) in Lithuania and a complete lack of Lithuanian in similar Polish resorts. English had a substantial presence on both sides of the border, followed by Russian in Lithuania, but Russian was almost absent in Poland. Marten *et al.* (2012) compared six towns in the three Baltic States, four of which are border towns, although that circumstance did not play an important role in their analysis. Only for one town in Lithuania did they mention the use of some Polish due to the proximity of the Polish border (see Chapter 9 for the outcomes for English). The border between Lithuania and Poland was also studied by Kudžmaitė and Juffermans (2020). They found that the language regulations for Lithuanian were more strictly implemented than for Polish. The state languages Lithuanian and Polish were dominant on each side of the border and English appeared more often than German or Russian. Contrary to the expectations of the researchers, but in line with the other studies, there were hardly any signs in the language of the neighboring country.

Another border study took place in the cities of Frankfurt an der Oder and Słubice on the German–Polish border. Gerst and Klessmann (2015) mentioned that German–Polish bilingualism was officially promoted on both sides, but it was better implemented in the linguistic landscape of Frankfurt. Ideologically, there was a dominance of German over Polish. An important influence was exerted by cross-border organizations

and businesses that put up signs and by their audiences, such as tourists and buyers of products on the other side of the border. A similar study was presented by Fedorova and Baranova (2022) in the border towns of Ivangorod and Narva on the Russian–Estonian border. They examined the linguistic landscape of the twin towns based on the ethnographic linguistic landscape approach (ELLA) methodology (see Chapter 4). On the Russian side, the linguistic landscape was monolingual, with a few signs that had some English, but Estonian was completely absent. The situation was different on the Estonian side of the border because of Narva's large Russian-speaking population. Russian was still on display in some older monolingual signs, and also in home-printed signs in small shops. Bilingual Estonian–Russian signs could be found dating from the 1990s, and as bottom-up signs in shops. Today's government policy is strictly monolingual Estonian, though sometimes bilingualism with English and occasionally trilingualism are promoted. Russian propaganda maintains a hostile image of Estonian suppression of the Russian minority, thereby creating a monolingual bias against Estonian on the Russian side of the border. In another study, Baranova and Fedorova (2022) looked into the linguistic landscape of Vyborg, a Russian city located 30 kilometers from the Finnish–Russian border. In the central market, Russian is used outdoors, but indoors there are official bilingual signs and privately made signs with Finnish. In other locations in Vyborg, only Russian could be seen, with the exception of trilingual signs in some upscale hotels and restaurants. The official language policy today promotes some bilingualism in Russian and English, whereas previously it included Finnish. The opposite is the case in a bottom-up initiative where an increase in Finnish and English could be observed.

From the examples thus far, we see that in the three Baltic States, Poland, Germany, Finland and Russia there are similar findings of asymmetrical language use on both sides of the border.

In another part of Eastern Europe, Muth (2014) examined the linguistic landscape of Transnistria from the perspective of a borderland. This elongated strip of land is a breakaway area from Moldova, east of the Dniester River and bordering on Ukraine. Transnistria is a largely monolingual Russian area where language and cultural identity are used as tools for drawing borders. Typical propaganda billboards signal its close ties to Russia. Also in Transnistria, Muth (2015) surveyed rural linguistic landscapes. He observed, among others, that in order to signal official multilingualism one sign at the university was trilingual Russian, Moldovan and Ukrainian, but the social reality was monolingual Russian. Neighboring Moldova was different because official signs were in Romanian only, although Russian was used frequently in private signage. In Transnistria, Russian maintained a prominent status not only as the dominant language but also as a second language in the public space of Moldova. This circumstance makes Transnistria and Moldova

dissimilar from other former Soviet states (see also Muth [2012] and Section 8.5).

In Southern Europe, Lipovsky (2019b) compared the use of the Catalan language on signage in two towns on different sides of the border between France and Spain (for the outcomes, see Chapter 7). In the borderland between Portugal and Spain, Álvarez Pérez (2021) compared four towns. Contrary to other studies, he found that in two villages very close to the border the language of the neighboring country had a substantial presence in official and commercial signs. However, in the two larger towns located further away from the border, there was a limited presence of the languages on the other side of the border, even though they were part of a cross-border Eurocity project.

The borderlands on the island of Cyprus are explored by Themistocleous (2019, 2020). He examined the buffer zone that runs through the capital Nicosia, a space that is contested by the Greek and Turkish sides. Most public signs in the buffer zone are in English, a result which he also found in a study of the wider area. He presents examples of signs that can be interpreted as efforts to overcome the conflict because they target both groups and some are in Greek and Turkish. His studies imply that languages do not always mark the territory inhabited by a specific community. The same buffer zone was examined by Tsiplakou (2023) who looked into grammatical, semantic and pragmatic mixing in texts and observed linguistic hybridity through the use of the Cypriot Greek variety, the alternation of Cypriot and Standard Greek and the use of other languages with a subtle layering of languages and intertextual allusions. In official signage, Standard Greek was dominant.

In Asia, on the border between China and Vietnam, Li *et al.* (2020) observed a predominance of Chinese in the linguistic landscape of Hekou County in China. Bilingualism with English and local minority languages is common. Vietnamese only emerges in bilingual signs for official notices, trade, in banners and in some trilingual signs at the hospital, the station, in road signs and at border control. Similarly, Fedorova (2017) investigated the Chinese city of Manzhouli, which is located near the border with Russia. Visitors from Russia come to the city mainly for shopping and trade, but Chinese tourists come for its Russian character reflected in its architecture, food and music. The linguistic landscape was found to be largely bilingual Chinese–Russian (or trilingual with Mongolian) with various hybrid linguistic forms. Fedorova (2017: 108) concluded that 'the resulting city is perceived as Russian by Chinese and as Chinese by Russians'.

In the borderland between Hong Kong and the neighboring city of Shenzhen in mainland China, Danielewicz-Betz and Graddol (2014) compared peculiarities in the use of the English language in the linguistic landscape (see Chapter 9 and Graddol and Danielewicz-Betz [2014]). In Chapter 9, we summarized a study in Johor Bahru, a city in Malaysia on

the border with Singapore. Its author, McKiernan (2019), explained the relatively strong position of English on display by referring to the influence of the dominant position of English in neighboring Singapore. On the border with Thailand, two cities in Laos and Myanmar were compared for their linguistic landscapes. Siwina and Prasithrathsint (2020) found in each city a strong dominance of the state language (Lao and Burmese) and a substantial presence of English. In the city of Tachilek in Myanmar, some Thai was found on bilingual and trilingual signs, probably due to tourism, but the city of Savannakhet in Laos had no signs in Thai at all.

Obviously, a study of a border area or of towns on different sides of a border almost by definition implies a comparison. The various studies on border and borderlands we reviewed confirm that linguistic demarcation is important for the construction of a border, for the cities concerned and sometimes for the region as a whole. Work on linguistic landscapes shows how language borders are complex and dynamic phenomena. The perspective of linguistic landscape studies can deepen our understanding of contact zones where different languages are used and, at the same time, challenge traditional understandings of borders between languages. The studies demonstrate how linguistic landscape research can be a valuable addition to the field of border studies in general.

12.3.2 Gentrification

The topic of gentrification recurs with some regularity in linguistic landscape studies because the transformation process of a neighborhood exerts an important influence on the public space and thus on the linguistic landscape. Gentrification is mentioned as a recent research line in the overview publication by Bagna *et al.* (2021). Studies on urban planning have understood gentrification as 'the transformation of a working-class or vacant area of the central city into middle-class residential and/or commercial use' (Lees *et al.*, 2008: xv). The phenomenon has spread on a global scale and has alternatively been referred to as 'processes of neighborhood change and colonization represented by an increasing concentration of new middle classes' (Atkinson & Bridge, 2008: 1).

In linguistic landscape studies, the concept has been used to explain some of the changes in the display of languages in the public space. For example, Kasanga (2012) linked the level of gentrification of central neighborhoods of Phnom Penh (Cambodia) to the use of foreign languages in the linguistic landscape, in particular English. On average, English was the second most prominent language on signs after Khmer, the official state language, and English was gradually becoming a threat to French, the former colonial language. Khmer was omnipresent, but in three-quarters of the signs alongside English and other languages. In the non-gentrified, more peripheral areas, the signs were in Khmer only and there were no foreign languages (Figure 12.2).

Figure 12.2 Gentrification in Phnom Penh, with Khmer and English

Another example can be found in a study in Berlin that we mention in Chapter 9. Papen (2012) related the gentrification of the neighborhood of Prenzlauer Berg to changes in the linguistic landscape because some signs have contributed to making the neighborhood fashionable. Papen argues that the linguistic landscape reflects and, at the same time, gives shape to the processes of social transformation and social debates. Gentrification cannot be viewed separately from the associations between power, protest and contestation, and how various actors use the public space. Similarly to Papen, Vandenbroucke (2018) found examples of signs showing protests against further gentrification of the Dansaert neighborhood in Brussels. Her historical study uncovered stages of gentrification, which is still present in different layers in the linguistic landscape. The most recent urban change and gentrification has led to an increase in English to the detriment of French–Dutch bilingualism and the disappearance of once trendy or avant-garde Dutch names. Gentrification is also a central concept in the study by Järlehed *et al.* (2018) who compare two central neighborhoods of Gothenburg. They link language use on storefronts, restaurants and food trucks to gentrification processes.

Lyons and Rodríguez-Ordóñez (2017) provided another perspective in their study of 'perceived gentrification' in a neighborhood in Chicago. They concluded that gentrification is not only about socioeconomic or linguistic change, but also ideological change (see Chapter 4 for a summary of the study). As part of a larger project, Gonçalves (2018, 2019) documented gentrification processes in Brooklyn, New York. She analyzed how street art (including graffiti) has symbolic value and contributes to the commercialization and the commodification of a neighborhood. Using murals as examples, she points to historical, political, economic and racial inequalities. Gentrification can have a negative impact on weaker socioeconomic groups and she concluded that 'artistic revitalization processes have been regarded as one major contributing factor to

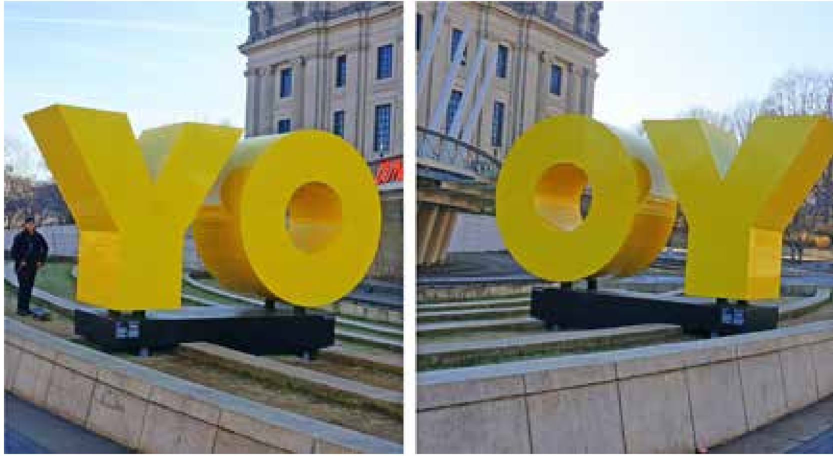

Figure 12.3 YO/OY sculpture in Brooklyn, New York

gentrification' (Gonçalves, 2018: 155). Gonçalves (2019) illustrated how one key player can commission a work of art and influence the gentrification process of the district DUMBO in Brooklyn. She presented an in-depth case study of the multilingual OY/YO sculpture by Deborah Kass, which became an immediate icon in the neighborhood. Interestingly, the sculpture traveled to other places in later years (Figure 12.3).

In another study of Brooklyn, Trinch and Snajdr (2017) made a distinction between storefront signs they label as *Old School Vernacular* and *distinction-making* signs (see Chapter 6, Figure 6.3), which they link directly to processes of gentrification and the representation of different language ideologies (see Trinch & Snajdr [2020] for a book-length treatment of signs in Brooklyn). In another publication, Trinch and Snajdr (2018) suggested that women, in particular new mothers, are important contributors to the transformation of the neighborhood, as displayed in storefront signs. In this way, the authors establish a relationship between the linguistic landscape, gentrification and the representation of gender and sexuality, which is the topic of the next section.

12.3.3 Gender and sexuality

Milani (2013a) was one of the first to apply a linguistic landscape perspective to the study of gender and sexuality. He examined an anti-homophobia safe zone campaign at the University of Witwatersrand in South Africa. By placing an emphasis on the multimodal dimensions of texts, he observed the linguistic landscape through the lens of queer theory, a branch of study closely linked to the field of gender and sexuality studies (also Milani, 2013b, 2014). His aim was to link both fields because just as 'linguistic landscape researchers should be vigilant about

the presence of gender and sexuality in the sites they investigate, so too should language, gender and sexuality researchers bring space into their analytical milieu' (Milani, 2013b: 228). In another publication, Milani (2014) reflected on examples of what he labels *banal sexed signs*, which are small, ordinary, modest items found at a magazine stand, on T-shirts and in a coffee shop. Using these examples, he revealed how power operates in relation to gender and sexuality.

In recent years, issues of gender and sexuality in relation to linguistic landscapes have been taken up by various researchers. In her reflections on the decade between 2006 and 2016, Shohamy (2019) mentions it as an emerging topic. The topic is highly diverse, and this can be illustrated through a reference to the contributions in a special issue of the journal *Linguistic Landscapes* in 2018. The first article focused on discourses about female sexuality and mothering as displayed through signage. As we mentioned above in the section on gentrification, Trinch and Snajdr (2018) presented an extension of their work on shop signs in Brooklyn. In the second article, Baudinette (2018) investigated the gay district of Tokyo and centers on the concept of desire, studying it through the lens of English and Japanese signs (see also Baudinette [2017] on signage related to types of gay masculinity). Graffiti in male toilets at the federal university in Rio de Janeiro was the issue examined by Barboza and Borba (2018). They analyzed how the graffiti can undermine and destabilize gendered and sexual norms. Milani *et al.* (2018) considered in detail what is called *homonationalism*. The researchers investigated the marketing of the Tel Aviv Pride festival by examining a promotional video and, by way of contrast, a protest against the occupation of Palestine performed at the pride (see also Milani & Levon, 2016). The final topic concerns breast augmentation advertising in Colombia. Correa and Shohamy (2018) analyzed advertisements from the websites of doctors and cosmetic surgery clinics, drawing on critical linguistic landscape and feminist theories. In a final commentary on these five contributions, Lazar (2018) posed questions related to underlying dimensions. For her, the issue is not about adding gender and sexuality to linguistic landscape studies, but rather the complexity of 'their mutual interaction, as well as through the entanglement of bodies, affect, and power' (Lazar, 2018: 327).

Other researchers have also focused on the topic of gender and sexuality related to linguistic landscapes. In a similar vein to Baudinette's study mentioned above, Motschenbacher (2020a, 2020b) examined Wilton Drive, a street in Florida, which is rendered as a gay space through signage. He took '(homo)normativity' as a key concept to ascertain how gay identity, gender, desire and sexual practices are marked in a monolingual English landscape. A related study in Athens and Belgrade was carried out by Canakis and Kersten-Pejanic (2016). They analyzed graffiti that addressed issues of gendered and sexual normalcy. They found several similarities between the two cities, although with less homophobia in Athens. Kerry (2017) examined signs in a gym in New Zealand, where

the messages confirmed what he labels as *hegemonic masculinity*, which 'often relates to hierarchy and exclusion based on what is perceived to be the ideal male' (Kerry, 2017: 212). He found that the hegemonic messages were hidden behind humor and motivational messages but marginalized less masculine groups. Even when the space of the gym was an indoor, semi-private and monolingual environment, the signs often represented widely held societal views. A different, more linguistic angle was taken by Bosworth (2019) who analyzed gender inclusivity as a feature of the French language in the linguistic landscapes of six Parisian universities. She found that students, somewhat more than staff, were engaged in the production of gender-inclusive texts. Another aspect was the focus of the study by Strange (2022), who analyzed issues of gender, national identity and the use of the Irish language during the abortion referendum.

The field of gender and sexuality comprises a wide range of topics and contexts. Looking through a linguistic landscape lens at some of those issues creates a different perspective and has an added value as the previous examples demonstrate. The studies by Barboza and Borba (2018) and Canakis and Kersten-Pejanic (2016) mentioned above combine the topics of gender and sexuality with the topic of graffiti which we take up in the next section.

12.3.4 Graffiti

As is well known, graffiti has a strong presence in the public space in certain areas of many cities. These transgressive hybrid forms of text and picture have attracted the attention of several researchers in the field of linguistic landscape studies, even though it is also a field with its own journal (*SAUC, Street Art and Urban Creativity*), handbooks (Lovata & Olton, 2016; Ross, 2016) and numerous other publications. In that sense, it is similar to onomastics (see Chapter 11) or other adjacent fields. Pennycook (2009, 2010) was among the first to examine graffiti in the context of linguistic landscape studies. He observed that graffiti is illegal in most cases, but it can also be seen as an art form and is related to learning skills, styles and identities and ways of claiming space. The so-called 'graffscapes' are an integral part of urban landscapes and they can open up 'alternative ways of thinking about how we interact with cities' (Pennycook, 2010: 142).

In the preceding sections, we mentioned studies that link the use of graffiti with gender and sexuality or with gentrification. Also in other chapters, we mentioned studies that direct our attention to graffiti. For example, in a study of Kharkiv, Ukraine, by Malykhina (2020), graffiti was an important element (see Chapter 3). We also summarized Rubdy's (2015b) study in which over 100 graffiti in Mumbai were analyzed (see Chapter 9) and the large-scale *Metropolenzeigen* project (see Box 6.3 in Chapter 6) included a study focusing on graffiti. Wachendorff *et al.* (2017) coded 39.9% of all signs in their corpus as transgressive; of those, most were stickers or tags, and only 1.2% was real graffiti (n = 122).

They found substantial differences between the eight neighborhoods investigated and most texts were in German.

The studies by Karlander (2018a, 2018b) are also worth mentioning. He analyzed ‘backjumps’, a type of graffiti written on subway trains of Stockholm. It appears and disappears continuously because the official policy defines it as a form of vandalism and has a strict regime of erasure. Karlander (2019) closely examined those anti-graffiti regimes and found that the acts of graffiti erasure often left visible traces behind, which he related to issues of the semiotics of non-existence. Another angle was taken by Seloni and Sarfati (2017), who analyzed graffiti during the Gezi Park protests in Istanbul in the summer of 2013. They found that the graffiti combined and mixed Turkish and English in creative hybrid forms. In this way, the graffiti could address international and local audiences, establish links with the Arab Spring or the Occupy movement, and develop themes such as the right to the city, excessive state power or restrictions on individual freedom. Similarly related to protest was an investigation at the University of Nanterre in Paris where Debras (2019) undertook a systematic analysis of some 400 graffiti. There, the commemoration of the 50th anniversary of the May 68 movement coincided with a large student mobilization in the spring of 2018. Her conclusion was that while graffiti may be considered a degradation of public buildings, they are at the same time an important form of political discourse that deserves detailed study. She further observed that all political graffiti was erased in later months. In a rather different context, but also related to protest, Yendra *et al.* (2020) examined graffiti in the city of Padang in Indonesia. In a qualitative study, they focused on the language part of the graffiti and concluded that it has two main symbolic functions. First, as a social critique, giving space to ideas not reflected in other media and, second, as a protest or a way to voice controversial ideas.

A historical perspective is applied in the study of Machetti and Pizzorusso (2020) who compared today’s graffiti to *sgraffio*. The latter is a form of public inscription or street art used between the 15th and 17th centuries in Italian cities to decorate the façade of buildings. The words are etymologically related, and in artistic terms this can be seen as a form of graffiti. Through the analysis of façades in Florence, they show how the function of *sgraffio* was to consent to existing power, but at the same time to dissent by defending the identity of individuals and families. Modern graffiti may start with protest, thus dissent, but it can also be transformed into institutional power and consent when it is conceived of as a form of street art that moves from the street into the art galleries. In what they label *activist teaching*, Niedt and Seals (2021) consider the multimodal use of graffiti alongside activist stickers, flags and displays of poetry in their comparison of the cities of Göttingen and Lviv. They showed how graffiti can play a role in the education of locals and visitors.

The examples make it clear that graffiti has been studied in rather different contexts and from different perspectives. In essence, the studies from a linguistic landscape perspective demonstrate that graffiti is not

just a matter of vandalism or the degrading of buildings or public transport, but can also be related to forms of art, protest and teaching.

12.3.5 Some further topics

12.3.5.1 Super-multilingual signs

Occasionally, authors mention that they found a sign with an exceptionally large number of languages, a type that we will call *super-multilingual* signs. For example, Jaworski (2015a) analyzed a 'Welcome' sign at an airport desk in 21 languages. He referred to the sign as 'a playful and spectacular instance of linguistic commodification through which languages become "deterritorialized" and "detached" from their original environments and speakers' (Jaworski, 2015a: 227). For him, lightheartedness is a characteristic of the display. Almost in passing, Leimgruber (2020) presented a sign with eight languages, which he called 'extreme multilingualism'. Yochim (2020) referred to a sign with the word 'neighbor' in nine different languages, reflecting old and new groups of migrants to a small town in Pennsylvania. Similarly, Ramos Pellicia (2021) mentioned a sign at the entrance of a market in San Diego that states in 12 languages 'Welcome' on one side and 'Thank you' on the other, although it does not represent a multilingual reality. Ruzaitė (2017: 210) mentioned in passing a sign in a tourist resort in Lithuania with 23 languages. Many readers have probably come across similar signs, especially with single words in several languages, such as 'welcome', 'goodbye', 'thank you', 'sale' or 'change'. Figure 12.4 illustrates the phenomenon at a tourist place in New Zealand.

Figure 12.4 Welcome sign in 23 languages and various scripts (Agrodome, Rotorua New Zealand)

Cohen (2015) discussed a related phenomenon, but this time for speakers. He examined 'super-multilinguals' or 'hyperpolyglots', who are speakers with an active command of at least 11 languages. Perhaps the criterion for this type of super-multilingual sign could be that they need to include more than 10 different languages. We propose that it might be worthwhile to study these super-multilingual signs as a special type of signage because it could provide further insight into commodification, the symbolic display of language, language hierarchy or hegemonic multilingualism.

12.3.5.2 The sign producing industry

Various studies have investigated the authors and producers of signs, but they are usually shop owners or institutions, and not the people working in the big agencies. Just a handful of agencies design and produce a majority of signs in almost any city in the world. Studies of signage have taken an economic perspective, but the influence of the sign industry, which comprises a few large multinational companies and thousands of small and medium-sized sign companies has hardly been investigated. Those companies have little interest in issues of multilingualism or language policies, other than to follow local regulations prescribing which languages they must use, cannot use or can exploit creatively. For linguistic landscape researchers, it could be relevant to study those companies.

12.3.5.3 A myriad of other topics

Dozens of other topics have been studied by linguistic landscape investigators. Some edited collections have addressed topics such as monuments and museums (Blackwood & Macalister, 2019), protest movements (Martín Rojo, 2016) and conflicts (Rubdy & Ben Said, 2015). Other collections bring studies together that focus on a specific language, usually in contact with other languages, like French (Castillo Lluch *et al.*, 2019; Eibensteiner *et al.*, 2022), German (Marten & Saagpakk, 2017; Ziegler & Marten, 2021) and Spanish (Gubitosi & Ramos Pellicia, 2021). Special issues of journals are another way to focus on one specific topic, for example, mobility (Moriarty, 2014a), multimodality (Zabrodskaja & Milani, 2014), typography (Järlehed & Jaworski, 2015), migration (Ariolfo & Mariottini, 2018), visceral landscapes (Stroud *et al.*, 2019), creativity (Moriarty & Järlehed, 2019), writing (Jaworski & Li, 2021), ideology and commemoration (Fabiszak & Buchstaller, 2021) as well as focusing on one country (Japan, Thailand or India). The annual special issue of the *Linguistic Landscape* journal deals with one topic; for example, the latest two volumes concerned diasporas (2021) and the COVID-19 pandemic (2022). We also mentioned that 'foodscapes', ethnic restaurants and gastronomy have attracted the attention of several researchers. The seemingly ever-expanding field includes, among others,

corporeal landscapes (skinscapes), affect, emotions and happiness. The field sometime looks like a smorgasbord of topics and these topics all deserve further study and can contribute in important ways to strengthening and developing the field.

12.4 A Forward Outlook

The results of linguistic landscape studies have been published for some years now, but only in recent years has there been an exponential increase in the number of publications. It is likely that researchers will continue to investigate the use of written languages in public spaces as well as other broader issues. Those researchers will together decide on the future direction of the field, but at the same time important societal developments will influence what and how researchers can investigate. In this final section, we point to technology and to a trend toward uniformity as two important sources of influence in this field. We also return to the general model proposed in Chapter 3 in order to show how a holistic approach is possible. We close this chapter with some general reflections on the future of the field.

12.4.1 Technological developments

From the early days, technological innovations have had a strong influence on the field (Gorter, 2006b). The study of linguistic landscapes began at a time when there was no internet, no social media, no smartphones with multiple apps, no messaging of texts and images, and so on. For linguistic landscape researchers the spread of these relatively new technologies can pose a challenge. In the preceding chapters, we mentioned innovative use, the integration of technology, links between offline and online worlds and the use of Google Street View for data collection; however, other technological innovations will continue to change the public display of languages in ways that are not yet entirely clear. Such new technologies may urge researchers to adapt their studies of languages and signs. As the field moves forward, the changes will result in further shifts in theoretical approaches and research methods.

The introduction in the 1990s of digital cameras with sufficient memory for a reasonable price made it possible for linguistic landscape researchers to take an almost unlimited number of photographs of signs. Back then, taking pictures of signs in a public space like a shopping street may have felt somewhat awkward. Today, a mobile phone has a high resolution camera and taking pictures in public spaces has become socially accepted in almost any location. With the help of such a camera it is relatively simple to create a photographic record of texts in a public space. It is then not complicated to upload large numbers of photos of signs to a personal computer or to the cloud. In a university course there are no longer obstacles to teachers assigning a task on linguistic landscapes because

all students own a digital camera. Implementing a policy of 'bring your own device' (BYOD) has become accepted in many school contexts. It is no longer even a requirement for a researcher to go out into the street to collect images of signs because countless photographs of public signs are freely available on the internet and the various social media platforms can be an interesting source for finding pictures of signs. Probably one of the most relevant sources for that purpose is Google Street View, as shown in Chapter 4.

Technology has increased the possibilities for multilingualism more than ever. There is a kind of 'parallel monolingualism' in several languages because user manuals and phone, tablet, laptop and TV displays are usually available in between 5 and 25 languages. 'Language on demand' is available through automatic translations or subtitles in over 100 languages. Automatic translations are of increasingly better quality, notwithstanding anecdotal evidence to the contrary. Signs with quick response (QR) codes are an interesting example deserving further study. QR codes existed long before the COVID-19 pandemic started to spread in early 2020, but since then the small black and white squares have become more familiar and can be frequently seen in public spaces. QR codes are a phenomenon related to signage because they are now often used to avoid physical contact when presenting, for example, a menu in a restaurant or information in a museum. QR codes cannot be read by human beings but only by a scanner as a way to control access or through a smartphone application, where it usually leads the reader to a website. This digital sign only acquires meaning once the reader uses a tool. The information behind a QR code is often available in several languages and the user can choose. In this way, languages become more dynamic and interchangeable and are no longer predetermined.

Applications that use augmented, virtual, mixed or extended reality (AR, VR, MR or XR) represent important innovations for the next generation of personal technology. Various companies such as Apple, Facebook, Google and Microsoft are competing to develop wearable applications. This could be in the form of digital glasses with built in computers through which the user obtains virtual information about objects in their surroundings while looking at them. It could be a timetable, a map of the surrounding city, a warning sign or a visitor information panel. Not only can static texts be projected, but also images, sound and video just as easily. Overlaying the real world with digital data will certainly change how languages and signs are perceived, read and interacted with. Combining wearable glasses, mixed reality, automatic translation and artificial intelligence makes it likely that perceiving and experiencing linguistic landscapes will change substantially. The user can probably choose in which language to read and translate a multilingual cityscape. This implies that the signage becomes monolingual for the user, which will be, in many but not all cases, English. Evidently, such

innovations will lead to various new research questions for linguistic landscape studies related to multilingualism, language hierarchies, the visibility of minority languages, language ideologies, identity and commodification. People are already participating in the virtual world of the metaverse, emphasizing social connections and where participating in online meetings, games and performances is possible, which obviously implies advertisements and signage.

Public signage used to be mostly static and fixed, making it possible to analyze historical changes using signs. However, the use of video displays means that historical layers disappear from the linguistic landscape. The recent digitalization of public spaces creates fresh challenges for the researcher because the relationship of people with places may change (Bailly & Marchand, 2021). Meanwhile the role of the physical public sphere has also changed, if not declined in importance for cultural, social and political activities (Badel & Lopez Baeza, 2021). The spread of video displays, digital billboards and other digital appliances where texts and visuals change continuously make linguistic landscapes more dynamic and fluid. These new technologies populate urban commercial areas and are incorporated next to the mobile devices that so many people hold in their hands in shopping streets. The aim of many digital devices is not only to display commercial information and to capture the attention of potential clients, but also to entertain or even to remember the preferences of the customer. To this we should add the omnipresence of surveillance cameras and sensors and how these aim to regulate behavior (Jones, 2017).

In their studies of linguistic landscapes, researchers have to adapt and adjust theoretical concepts and research tools in their efforts to move the field forward. For example, technological advancement can help with the semi-automatized analysis of signs. Gilles and Ziegler (2021) have proposed a method of automated text extraction to explore the linguistic features in signs. They used the software tool Google Cloud Vision API on data from their *Metropolenzeigen* project (see Chapter 6). Similarly, a modern camera app on a mobile phone offers the possibility of automatically extracting words, letters and numbers from signs. For the time being, the human eye of the researcher is essential in the process of categorization, interpretation and analysis, but artificial intelligence applications will become more advanced in providing support.

Technological inventions, think of generative artificial intelligence, will continue to spread across society, some of which are already among us on a small scale and others will arrive soon. In relation to the changes brought about by technology that alter linguistic landscapes, there is also a trend toward more homogeneity and uniformity as we discuss in the next section.

12.4.2 A trend toward uniformity

In any context in the world, each linguistic landscape is a unique constellation of signs which may seem disordered and chaotic, at least at first. However, upon closer inspection one can observe a trend toward less variation in public signage. At a time when the population of many cities has become superdiverse in terms of identities and the languages they speak, a prevailing trend in linguistic landscapes of urban environments across the globe seems to be moving in the direction of greater uniformity. Overall, the impact of globalization means that the shopping streets in city centers around the world have to a large extent started to 'dress' and look alike. One obvious reason is the use and visibility of a relatively small repertoire of English, combined with a limited number of worldwide brand names or big commercial names (Ben-Rafael & Ben-Rafael, 2019). One can also think of this process as 'forms of language that travel globally' (Stroud & Mpendukana, 2010: 476). Large international chains replicate not only their names but also other multimodal design factors of storefronts and window displays, including slogans, logos, fonts, lighting, colors and even the music played, which makes shopping streets look more and more alike (Vandenbroucke, 2016). The convergence in linguistic landscapes is enhanced by other factors related to globalization such as global trends in marketing for fast food and fashion, or the dissemination of technology, in particular video screens for outdoor advertising.

The phenomenon of homogenization was illustrated in an early study by Ertep (2009) who discussed a local policy to standardize signage in Istiklal Street, or Beyoğlu, in central Istanbul. All fascia boards and shop fronts needed to have one visual style: wooden backgrounds with brass lettering in an attempt to bring back a nostalgic look. Some people reacted positively because it brought order out of chaos; however, architects and designers, in particular, reacted negatively and saw it as a form of imposition, creating a control mechanism in an effort to discipline culture. As a result, Erterp (2009: 269) concluded 'Istiklal Street has been stripped of its unique character and identity'. More recently, the policy has been relaxed and gradually the forms and colors of signs have returned (Figure 12.5).

The label *global semioscape* was applied by Thurlow and Aiello (2007) to their examination of the design of aircraft tail fins. They pointed out how similar these fins were. In recent publications, the same concept has been used for case studies of globalizing processes in which images, language practices and aesthetic ideals have circulated around the world. This can be seen, for example, in images of the Burj al Arab hotel in Dubai that circulate as an icon (Thurlow & Jaworski, 2017), in anti-racism posters that combine global and local elements (Thurlow, 2021) and in the visual and material practices surrounding so-called

Figure 12.5 Standardized (left) and non-standard sign (right), Istiklal Street, Istanbul (March 2009)

infinity pools (Thurlow, 2022). Basically, the idea of a global semioscape points to a similar trend toward uniformity across the world as we pointed out above.

In the literature on globalization, the trend toward homogenization has sometimes been referred to as *McDonaldization* (Ritzer, 2011) based on the principles of running a fast-food restaurant, such as efficiency, calculability and control. Such principles were introduced and are becoming dominant in more sectors of society, fitting in with neoliberal policies. However, visually, those fast-food restaurants are by no means a dominating element of urban center streets. Instead, clothing stores are far more frequent and more prominent. For linguistic landscape studies, it would probably be better to refer to a process of greater uniformity of shopping streets as *zarafication*, after the international fashion brand operating in almost 100 countries. Their stores are usually strategically positioned on a street corner and even if the architecture of the buildings is different across cities, their minimalistic signage is exactly the same in any location (Figure 12.6).

Global brands and international chain stores sometimes consider the local aspect and adjust their image and language to create a degree of what is called 'localization'. Big commercial names remain the same worldwide, including the design of their logo and related materials, but an international company may decide to localize their slogan during an advertising campaign or have informative signs in a local language. The signage of local shops can provide a stronger specific identity to the appearance of shopping streets and thus can attribute greater importance to the local dimension.

Figure 12.6 ZARA shops in New York, Suzhou, Limoges, Liverpool, Ho Chi Min city, Ljubljana and Shanghai

Paradoxically, predominantly uniformized linguistic landscapes are targeted at consumers who are increasingly linguistically diverse. The result of the current trend toward more uniformity is that a superdiverse population often walks through a largely bilingual linguistic landscape. In many instances, the official state language and English are the two visible languages, to which traces of other languages may be added, as well as invented trademarks and big commercial names. Ferenčik (2018: 2) argues that 'many places in the world look similar not only visually but also ideologically', although he also observed that patterns are modified and adapted to specific local contexts.

The effects of the global uniformity of signage have been clearly demonstrated, for instance during the COVID-19 pandemic, which led to a rapid makeover of linguistic landscapes (e.g. Hopkyns & Van den Hoven, 2022; Lou *et al.*, 2022; Marshall, 2021). The new signs that appeared almost overnight in urban environments showed some local differences and had some unique characteristics, but at the same time there were remarkable similarities in the messages they conveyed (keep a distance, wear a mask, wash your hands, etc.), the type of language used (warnings, advice, health information) and even in typography and design (see example in Figure 1.1).

In shopping streets everywhere, also during the pandemic, the global permeates the local resulting in a worldwide trend toward more uniformity in urban displays of languages. We can observe how signage may circulate globally and this could be referred to as a trend toward a global linguistic landscape.

12.4.3 Fitting our MIPS model to new times

The model of multilingual inequality in public spaces which we proposed in Chapter 3, aims to advance linguistic landscape studies. As we have seen in this book, most studies thus far have focused on the characteristics or meanings of the signs themselves: the third and central component of the model. From our point of view, researchers have to broaden their scope and consider a larger variety of elements. Our model is designed to go in a holistic direction and consider all five components and their interrelations within one study. This implies looking at recurring sequences of events from policy development, through the production and design of signage, to how people read and react to signs. It is, however, not strictly necessary to include all components in every study. Each of the five components separately can be related to issues that may be expressed as research questions. For each component, a series of questions can be formulated as part of a research agenda (Gorter, 2021: 24–25):

(1) Do language policies lead to more equality of languages on signage?
(2) Does the design and production of signs have an effect on the unequal representation of languages?
(3) To what extent does the signage itself reveal linguistic and social inequalities?
(4) In navigating multiple languages in urban public spaces, how many of all the signs do individuals notice and how many of the languages on the signs do they read? How much inequality do they perceive?
(5) How do people evaluate and react to the unequal display of languages? How does this, in turn, influence language policy and sign production?

Using the MIPS model, those research questions can be investigated and linked. Researchers can go beyond focusing on just the signs because signage is related to policies, to the authors of signs and to the 'inhabitants of linguistic landscapes' who perceive and interpret the signs. Moreover, the model has the potential to analyze the social impact of linguistic landscapes. For example, it fosters a critical understanding of the possible manipulations of signage in public spaces and it aims to reveal inequalities. The results of research studies based on our model can have a substantial social impact because of their potential use by language policymakers, activists and teachers in education. The analysis can also address issues related to the power of multinational companies that, as owners of big commercial names, largely dominate linguistic landscapes.

The model creates relevant possibilities for new research lines on issues of inequality between languages and social groups. With the help of the MIPS model, questions can be answered about linguistic and

social issues in society, which makes the model in its essence sociolinguistic. Using our MIPS model, multilingualism in public spaces can be fully scrutinized. The signage in multilingual urban spaces displays by definition the inequality of languages, which we can make better sense of through the model. In fact, the model enables us to answer questions on how individuals and social groups can be empowered through multilingual signage. In the case of minority language groups, the model can be used to analyze how a multilingual display supports their cause or obstructs it. Analyzing legitimization or delegitimization through signage may be important to increase awareness of the possibilities of language promotion or revitalization. Minority language activists can try to influence or change the visibility of their language. They may also want to convince language policymakers to develop rules and regulations to secure a greater presence of their language in the public arena. In this way, the analysis of linguistic landscapes can make a contribution to social justice and the well-being of social groups.

12.5 Final Views

In many urban environments, we come across an abundance of signs, which has sometimes been called 'visual pollution'. In some countries, the authorities have tried to curb the number of signs, in particular large billboards (see Azumah *et al.* [2021] for an overview). A famous case was the campaign of Mayor Kassab of Sao Paulo (Brazil), the largest metropolis in South America (Plummer, 2006). Under the Clean City Law (*Lei Cidade Limpa*), the mayor banned outdoor advertising and limited storefront signs. Advertising agencies strongly opposed the law and warned of severe negative economic effects. Still, some 15,000 billboards and oversized signs were removed. Surveys showed that the population was in favor of the result and the mayor rhetorically stated 'of all the different kinds of pollution, visual pollution is the most obvious' (Downie, 2008). With the COVID-19 pandemic in 2020, campaign posters were allowed on public roads. In 2021, the city celebrated 15 years of the measure and claimed that the Clean City Law did not end advertising, but merely regulated it (Cidade de São Paulo, 2021).

Of course, researchers would not like all signs to be removed because they want to investigate 'signs in place'. They seek to analyze the social and cultural placement of signs, with the aim of describing 'the social meaning of the material placement of signs and discourses' (Scollon & Scollon, 2003). Put simply, researchers consider the 'why here?', 'why this way?' and the 'by and for whom?' of particular signs in particular places, as well as the reactions those signs may trigger. As a result, questions of authorship, readership and functions may emerge.

As we have shown in Chapter 3 and throughout the various chapters, theoretical diversity is an important and positive dimension of the field.

However, more theoretical progress should be made. Many empirical studies lack a solid theoretical base and are often only loosely framed according to a few ideas which are illustrated with a handful of examples of signs. Too many studies remain on the surface in describing the researcher's observations without achieving a deeper level of insight and explanation. Some analytical concepts lack the sharpness and strength to achieve a deep understanding of the significance of signage and its meaning in a wider social context. Continuing to expand the view can be helpful, but in order to reinforce theoretical ideas it is essential to continue to reflect on the creation, placement and meaning of signs, and how language in the wider sense of the word has an impact on people's lives. The way forward may be to apply or test theoretical concepts in empirical studies, which is perhaps better than descriptive studies that recount what the signage in a given context looks like, or studies that present an analysis of a handful of selected signs when it is not clear how, what or where a study wants to contribute to already existing knowledge.

The most characteristic research method of linguistic landscape studies is to collect photos of signs in public spaces and then analyze those photos as primary data (see Chapter 4). Although such data are often central to an investigation, the results serve mainly as an extra reference from a different perspective that provides an additional source of information on a sociolinguistic situation. It seems fruitful to combine photographic data with a language census, a sociolinguistic survey, individual or focus group interviews, systematic observations or ethnographic fieldwork. As we have seen in Chapter 4, researchers choose between quantitative, qualitative or mixed methods. In some cases, the selection of the method seems to have been coincidental or based on a personal like or dislike, and even when that provides interesting results, perhaps it would be more productive to try and build on the outcomes of earlier investigations.

Various researchers have emphasized the importance of a diachronic approach (or a historical perspective or longitudinal study), but less often the proposal is made to replicate a former study, not only to observe possible changes over time, but also to check for consistency in the results. The ability to replicate obviously demands a rigorous approach to sample design, data collection and analytical techniques. Currently, too many studies are failing in this respect.

Some samples appear to be substantial in size, but, so far, linguistic landscape research has not effectively used 'big data' methods to mine the vast amounts of data available in the public sphere and to construct predictive models and other advanced analytical applications (although we mentioned some advanced statistical models in Chapter 4). Evidently, urban environments have become increasingly digital, among other things because of a multitude of video screens, which implies that huge data sources are available to be analyzed, at least in principle.

We saw in Chapter 10 that publications on the possibilities of linguistic landscape for teaching and learning inside and outside schools have taken off in a big way. Perhaps one could designate this recent development as an educational turn in linguistic landscape studies. It has become obvious that the pedagogical potential will be explored further in future studies.

The field of linguistic landscape studies attempts to discover the meanings of language fragments that are visible in public spaces and what they can tell us about multilingualism, social changes and what is happening in society at large. An important aspect of linguistic landscape research is the movement back and forth between interpretations at the micro and macro level. It is important to attempt to combine both micro and macro perspectives. The study of linguistic landscapes is also well suited to examining the differences in power of various language groups in multilingual societies. Further work on linguistic landscapes may allow us to recognize how majority language groups, central governments and large corporations exercise the most power over the appearance of public signage. The future development of this emerging field is, of course, greatly stimulated by the enthusiasm of a growing group of researchers from all around the world who want to contribute to its further development and growth. The presentations and thematic panels at international conferences, the dedicated annual workshops, edited volumes, countless journal articles and book chapters, term papers, master's and PhD theses, and much more, all contribute to the blossoming of this field of studies.

Taken together, the advances made over the past decades have created a solid infrastructure for this field. Investigating the linguistic landscape in its own right is still a relatively recent development, but there are reasons to expect that the trend of increasing numbers of publications about this exciting research area will continue in the future. As has been observed, once you get drawn into studying signage, it makes you see the world with different eyes, and it may never let you go.

References

Abas, S. (2019) Cosmopolitanism in ethnic foodscapes: A geosemiotic, social literacies view of restaurants in Bloomington, Indiana. *Linguistic Landscape* 5 (1), 52–79. https://doi.org/10.1075/ll.17019.aba

Abdelhay, A., Makoni, S. and Severo, C. (eds) (2020) *Language Planning and Policy: Ideologies, Ethnicities, and Semiotic Spaces of Power*. Newcastle-Upon-Tyne: Cambridge Scholars Publishing.

Abongdia, J.F.A. and Foncha, J.W. (2014) Language ideologies in the linguistic landscape of one university in South Africa. *Mediterranean Journal of Social Sciences* 5 (7), 623.

Adekunle, T.O., Mheta, G. and Rapeane-Mathonsi, M. (2019) Exploring linguistic landscapes in selected South African universities: A case study of the University of Cape Town and the University of the Western Cape. *Stellenbosch Papers in Linguistics Plus* 56, 123–153. https://doi.org/10.5842/56-0-803

Agha, A. (2005) Voice, footing, enregisterment. *Journal of Linguistic Anthropology* 15 (1), 38–59.

Agnihotri, R.K. and McCormick, K. (2010) Language in the material world: Multilinguality in signage. *International Multilingual Research Journal* 4 (1), 55–81. https://doi.org/10.1080/19313150903501133

Aiestaran, J., Cenoz, J. and Gorter, D. (2010) Multilingual cityscapes: Perceptions and preferences of the inhabitants of Donostia-San Sebastián. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 219–234). Bristol: Multilingual Matters.

Akindele, D.O. (2011) Linguistic landscapes as public communication: A study of public signage in Gaborone Botswana. *International Journal of Linguistics* 3 (1), 1–11. https://doi.org/10.5296/ijl.v3i1.1157

Aladjem, R. and Jou, B. (2016) The linguistic landscape as a learning space for contextual language learning. *Journal of Learning Spaces* 5 (2), 66–70.

Al-Athwary, A. (2017) English and Arabic inscriptions in the linguistic landscape of Yemen: A multilingual writing approach. *International Journal of Applied Linguistics and English Literature* 6 (4), 149. https://doi.org/10.7575/aiac.ijalel

Albury, N.J. (2021) Linguistic landscape and metalinguistic talk about societal multilingualism. *International Journal of Bilingual Education and Bilingualism* 24 (2), 207–223. https://doi.org/10.1080/13670050.2018.1452894

Alomoush, O.I.S. and Al-Naimat, G.K. (2018) English as the lingua franca in visual touristic Jordan: The case of Petra. *International Journal of Applied Linguistics and English Literature* 7 (4), 1–13. https://doi.org/10.7575/aiac.ijalel.v.7n.4p.1

Álvarez Pérez, X.A. (2021) Language contact on the Spanish-Portuguese border: A contribution from the linguistic landscape perspective. In M. Bouzouita, R. Enghels and C.Vanderschueren (eds) *Different Perspectives on Convergence and Divergence in*

Ibero-Romance: Language Contact and Contrasting National Varieties (pp. 115–146). Berlin: De Gruyter.

Álvarez-Mosquera, P. and Coetzee, F. (2018) 'It makes it legit': Local semiotic perceptions of the linguistic landscape in a market in Soshanguve, South Africa. *Social Semiotics* 28 (4), 494–511. https://doi.org/10.1080/10350330.2017.1406569

Amara, M. (2015) Hebraization in the Palestinian language landscape in Israel. In B. Spolsky, O. Inbar-Lourie and M. Tannenbaum (eds) *Challenges for Language Education and Policy* (pp. 182–195). New York: Routledge.

Amara, M. (2018a) *Arabic in Israel: Language, Identity and Conflict*. Abingdon: Routledge.

Amara, M.H. (2018b) Palestinian schoolscapes in Israel. *Asian-Pacific Journal of Second and Foreign Language Education* 3, 7. https://doi.org/10.1186/s40862-018-0047-1

Amara, M. (2019) Arabisation, globalisation, and Hebraisation reflexes in shop names in the Palestinian Arab linguistic landscape in Israel. *Language and Intercultural Communication* 19 (3), 272–288. https://doi.org/10.1080/14708477.2018.1556676

Amara, M., Ben-Rafael, E., Shohamy, E. and Tushyeh, H.Y.J. (1998) Linguistic landscape and multiculturalism: An Israel-Palestine comparative study. Research proposal. University of Tel Aviv.

Amos, H.W. (2016) Chinatown by numbers: Defining an ethnic space by empirical linguistic landscape. *Linguistic Landscape, An International Journal* 2 (2), 127–156. https://doi.org/10.1075/ll.2.2.02amo

Amos, H.W. (2017) Regional language vitality in the linguistic landscape: Hidden hierarchies on street signs in Toulouse. *International Journal of Multilingualism* 14 (2), 93–108. https://doi.org/10.1080/14790718.2015.1103244

Amos, H.W. (2020) English in French commercial advertising: Simultaneity, bivalency, and language boundaries. *Journal of Sociolinguistics* 24 (1), 55–74. https://doi.org/10.1111/josl.12386

Amos, H.W. and Soukup, B. (2020) Quantitative 2.0: Towards variationist linguistic landscape study (VaLLS) and a standard canon of LL variables. In D. Malinowski and S. Tufi (eds) *Reterritorializing Linguistic Landscapes: Questioning Boundaries and Opening Spaces* (pp. 56–66). London: Bloomsbury.

Androutsopoulos, J. (2007) Bilingualism in the mass media and on the internet. In M. Heller (ed.) *Bilingualism: A Social Approach* (pp. 207–230). London: Palgrave Macmillan.

Androutsopoulos, J. (2013) English 'on top': Discourse functions of English resources in the German mediascape. *Sociolinguistic Studies* 6 (2), 209–238. https://doi.org/10.1558/sols.v6i2.209

Androutsopoulos, J. (2021) Linguistic-Landscape-Forschung mit dem Smartphone: Möglichkeiten und Grenzen der Webapplikation LinguaSnappHamburg. In H.F. Marten and E. Ziegler (eds) *Linguistic Landscapes im deutschsprachigen Kontext: Forschungsperspektiven, Methoden und Anwendungsmöglichkeiten im Unterricht und Sprachmarketing* (pp. 37–62). Berlin: Peter Lang.

Anfinson, A. (2020) Hong Kong's paper cities: Heterotopia and the semiotic landscape of civil disobedience. In D. Malinowski and S. Tufi (eds) *Questioning Boundaries, Opening Spaces: Reterritorializing Linguistic Landscapes* (pp. 137–159). London: Bloomsbury.

Antrop, M. (2013) A brief history of landscape research. In P. Howard, L. Thompson, E. Waterton and M. Atha (eds) *The Routledge Companion to Landscape Studies* (pp. 12–24). Abingdon: Routledge.

Antrop, M. and Van Eetvelde, V. (2017) *Landscape Perspectives: The Holistic Nature of Landscape*. Cham: Springer.

Anuarudin, A.A.S., Heng, C.S. and Abdullah, A.N. (2013) Exploring multilingual practices in billboard advertisements in a linguistic landscape. *Pertanika Journal of Social Sciences and Humanities* 21 (2), 783–796. https://www.pertanika.upm.edu.my/view_archives.php?journal=JSSH-21-2-6

Appadurai, A. (1990) Disjuncture and difference in the global cultural economy. *Theory, Culture & Society* 1, 295–310.

Ariffin, K. and Husin, M.S. (2013) Patterns of language use in shop signs in Malaysian towns. *Journal of Arts, Science and Commerce* 4 (3), 12–20. https://www.researchersworld.com/vol4/issue3/index.html

Ariffin, K., De Mello, G., Husin, M. and Anuarudin, A.A.S. (2019) Linguistic landscapes in Putrajaya: Competing codes and choice. In M.Y.M. Noor, B.E. Amad, M.R. Ismail, H. Hashim and M.A.B. Baharum (eds) *Proceedings of the Regional Conference on Science, Technology and Social Sciences (RCSTSS 2016)* (pp. 431–442). Singapore: Springer.

Ariolfo, R. and Mariottini, L. (2018) Introducción: El paisaje lingüístico en contextos de migración. *Lingue Linguaggi* 25, 5–15. https://doi.org/10.1285/i22390359v25p5

Aronin, L. and Ó Laoire, M. (2012) The material culture of multilingualism. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 299–318). Basingstoke: Palgrave Macmillan.

Atkinson, R. and Bridge, G. (eds) (2008) *Gentrification in a Global Context: The New Urban Colonialism*. Abingdon: Routledge.

Azumah, D.M.Y., Hinson, R.E., Nukpezah, D. and Yiran, G.A.B. (2021) Visual pollution through excessive outdoor advertisements. In T. Anning-Dorson, R.E. Hinson, H. Boateng, A. Anani-Bossman, A.C. Kirgiz and M. Gujral (eds) *Marketing Communications in Emerging Economies, Volume I: Foundational and Contemporary Issues* (pp 193–228). London: Palgrave Macmillan.

Backhaus, P. (2005a) Signs of multilingualism in Tokyo: A linguistic landscape approach. Unpublished PhD thesis, Universität Duisburg-Essen.

Backhaus, P. (2005b) Signs of multilingualism in Tokyo: A diachronic look at the linguistic landscape. *International Journal of the Sociology of Language* 2005 (175/176), 103–121. https://doi.org/10.1515/ijsl.2005.2005.175-176.103

Backhaus, P. (2006) Multilingualism in Tokyo: A look into the linguistic landscape. *International Journal of Multilingualism* 3 (1), 52–66. https://doi.org/10.1080/14790710608668385

Backhaus, P. (2007) *Linguistic Landscapes: A Comparative Study of Urban Multilingualism in Tokyo*. Clevedon: Multilingual Matters.

Backhaus, P. (2009) Rules and regulations in linguistic landscaping: A comparative perspective. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 157–172). New York: Routledge.

Backhaus, P. (2010) Multilingualism in Japanese public space: Reading the signs. *Japanese Studies* 30 (3), 359–372. https://doi.org/10.1080/10371397.2010.518598

Backhaus, P. (2015) Attention, please: A linguistic soundscape/landscape analysis of ELF information provision in public transport in Tokyo. In K. Murata (ed.) *Exploring ELF in Japanese Academic and Business Contexts: Conceptualisation, Research and Pedagogic Implications* (pp. 194–209). Abingdon: Routledge.

Backhaus, P. (2019) Linguistic landscape. In P. Heinrich and Y. Ohara (eds) *Routledge Handbook of Japanese Sociolinguistics* (pp. 158–169). Abingdon: Routledge.

Badel, F. and Lopez Baeza, J. (2021) Digital public space for a digital society: A review of public spaces in the digital age. *ArtGRID-Journal of Architecture Engineering and Fine Arts* 3 (2), 127–137.

Bagna, C. and Machetti, S. (2012) LL and (Italian) menus and brand names: A survey around the world. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscapes, Multilingualism and Social Change* (pp. 217–230). Berlin: Peter Lang.

Bagna, C. and Bellinzona, M. (2022) Italian linguistic schoolscape: Neo-plurilingualism in an age of migration. In E. Krompák, V. Fernández-Mallat and S. Meyer (eds) *Linguistic Landscapes and Educational Spaces* (pp. 77–103). Bristol: Multilingual Matters.

Bagna, C., Gallina, F. and Sabrina, M. (2018) L'approccio del linguistic landscape applicato alla didattica dell'italiano L2 per studenti internazionali. In C.M. Coonan,

A. Bier and E. Ballarin (eds) *La didattica delle lingue nel nuovo millennio: le sfide dell'internazionalizzazione* (pp. 219–231). Venice: Edizioni Ca'Foscari.

Bagna, C., Barni, M. and Bellinzona, M. (2021) Linguistic landscape and urban multilingualism. In E. Adamou and Y. Matras (eds) *Routledge Handbook of Language Contact* (pp. 349–365). New York: Routledge.

Bailey, B. (2012) Heteroglossia. In M.M. Jones, A. Blackledge and A. Creese (eds) *Routledge Handbook of Multilingualism* (pp. 499–507). Abingdon: Routledge. doi:10.4324/9780203154427.ch29

Bailly, E. and Marchand, D. (2021) Digitalization of public spaces: sensory and emotional issues in people's relationships to places. *Journal of Urban Research* (22). https://doi.org/10.4000/articulo.4785

Baker, P. and J. Eversley (eds) (2000) *Multilingual Capital: The Languages of London's School Children and Their Relevance to Economic, Social and Educational Policies*. London: Battlebridge Publications.

Banda, F. and Jimaima, H. (2015) The semiotic ecology of linguistic landscapes in rural Zambia. *Journal of Sociolinguistics* 19 (5), 643–670. https://doi.org/10.1111/josl.12157

Banda, F. and Jimaima, H. (2017) Linguistic landscapes and the sociolinguistics of language vitality in multilingual contexts of Zambia. *Multilingua* 36 (5), 595–625. https://doi.org/10.1515/multi-2017-3047

Banda, F. and Mokwena, L. (2019) Commodification of African languages in linguistic landscapes of rural Northern Cape Province, South Africa. *International Journal of the Sociology of Language* 2019 (260), 177–198. https://doi.org/10.1515/ijsl-2019-2054

Banda, F., Jimaima, H. and Mokwena, L. (2019) Semiotic remediation of Chinese signage in the linguistic landscapes of two rural areas of Zambia. In A. Sherris and E. Adami (eds) *Making Signs, Translanguaging Ethnographies: Exploring Urban, Rural and Educational Spaces* (pp. 74–90). Bristol: Multilingual Matters.

Barakos, E. (2020) *Language Policy in Business: Discourse, Ideology and Practice*. Amsterdam: Benjamins.

Baranova, V. and Fedorova, K. (2022) 'Nothing personal, just business': Individuals as actors in changing monolingual linguistic landscapes in Vyborg, Russia. In D. Smakman, J. Nekvapil and K. Fedorova (eds) *Linguistic Choices in the Contemporary City: Postmodern Individuals in Urban Communicative Settings* (pp. 239–259). Abingdon: Routledge.

Barboza, R. and Borba, R. (2018) Linguistic landscapes as pornoheterotopias: (De)regulating gender and sexuality in the public toilet. *Linguistic Landscape* 4 (3), 257–277. https://doi.org/10.1075/ll.18005.vas

Barker, V., Giles, H., Noels, K., Duck, J., Hecht, M.L. and Clément, R. (2001) The English-only movement: A communication analysis of changing perceptions of language vitality. *Journal of Communication* 51 (1), 3–37. https://doi.org/10.1111/j.1460-2466.2001.tb02870.x

Barni, M. (2006) From statistical to geolinguistic data: Mapping and measuring linguistic diversity. *Nota di Lavoro* 53.2006. Milan: FEEM.

Barni, M. (2008) Mapping immigrant languages in Italy. In M. Barni and G. Extra (eds) *Mapping Linguistic Diversity in Multicultural Contexts* (pp. 217–243). Berlin: De Gruyter.

Barni, M. and Bagna, C. (2009) A mapping technique and the linguistic landscape. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 126–140). New York: Routledge.

Barni, M. and Bagna, C. (2010) Linguistic landscape and language vitality. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 3–18). Bristol: Multilingual Matters.

Barni, M. and Bagna, C. (2015) The critical turn in LL: New methodologies and new items in LL. *Linguistic Landscape* 1 (1–2), 6–18. https://doi.org/10.1075/ll.1.1-2.01bar

Barni, M., Bagna, C. and Bellinzona, M. (2020) Linguistic landscape and urban multilingualism. In E. Adamou and Y. Matras (eds) *The Routledge Handbook of Language Contact* (pp. 349–365). New York: Routledge.

Barrs, K. (2016) The typology of English in Japanese society: Learning from the linguistic landscape. *Proceedings of CLaSIC 2016*, pp. 21–29. See https://fass.nus.edu.sg/cls/wp-content/uploads/sites/32/2020/10/barrs_keith.pdf. Accessed 20 January 2022.

Barrs, K. (2020) Learning from the linguistic landscape: A project-based learning approach to investigating English in Japan. *Electronic Journal of Foreign Language Teaching* 17 (1) 7–15. https://e-flt.nus.edu.sg/wp-content/uploads/2020/09/barrs.pdf

Basque Government (2008) Decree about linguistic rights of consumers and users (dated 1 July 2008, 123/2008).

Baudinette, T. (2017) The spatialisation of desire in a Japanese gay district through signage. *ACME: An International Journal for Critical Geographies* 16 (3), 500–527.

Baudinette, T. (2018) Cosmopolitan English, traditional Japanese: Reading language desire into the signage of Tokyo's gay district. *Linguistic Landscape* 4 (3), 238–256. https://doi.org/10.1075/ll.18004.bau

Baumgardner, R.J. (2006) The appeal of English in Mexican commerce. *World Englishes* 25 (2), 251–266.

Beauchamp-Achim, S. and Bouchard, P. (1980) *Le français, langue des commerces et des services publics*. Quebec: Conseil supérieur de la langue française.

Becker, H. (1974) Photography and sociology. *Studies in Visual Communication* 1 (1), 3–26.

Begum, N. and Sinha, S. (2018) A study of the linguistic landscape of Patna, Bihar. *Indian Journal of Applied Linguistics* 44 (1–2), 67–82.

Begum, N. and Sinha, S. (2021) Mother tongue marginalisation: An empirical study on language visibility and vitality in public space of an Indian satellite town. *International Journal of Multilingualism* 18 (1), 41–58. https://doi.org/10.1080/14790718.2019.1591417

Bellés-Calvera, L. (2019) The linguistic landscape of the Valencian community: A comparative analysis of bilingual and multilingual signs in three different areas. *Languages* 4 (2), 38, 1–19. https://doi.org/10.3390/languages4020038

Bellinzona, M. (2018) Linguistic landscape e contesti educativi: Uno studio all'interno di alcune scuole italiane. *Lingue e Linguaggi* 25, 297–321. doi:10.1285/i22390359v25p297

Bellinzona, M. (2021) *Linguistic landscape: Panorami urbani e scolastici nel XXI secolo*. Rome: Franco Angeli.

Bello, W. (2020) Coronavirus and the death of 'connectivity'. *The Transnational Institute TNI*. (23 March 2020). See https://www.tni.org/en/article/coronavirus-and-the-death-of-connectivity (accessed 19 October 2020).

Ben-Rafael, E. (2009) A sociological approach to the study of linguistic landscapes. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 48–62). New York: Routledge.

Ben-Rafael, E. and Shohamy, E. (1998) *Linguistic Landscape and Multiculturalism: The Case of Israel*. Tel Aviv: Tel Aviv University.

Ben-Rafael, E. and Ben-Rafael, M. (2012) Le paysage linguistique belge: Un chaos intelligible. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscapes, Multilingualism and Social Change* (pp. 69–86). Berlin: Peter Lang.

Ben-Rafael, E. and Ben-Rafael, M. (2015) Linguistic landscapes in an era of multiple globalizations. *Linguistic Landscape* 1, 19–37.

Ben-Rafael, E. and Ben-Rafael, M. (2016) Berlin's linguistic landscapes: Two faces of globalization. In R.J. Blackwood, E. Lanza and H. Woldemariam (eds) *Negotiating and Contesting Identities in Linguistic Landscapes* (pp. 197–213). London: Bloomsbury.

Ben-Rafael, E. and Ben-Rafael, M. (2019) *Multiple Globalizations: Linguistic Landscapes in World-Cities*. Leiden: Brill.

Ben-Rafael, E., Shohamy, E., Amara, M.H. and Trumper-Hecht, N. (2001) Linguistic landscape and multiculturalism: A Jewish–Arab comparative study. Unpublished manuscript, Tel Aviv University.

Ben-Rafael, E., Shohamy, E., Amara, M.H. and Trumper-Hecht, N. (2006) Linguistic landscape as symbolic construction of the public space: The case of Israel. *International Journal of Multilingualism* 3, 7–30.

Ben-Rafael, E., Shohamy, E. and Barni, M. (2010) Introduction: An approach to an 'ordered disorder'. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. xi–xxviii). Bristol: Multilingual Matters.

Ben Said, S. (2011) Data triangulation as a resource in multilingual research: Examples from the linguistic landscape. In *Proceedings of the Conference on Doing Research in Applied Linguistics* (April) (pp. 62–70). Bangkok: School of Liberal Arts.

Ben Said, S. (2019) 'Chameleonic' English in Tunisia: A third-space language. *American Language Journal* 3 (1), 35–50. https://www.americanlanguagejournal.com/2019-vol-3-issue-1

Ben Said, S. (2021) Inconsistencies and adjustments in language policy: Evidence from the linguistic landscape. *TRANS-KATA: Journal of Language, Literature, Culture and Education* 2 (1), 1–14.

Ben Said, S. and Ong, T. (2019) Catering to multiple audiences: Language diversity in Singapore's Chinatown food stall displays. *Lublin Studies in Modern Languages and Literature* 43 (4), 31–48. https://doi.org/10.17951/lsmll.2019.43.4.31-48

Berdichevsky, N. (2014) *Modern Hebrew: The Past and Future of a Revitalized Language*. Jefferson, NC: McFarland and Company.

Berra, S. (2020) *Ceļvedis pilsētu tekstu izpētē. Populārzinātnisks izdevums valodniecībā*. Riga: LU Latviešu valodas institūts.

Bever, O. (2012) Linguistic landscapes and environmental print as a resource for language and literacy development in multilingual contexts. In M. Sanz and J.M. Igoa (eds) *Applying Language Science to Language Pedagogy: Contributions of Linguistics and Psycholinguistics to Second Language Teaching* (pp. 321–341). Newcastle-Upon-Tyne: Scholars Publishing.

Bever, O. and Richardson, D. (2020) Linguistic landscape as a tool for literacy-based language teaching and learning: Application for the foreign language classroom. In D. Malinowski and S. Tufi (eds) *Reterritorializing Linguistic Landscapes: Questioning Boundaries and Opening Spaces* (pp. 364–386). London: Bloomsbury.

Beyer, A.M. (2011) Improving student presentations: Pecha Kucha and just plain Power Point. *Teaching of Psychology* 38 (2), 122–126.

Bharadwaj, S. and Shukla, P. (2018) Linguistic landscaping in North-East India: A case study of Tezpur town in Assam. *Indian Journal of Applied Linguistics* 44 (1–2).

Biró, E. (2016) Learning schoolscapes in a minority setting. *Acta Universitatis Sapientiae, Philologica* 8 (2), 109–121. https://doi.org/10.1515/ausp-2016-0021

Blackwood, R. (2015) LL explorations and methodological challenges. Analysing France's regional languages. *Linguistic Landscape* 1 (1/2), 38–53. https://doi.org/10.1075/ll.1.1-2.03bla

Blackwood, R. (2016) Conflict, exclusion and dissent in the linguistic landscape. *Journal of Multilingual and Multicultural Development* 37 (6), 645–647. https://doi.org/10.1080/01434632.2016.1173874

Blackwood, R. and Tufi, S. (2012) Policies vs non-policies: Analysing regional languages and the national standard in the linguistic landscape of French and Italian Mediterranean cities. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 107–126). Basingstoke: Palgrave Macmillan.

Blackwood, R. and Macalister, J. (2019) *Multilingual Memories Monuments, Museums and the Linguistic Landscape*. London: Bloomsbury.

Blackwood, R., Lanza, E. and Woldemariam, H. (eds) (2016) *Negotiating and Contesting Identities in Linguistic Landscapes*. London: Bloomsbury.

Blackwood, R.J. (2011) The linguistic landscape of Brittany and Corsica: A comparative study of the presence of France's regional languages in the public space. *Journal of French Language Studies* 21 (2), 111–130. https://doi.org/10.1080/01434632.2016.1173874

Blackwood, R.J. (2018) The linguistic landscape creating a new sense of community: Guadeloupean Creole, the general strike of 2009 and an emergent identity. In A. Peck, C. Stroud and Q. Williams (eds) *Making Sense of People and Place in Linguistic Landscapes* (pp. 107–122). London: Bloomsbury.

Blackwood, R.J. (2019) Language, images, and Paris Orly airport on Instagram: Multilingual approaches to identity and self-representation on social media. *International Journal of Multilingualism* 16 (1), 7–24. https://doi.org/10.1080/14790718.2018.1500257

Blackwood, R.J. and Tufi, S. (2015) *The Linguistic Landscape of the Mediterranean: French and Italian Coastal Cities*. Basingstoke: Palgrave Macmillan.

Bleakly, E.W. (2022) Upper Sorbian in Budyšin/Bautzen: Examples from Bautzen's linguistic landscape. *Language: Codification, Competence, Communication* 1–2 (6–7), 20–39.

Block, D. (2017) Political economy in applied linguistics research. *Language Teaching* 50 (1), 32–64.

Blommaert, J. (2009) A market of accents. *Language Policy* 8 (3), 243–259. https://doi.org/10.1007/s10993-009-9131-1

Blommaert, J. (2013) *Ethnography, Superdiversity and Linguistic Landscapes: Chronicles of Complexity*. Bristol: Multilingual Matters.

Blommaert, J. and Backus, A. (2013) Superdiverse repertoires and the individual. In I. de Saint-Georges and J.J. Weber (eds) *Multilingualism and Multimodality: Current Challenges for Educational Studies* (pp. 11–32). Rotterdam: Sense Publishers.

Blommaert, J. and Maly, I. (2016) Ethnographic linguistic landscape analysis and social change: A case study. In K. Arnaut, J. Blommaert, B. Rampton and M. Spotti (eds) *Language and Superdiversity* (pp. 191–211). Abingdon: Routledge.

Blommaert, J. and Maly, I. (2019) Invisible lines in the online-offline linguistic landscape. (Tilburg Papers in Culture Studies; No. 223). Tilburg University.

Bock, Z. and Stroud, C. (2019) Zombie landscapes: Apartheid traces in the discourses of young South Africans. In A. Peck, C. Stroud and Q. Williams (eds) *Making Sense of People and Place in Linguistic Landscapes* (pp. 11–28). London: Bloomsbury Publishing.

Bogatto, F. and Hélot, C. (2010) Linguistic landscape and language diversity in Strasbourg: The 'Quartier Gare'. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 275–291). Bristol: Multilingual Matters.

Boivin, N. (2021) Homescape: Agentic space for transmigrant families multisensory discourse of identity. *Linguistic Landscape* 7 (1), 37–59.

Bolton, K. (2012) World Englishes and linguistic landscapes. *World Englishes* 31 (1), 30–33.

Bolton, K., Botha, W. and Lee, S.L. (2020) Linguistic landscapes and language contact. In R. Hickey (ed.) *The Handbook of Language Contact* (2nd edn; pp. 281–300). Malden, MA: John Wiley and Sons.

Bosworth, Y. (2019) Gender inclusivity in the linguistic landscape of Parisian universities. *The French Review* 93 (2), 175–196.

Bouchard, P. (2012) *La langue d´affichage commercial sur l´Île de Montréal en 2010*. Quebec: Gouvernement du Québec.

Bourhis, R.Y. (ed.) (1984) *Conflict and Language Planning in Quebec*. Clevedon: Multilingual Matters.

Bourhis, R.Y., Giles, H. and Rosenthal, D. (1981) Notes on the construction of a 'subjective vitality questionnaire' for ethnolinguistic groups. *Journal of Multilingual and Multicultural Development* 2 (2), 145–155. https://doi.org/10.1080/01434632.1981.9994047

Bourhis, R.Y., Sachdev, I., Ehala, M. and Giles, H. (2019) Assessing 40 years of group vitality research and future directions. *Journal of Language and Social Psychology* 38 (4), 409–422. https://doi.org/10.1177/0261927X19868974

Bracalenti, R., Gorter, D., Catia, I., Santonico, F. and Valente, C. (eds) (2009) *Roma multietnica (I cambiamenti nel panorama linguistico/changes in the linguistic landscape)*. Rome: Edup SRL.

Bradley, J. (2017) Translanguaging engagement: Dynamic multilingualism and university language engagement programmes. *Bellaterra Journal of Teaching and Learning Language and Literature* 10 (4), 9–31. https://doi.org/10.5565/rev/jtl3.759

Bray, Z. (2000) Boundaries and Identities on the Franco-Spanish Frontier. A working paper. Queen's University Belfast.

Brinkmann, L.M. and Melo-Pfeifer, S. (2022) Teachers' perspectives on the use of linguistic landscapes to encourage multilingual pedagogies in the foreign language classroom. In L. Eibensteiner, A. Kropp, J. Müller-Lancé and C. Schlaak (eds) *Neue Wege des Französischunterrichts: Linguistic Landscaping und Mehrsprachigkeitsdidaktik im digitalen Zeitalter* (pp. 199–225). Tübingen: Narr Francke Attempto Verlag.

Brinkmann, L.M., Duarte, J. and Melo-Pfeifer, S. (2022) Promoting plurilingualism through linguistic landscapes: A multi-method and multisite study in Germany and the Netherlands. *TESL Canada Journal* 38 (2), 88–112. https://doi.org/10.18806/tesl.v38i2.1358

Brown, K.D. (2005) Estonian schoolscapes and the marginalization of regional identity in education. *European Education* 37, 78–89.

Brown, K.D. (2012) The linguistic landscape of educational spaces: Language revitalization and schools in southeastern Estonia. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 281–298). Basingstoke: Palgrave Macmillan.

Brown, K.D. (2018) Shifts and stability in schoolscapes: Diachronic considerations of southeastern Estonian schools. *Linguistics and Education* 44, 12–19.

Brown, N.A. (2007) Status language planning in Belarus: An examination of written discourse in public spaces. *Language Policy* 6 (2), 281–301. https://doi.org/10.1007/s10993-007-9048-5

Bruthiaux, P. (2003) Squaring the circles: Issues in modeling English worldwide. *International Journal of Applied Linguistics* 13 (2), 159–178. https://doi.org/10.1111/1473-4192.00042

Bruyèl-Olmedo, A. and Juan-Garau, M. (2009) English as a lingua franca in the linguistic landscape of the multilingual resort of S'Arenal in Mallorca. *International Journal of Multilingualism* 6 (4), 386–411. https://doi.org/10.1080/14790710903125010

Bruyèl-Olmedo, A. and Juan-Garau, M. (2015) Shaping tourist LL: Language display and the sociolinguistic background of an international multilingual readership. *International Journal of Multilingualism* 12 (1), 51–67. https://doi.org/10.1080/14790718.2013.827688

Bruyèl-Olmedo, A. and Juan-Garau, M. (2020) Coexisting varieties of English in the linguistic landscape of tourism: the Bay of Palma. *Journal of Multilingual and Multicultural Development* 41 (2), 157–174. https://doi.org/10.1080/01434632.2019.1606226

Buchstaller, I. and Alvanides, S. (2017) Mapping the linguistic landscapes of the Marshall Islands. *Journal of Linguistic Geography* 5 (2), 67–85. https://doi.org/10.1017/jlg.2017.4

Buchstaller, I. and Alvanides, S. (2019) Investigating the bilingual landscape of the Marshall Islands. In M. Pütz and N. Mundt (eds) *Expanding the Linguistic Landscape: Linguistic Diversity, Multimodality and the Use of Space as a Semiotic Resource* (pp. 203–228). Bristol: Multilingual Matters.

Budarina, L. (2017) Cosmopolitan Berlin? Interpreting the linguistic landscape of a cosmopolitan city. *Scripta Neophilologica Posnaniensia* (17), 77–88.

Burr, S. (2021) Linguistic landscape signs in e-textbooks: Teaching language as a compass for exploring multimodal texts, multilingualism, and digital resources In L. Daniela (ed.) *Human, Technologies and Quality of Education, 2021* (pp. 937–952). Riga: University of Riga. https://doi.org/10.22364/htqe.2021.74

Burr, S. (2022) Linguistic landscape signs in first-language learning materials: From passively illustrative function to meaningful learning experiences. In E. Krompák, V.

Fernández-Mallat and S. Meyer (eds) *Linguistic Landscapes and Educational Spaces* (pp. 232–257). Bristol: Multilingual Matters.

Burwell, C. and Lenters, K. (2015) Word on the street: Investigating linguistic landscapes with urban Canadian youth. *Pedagogies: An International Journal* 10 (3), 201–221. https://doi.org/10.1080/1554480X.2015.1029481

Bwenge, C. (2009) Language choice in Dar es Salaam's billboards. In F. McLaughlin (ed.) *The Languages of Urban Africa* (pp. 152–177). London: Bloomsbury.

Bwenge, C. (2012) English in Tanzania: A linguistic cultural perspective. *International Journal of Language, Translation and Intercultural Communication* 1, 167–182. https://doi.org/10.12681/ijltic.18

Calvet, L.J. (1990) Des mots sur les murs. Une comparaison entre Paris et Dakar. In R. Chaudenson (ed.) *Des langues et des villes (Actes du colloque international à Dakar, du 15 au 17 décembre 1990)* (pp. 73–83). Paris: Didier Érudition.

Calvet, L.J. (2006) *Towards an Ecology of World Languages*. Cambridge: Polity Press.

Calvi, M.V. (2018) Español e Italiano en el paisaje lingüístico de Milán ¿Traducción, mediación o translanguaging? *Lingue e Linguaggi* 25, 145–172. https://doi.org/10.1285/i22390359v25p145

Canagarajah, S. (2013) *Translingual Practice: Global Englishes and Cosmopolitan Relations*. Abingdon: Routledge.

Canakis, C. (2016) Snapshots of the Balkans through ethnographic investigation of the linguistic landscape. *Punctum. International Journal of Semiotics* 2 (2), 24–65. https://doi.org/10.18680/hss.2015.0017

Canakis, C. (2018) Contesting identity in the linguistic landscape of Belgrade: An ethnographic approach. *Belgrade English Language and Literature Studies* 10 (1), 229–258. https://doi.org/10.18485/bells.2018.10.11

Canakis, C. (2019) Further advances in linguistic landscape research: Language and identity-work in public space. *Punctum* 5 (1), 264–270.

Canakis, C. and Kersten-Pejanić, R. (2016) Spray-canned discourses: Reimagining gender, sexuality, and citizenship through linguistic landscapes in the Balkans. In S. Goll, M. Mlinarić and J. Gold (eds) *Minorities Under Attack: Othering and Right-Wing Extremism in Southeast European Societies* (pp. 129–160). Wiesbaden: Harrassowitz Verlag.

Carens, J.H. (2000) *Culture, Citizenship and Community*. New York: Oxford University Press.

Carr, J.R.C. (2019) Linguistic landscapes. In *Oxford Bibliographies Online in Linguistics*. New York: Oxford University Press. https://doi.org/10.1093/OBO/9780199772810-0251

Carr, J.R.C. (2021) Reframing the question of correlation between the local linguistic population and urban signage. In M.F. Ramos Pellicia and P. Gubitosi (eds) *Linguistic Landscape in the Spanish-Speaking World* (pp. 239–265). Phildelphia, PA: Benjamins.

Carson, L., McMonagle, S. and Murphy, D. (2015) *Multilingualism in Dublin. LUCIDE City Report*. London: LSE Academic Publishing.

Carter, B.T. and Luke, S.G. (2020) Best practices in eye tracking research. *International Journal of Psychophysiology* 155, 49–62.

Cashmore, E., Cleland, J. and Dixon, K. (2018) *Screen Society*. Basingstoke: Palgrave Macmillan.

Castillo Lluch, M., Kailuweit, R. and Pusch, C.D. (eds) (2019) *Linguistic Landscape Studies: The French Connection*. Freiburg: Rombach Verlag.

Cenoz, J. and Gorter, D. (2003) The Linguistic Landscape of Erregezainen/Escolta Real. Paper presented at the Third Conference on Third Language Acquisition and Trilingualism, September, Tralee, Ireland.

Cenoz, J. and Gorter, D. (2006) Linguistic landscape and minority languages. *International Journal of Multilingualism* 3, 67–80. https://doi.org/10.1080/14790710608668386

Cenoz, J. and Gorter, D. (2008) Linguistic landscape as an additional source of input in second language acquisition. *IRAL, International Review of Applied Linguistics in Language Teaching* 46 (3), 257–276. https://doi.org/10.1515/IRAL.2008.012

Cenoz, J. and Gorter, D. (2009) Language economy and linguistic landscape. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 55–69). New York: Routledge.

Cenoz, J. and Gorter, D. (2011) The perception of the linguistic landscape by students in two multilingual contexts. *Uporabno Jezikoslovje/Applied Linguistics Journal of the Slovenian Association of Applied Linguistics* 9–10, 264–279.

Cenoz, J. and Gorter, D. (2015) Towards a holistic approach in the study of multilingual education. In J. Cenoz and D. Gorter (eds) *Multilingual Education: Between Language Learning and Translanguaging* (pp. 1–15). Cambridge: Cambridge University Press.

Cenoz, J. and Gorter, D. (2017) Minority languages and sustainable translanguaging: Threat or opportunity? *Journal on Multilingual and Multicultural Development* 38 (10), 901–912. https://doi.org/10.1080/01434632.2017.1284855

Cenoz, J. and Gorter, D. (2021) *Pedagogical Translanguaging*. Cambridge: Cambridge University Press.

Cenoz, J., Leonet, O. and Gorter, D. (2022) Developing cognate awareness through pedagogical translanguaging. *International Journal of Bilingual Education and Bilingualism* 25 (8), 2759–2773.

Chapelle, C.A. (2020) Linguistic landscape images and Québec's cultural narrative in French textbooks. In D. Malinowski, H.H. Maxim and S. Dubreil (eds) *Language Teaching in the Linguistic Landscape* (pp. 43–67). Dordrecht: Springer.

Chen, S.Y. (2014) Bilingual advertising in Melbourne Chinatown. *Journal of International Students* 4 (4), 389–396. https://www.ojed.org/index.php/jis/article/view/457

Chenhui, Z. and Ruilin, Z. (2020) Study on linguistic landscape of Macao in the perspective of CIS. *International Journal of Linguistics, Literature, and Translation* 3 (8), 64–81. https://doi.org/10.32996/ijllt.2020.3.8.7

Chern, C. and Dooley, K. (2014) Learning English by walking down the street. *ELT Journal* 68 (2), 113–123. https://doi.org/10.1093/elt/cct067

Chesnut, M., Lee, V. and Schulte, J. (2013) The language lessons around us: Undergraduate English pedagogy and linguistic landscape research. *English Teaching: Practice and Critique* 12 (2), 102–120.

Choi, J., Tatar, B. and Kim, J. (2019) Bilingual signs at an 'English only' Korean university: Place-making and 'global' space in higher education. *International Journal of Bilingual Education and Bilingualism* 24 (9), 1431–1444.

Choksi, N. (2015) Surface politics: Scaling multiscriptality in an Indian village market. *Journal of Linguistic Anthropology* 25 (1), 1–24. https://doi.org/10.1111/jola.12070

Chun, C.W. (2014) Mobilities of a linguistic landscape at Los Angeles City Hall Park. *Journal of Language and Politics* 13 (4), 1569–2159. https://doi.org/10.1075/jlp.13.4.04chu

Cidade de São Paulo (2021) Lei Cidade Limpa completa 15 anos. See https://www.capital.sp.gov.br/noticia/lei-cidade-limpa-completa-15-anos (accessed 31 October 2021).

Cindark, I. and Ziegler, E. (2016) Mehrsprachigkeit im Ruhrgebiet: Zur Sichtbarkeit sprachlicher Diversität in Dortmund. In S. Ptashnyk, R. Beckert, P. Wolf-Farré and M. Wolny (eds) *Gegenwärtige Sprachkontakte im Kontext der Migration* (pp. 133–156). Heidelberg: Winter.

Claus, R.J. (2002) The value of signs for your business. *Signline* 38, 1–8. See https://www.stewartsigns.com/assets/whitepapers/signline_business.pdf (accessed 11 October 2021).

Clay, V., König, P. and Koenig, S. (2019) Eye tracking in virtual reality. *Journal of Eye Movement Research* 12 (1), 3. https://doi.org/10.16910/jemr.12.1.3

Clemente, M., Andrade, A.I. and Martins, F. (2012) Learning to read the world, learning to look at the linguistic landscape: A primary school study. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscapes, Multilingualism, and Social Change* (pp. 267–285). Berlin: Peter Lang.

Clemente, M.R., Vieira, R., Martins, F. and Andrade, A.I. (2013) Linguistic diversity in Aveiro, Portugal: Exploring linguistic landscape methodologies in the 'Beira Mar'

neighborhood. *Internet Latent Corpus Journal* 3 (1), 116–133. https://doi.org/10.34624/ilcj.v3i1.14854

Coetzee-Van Rooy, A.S. (2008) From the expanding to the outer circle: South Koreans learning English in South Africa. *English Today* 24 (4), 3–10.

Cohen, A.D. (2015) Strategies for the super-multilinguals in an increasingly global world. In B. Spolsky, O. Inbar-Lourie and M. Tannenbaum (eds) *Challenges for Language Education and Policy* (pp. 270–280). New York: Routledge.

Colby, I.C. (2018) *The Handbook of Policy Practice*. New York: Oxford University Press.

Collier, J. (1967) *Visual Anthropology: Photography as a Research Method*. New York: Holt, Rinehart &Winston.

Collins, J. and Slembrouck, S. (2004) Reading shop windows in globalized neighborhoods: Multilingual literacy practices and indexicality. *Working Papers on Language, Power & Identity* 21. University of Ghent.

Coluzzi, P. (2009) The Italian linguistic landscape: The cases of Milan and Udine. *International Journal of Multilingualism* 6, 298–312.

Coluzzi, P. (2011) Majority and minority language planning in Brunei Darussalam. *Language Problems and Language Planning* 35 (3), 222–240.

Coluzzi, P. (2012) Multilingual societies vs monolingual states: The linguistic landscape of Italy and Brunei Darussalam. In D. Gorter, L. Van Mensel and H.F. Marten (eds) *Minority Languages in the Linguistic Landscape* (pp. 225–242). Basingstoke: Palgrave Macmillan.

Coluzzi, P. (2020) Signs in the linguistic landscape as markers of an ethnic group's identity and ownership. *Southeast Asia: A Multidisciplinary Journal* 20 (1), 5–15. https://fass.ubd.edu.bn/SEA/vol20/SEA-v20-signs-linguistic-landscape.pdf

Coluzzi, P. and Kitade, R. (2015) The languages of places of worship in the Kuala Lumpur area: A study on the 'religious' linguistic landscape in Malaysia. *Linguistic Landscape* 1 (3), 243–267. https://doi.org/10.1075/ll.1.3.03col

Comajoan Colomé, L. (2013) El paisaje lingüístico en Cataluña: caracterización y percepciones del paisaje visual y auditivo en una avenida comercial de Barcelona. *Revista Internacional de Lingüistica Iberamericana* 11 (1), 63–68.

Comajoan Colomé, L. and Long, E. (2012) The linguistic landscape of three streets in Barcelona: Patterns of language visibility in public space. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 183–203). Basingstoke: Palgrave Macmillan.

Conteh, J. and Meier, G. (2014) *The Multilingual Turn in Languages Education: Opportunities and Challenges*. Bristol: Multilingual Matters.

Cook, V. (2013) The language of the street. *Applied Linguistics Review* 4 (1), 43–81. https://doi.org/10.1515/applirev-2013-0003

Cook, V. (2015) Meaning and material in the language of the street. *Social Semiotics* 25 (1), 81–109.

Cook, V. (2022) *The Language of the English Street Sign*. Bristol: Multilingual Matters.

Cooper, R.L. (1989) *Language Planning and Social Change*. Cambridge: Cambridge University Press.

Corbeil, J.C. (1980) *L'aménagement linguistique du Québec*. Montreal: Guérin.

Cormier, G. (2019) Translanguaging and linguistic landscapes: A study of Manitoban schoolscapes. *OLBI Working Papers/Cahiers de l ILOB* 10, 87–105. https://doi.org/10.18192/olbiwp.v10i0.3236

Correa, D. and Shohamy, E. (2018) Commodification of women's breasts: Internet sites as modes of delivery to local and transnational audiences. *Linguistic Landscape* 4 (3), 298–319.

Costley, T., Kula, N. and Marten, L. (2022) Translanguaging spaces and multilingual public writing in Zambia: Tracing change in the linguistic landscape of Ndola on the Copperbelt. *Journal of Multilingual and Multicultural Development* 1–21. https://doi.org/10.1080/01434632.2022.2086985

Coulmas, F. (2009) Linguistic landscaping and the seed of the public sphere. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 13–24). New York: Routledge.

Council of Europe (1998) *European Charter for Regional or Minority Languages*. Council of Europe.

Coupland, N. (2012) Bilingualism on display: The framing of Welsh and English in Welsh public spaces. *Language in Society* 41, 1–27.

Coupland, N. and Garrett, P. (2010) Linguistic landscapes, discursive frames and metacultural performance: The case of Welsh Patagonia. *International Journal of the Sociology of Language* 205, 7–36.

Crystal, D. (1997) *English as a Global Language* (2nd edn. [2012]). New York: Cambridge University Press.

Cunningham, U. and King, J. (2021) Information, education, and language policy in the linguistic landscape of an international airport in New Zealand. In G. Niedt and C. Seals (eds) *Linguistic Landscapes beyond the Language Classroom* (pp. 97–115). New York: Bloomsbury.

CUNY-NYSIEB (eds) (2021) *Translanguaging and Transformative Teaching for Emergent Bilingual Students. Lessons from the CUNY-NYSIEB (City University of New York-New York State Initiative on Emergent Bilinguals) Project*. London: Routledge.

Curtin, M. (2009) Languages on display: Indexical signs, identities and the linguistic landscape of Taipei. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 221–237). New York: Routledge.

Dagenais, D., Walsh, N., Armand, F. and Maraillet, E. (2008) Collaboration and co-construction of knowledge during language awareness activities in Canadian elementary school. *Language Awareness* 17 (2), 139–155.

Dagenais, D., Moore, D., Sabatier, C., Lamarre, P. and Armand, F. (2009) Linguistic landscape and language awareness. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 253–269). New York: Routledge.

Dailey, R.M., Giles, H. and Jansma, L.L. (2005) Language attitudes in an Anglo-Hispanic context: The role of the linguistic landscape. *Language & Communication* 25 (1), 27–38. https://doi.org/10.1016/j.langcom.2004.04.004

Dal Negro, S. (2009) Local policy modeling the linguistic landscape. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 206–218). New York: Routledge.

Daly, N. (2018) The linguistic landscape of English–Spanish dual language picturebooks. *Journal of Multilingual and Multicultural Development* 39 (6), 556–566. https://doi.org/10.1080/01434632.2017.1410163

Daly, N. (2019) The linguistic landscape of multilingual picturebooks. *Linguistic Landscape* 5 (3), 281–301. https://doi.org/https://doi.org/10.1075/ll.18014.dal

Danielewicz-Betz, A. and Graddol, D. (2014) Varieties of English in the urban landscapes of Hong Kong and Shenzhen: Changing English landscapes around a Chinese border. *English Today* 30 (3), 22–32. https://doi.org/10.1017/S0266078414000236

Dant, T. (2005) *Materiality and Society*. Buckingham: Open University Press.

Darquennes, J. (2013) Current issues in LPP research and their impact on society. *AILA Review* 26, 11–23.

Dasgupta, P. (2002) The public space and the overt imagination. In N.H. Itagi and S.K. Singh (eds) *Linguistic Landscaping in India with Particular Reference to the New States* (pp. 1–6). Mysore: Central Institute of Indian Languages.

Da Silva, A.M. (2014) Upon the prevalence of English on billboard advertisements: Analyzing the role of English in Indonesian contexts. *TEFLIN Journal* 25 (1), 33–61.

Daveluy, M. and Ferguson, J. (2009) Scripted urbanity in the Canadian north. *Journal of Linguistic Anthropology* 19, 78–100.

David, M.K. and Manan, S.A. (2015) Language ideology and the linguistic landscape: A study in Petaling Jaya, Selangor, Malaysia. *Linguistics and the Human Sciences* 11 (1), 1–16.

Davidson, H. (2019) The role of French in the linguistic landscape of the German-speaking community of Belgium. In M. Castillo Lluch, R. Kailuweit and C.D. Pusch (eds) *Linguistic Landscape Studies: The French Connection* (pp. 95–116). Freiburg: Rombach Verlag.

De los Reyes, R.A. (2014) Language of 'order': English in the linguistic landscape of two major train stations in the Philippines. *Asian Journal of English Language Studies* (AJELS) 2, 24–51.

De Saint Léger, D. and Mullan, K. (2021) New Caledonia: A semiotic analysis of the landscape as an opportunity for learning. In G. Niedt and C. Seals (eds) *Linguistic Landscapes beyond the Language Classroom* (pp. 57–75). New York: Bloomsbury.

De Swaan, A. (2001) *Words of the World: The Global Language System*. Cambridge: Polity Press.

De Wilde, J., Verhoene, J., Tondeur, J. and Van Praet, E. (2022) 'Go in practice': Linguistic landscape and outdoor learning. In E. Krompák, V. Fernández-Mallat and S. Meyer (eds) *Linguistic Landscapes and Educational Spaces* (pp. 214–231). Bristol: Multilingual Matters.

Debras, C. (2019) Political graffiti in May 2018 at Nanterre University: A linguistic ethnographic analysis. *Discourse and Society* 30 (5), 441–464. https://doi.org/10.1177/0957926519855788

Demaj, U. and Vandenbroucke, M. (2016) Post-war Kosovo landscapes in Pristina: Discrepancies between language policy and urban reality. *Nationalities Papers* 44 (5), 804–825. https://doi.org/10.1080/00905992.2016.1187592

Desautels, E. (2019) *Langue d'accueil et langue de service dans les commerces de l'île de Montréal en 2017: point de vue des observatrices et des observateurs*. Quebec: Office québécois de la langue française.

Dhongde, R.V. (2002) Linguistic landscaping and road-side advertisements. In N.H. Itagi and S.K. Singh (eds) *Linguistic Landscaping in India with Particular Reference to the New States* (pp. 69–85). Mysore: Central Institute of Indian Languages.

Dimova, S. (2007) English shop signs in Macedonia. *English Today* 23, 18–24.

Ding, S.L., Kim, H. and Kang, Y. (2020) Imagined homogeneity: Identity and geopolitical and geoeconomic influences in the linguistic landscape of Seoul. *Lingua* 244 (2019), 102851. https://doi.org/10.1016/j.lingua.2020.102851

Dkhar, G.D. and Singh, S.K. (2018) Linguistic landscaping, language ideology and language policy: A case study of Meghalaya. *International Journal of Applied Linguistics* 44 (1–2), 113–131.

Dowling, T. (2012) Translated for the dogs: Language use in Cape Town signage. *Language Matters* 43 (2), 240–262. https://doi.org/10.1080/10228195.2012.688763

Dowling, T. (2014) 'Welcome to proper mall': The language on signs in Diepsloot, Johannesburg. *South African Journal of African Languages* 34 (1), 87–95. https://doi.org/10.1080/02572117.2014.949472

Downie, A. (2008) Sao Paulo sells itself. *Time* magazine. 8 February. See https://content.time.com/time/specials/2007/article/0,28804,1709961_1711305_1860002,00.html

Dray, S. (2010) Ideological struggles on signage in Jamaica. In A. Jaworski and C. Thurlow (eds) *Semiotic Landscapes: Language, Image, Space* (pp. 102–122). London: Continuum.

Dressler, R. (2015) Signgeist: Promoting bilingualism through the linguistic landscape of school signage. *International Journal of Multilingualism* 12 (1), 128–145. https://doi.org/10.1080/14790718.2014.912282

Du Plessis, T. (2009) Language visibility and the transformation of geographical names in South Africa. *Language Matters* 40 (2), 215–238. https://doi.org/10.1080/10228190903188542

Du Plessis, T. (2010) Bloemfontein/Mangaung, 'city on the move'. Language management and transformation of a non-representative linguistic landscape. In E. Shohamy, E.

Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 74–95). Bristol: Multilingual Matters.

Du Plessis, T. (2011) Language visibility and language removal: A South African case study in linguistic landscape change. *Communicatio: South African Journal for Communication Theory and Research* 37 (2), 194–224. https://doi.org/10.1080/02500167.2011.604170

Du Plessis, T. (2012) The role of language policy in linguistic landscape changes in a rural area of the Free State Province of South Africa. *Language Matters* 43 (2), 263–282. https://doi.org/10.1080/10228195.2012.741098

Dubreil, S. and Thorne, S.L. (2017) Introduction: Social pedagogies and entwining language with the world. In S. Dubreil and L. Thorne (eds) *Engaging the World: Social Pedagogies and Language Learning* (pp. 1–11). Boston, MA: Cengage.

Dunlevy, D.A. (2012) Linguistic policy and linguistic choice: A study of the Galician linguistic landscape. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscape, Multilingualism and Social Change* (pp. 53–68). Frankfurt: Peter Lang.

Dunlevy, D.A. (2020) Blurred lines: The effect of regional borders on the LL in Northern Spain. In D. Malinowski and S. Tufi (eds) *Reterritorializing Linguistic Landscapes: Questioning Boundaries and Opening Spaces* (pp. 236–261). London: Bloomsbury.

Dunn, J., Coupe, T. and Adams, B. (2020) Measuring linguistic diversity during Covid-19. *Proceedings of the 4th Workshop on NLP and Computational Social Science*. doi:10.48550/arXiv.2104.01290

Eckert, P. (2012) Three waves of variation study: The emergence of meaning in the study of variation. *Annual Review of Anthropology* 41, 87–100.

Eckert, P. (2021) Third wave variation studies. See web.stanford.edu/~eckert/thirdwave.html (accessed 21 March 2022).

Edelman, L. (2006) The linguistic landscape of Kalverstraat: A pilot study. In T. Koole, J. Nortier and B. Tahitu (eds) *Artikelen van de Vijfde sociolinguïstische conferentie* (pp. 148–155). Delft: Eburon.

Edelman, L. (2009) What's in a name? Classification of proper names by language. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 141–154). New York: Routledge.

Edelman, L.J. (2010) *Linguistic Landscapes in the Netherlands: A Study of Multilingualism in Amsterdam and Friesland*. Utrecht: LOT Utrecht.

Edelman, L. (2014) The presence of minority languages in linguistic landscapes in Amsterdam and Friesland (the Netherlands). *International Journal of the Sociology of Language* 228, 7–28. https://doi.org/10.1515/ijsl-2014-0003

Edwards, J. (2010) *Minority Languages and Group Identity: Cases and Categories*. Amsterdam: Benjamins.

EHU-EMME (2021) European Master in Multilingualism and Education. See https://www.ehu.eus/en/web/master/master-multilingualism-education (accessed 11 October 2021).

Eibensteiner, L. (2022) Förderung von Sprach(en)bewusstheit durch den Einbezug herkunftsbedingter Mehrsprachigkeit im Französischunterricht: Potenziale der Linguistic-Landscape-Forschung. In L. Eibensteiner, A. Kropp, J. Müller-Lancé and C. Schlaak (eds) *Neue Wege des Französischunterrichts: Linguistic Landscaping und Mehrsprachigkeitsdidaktik im digitalen Zeitalter* (pp. 227–255). Tübingen: Narr Francke Attempto Verlag.

Eibensteiner, L., Kropp, A., Müller-Lancé, J. and Schlaak, C. (eds) *Neue Wege des Französischunterrichts: Linguistic Landscaping und Mehrsprachigkeitsdidaktik im digitalen Zeitalter*. Tübingen: Narr Francke Attempto Verlag.

Elola, I. and Prada, J. (2020) Developing critical sociolinguistic awareness through linguistic landscapes in a mixed classroom: The case of Spanish in Texas. In D. Malinowski, H.H. Maxim and S. Dubreil (eds) *Language Teaching in the Linguistic Landscape* (pp. 223–250). Dordrecht: Springer.

El-Yasin, M.K. and Mahadin, R.S. (1996) On the pragmatics of shop signs in Jordan. *Journal of Pragmatics* 26, 407–416.

Ertep, H. (2009) Chaos or homogenization? The role of shop signs in transforming urban fabric in Beyoğlu, Istanbul. *Visual Communication* 8 (3), 263–272. https://doi.org/10.1177/1470357209106468

Evans, J. and Jones, P. (2011) The walking interview: Methodology, mobility and place. *Applied Geography* 31 (2), 849–58. https://doi.org/10.1016/j.apgeog.2010.09.005

Extra, G. and Gorter, D. (eds) (2008) *Multilingual Europe: Facts and Policies*. Berlin: De Gruyter Mouton.

Fabiszak, M. and Buchstaller, I. (eds) (2021) Ideology and commemoration in the urban scape. *Linguistics Vanguard* (Special Issue) 7, 5.

Fakhiroh, Z. and Rohmah, Z. (2018) Linguistic landscape in Sidoarjo city. *NOBEL: Journal of Literature and Language Teaching* 9 (2), 96–116.

Fedorova, K. (2017) Manzhouli or Manchzhuriya? Linguistic and cultural hybridization in the border city. In F. Dervin and R. Machart (eds) *Intercultural Communication with China* (pp. 91–110). Singapore: Springer.

Fedorova, K. and Baranova, V. (2022) 'Non-identical twins': Monolingual bias and linguistic landscapes of the twin cities of Ivangorod/Narva. In D. Smakman, J. Nekvapil and K. Fedorova (eds) *Linguistic Choices in the Contemporary City* (pp. 213–238). Abingdon: Routledge.

Fekede, A. and Gemechu, T. (2016) An analysis of linguistic landscape of selected towns in Oromia: An ethnolinguistic vitality study. *Journal of Languages and Culture* 7 (1), 1–9. https://doi.org/10.5897/JLC2016.0329

Feng, Y. (2007) Shop signs and visual culture in Republican Beijing. *European Journal of East Asian Studies* 6 (2), 103–128. https://doi.org/10.1163/157006107X197682

Ferenčík, M. (2012) English in the glocalized world: English language profile of a local linguistic landscape from a pluriparadigmatic perspective. In M. Ferenčík and K. Bednárová-Gibová (eds) *Language, Literature and Culture in a Changing Transatlantic World II: Part I: Linguistics, Translation and Cultural Studies* (pp. 36–57). Prešov: Prešovská univerzita, Filozofická fakulta. https://www.pulib.sk/web/kniznica/elpub/dokument/Ferencik3/subor/Ferencik.pdf

Ferenčík, M. (2018) Im/politeness on the move: A study of regulatory discourse practices in Slovakia's centre of tourism. *Journal of Pragmatics* 134, 183–198. https://doi.org/10.1016/j.pragma.2018.05.011

Ferguson, J. and Sidorova, L. (2018) What language advertises: Ethnographic branding in the linguistic landscape of Yakutsk. *Language Policy* 17 (1), 23–54. https://doi.org/10.1007/s10993-016-9420-4

Fishman, J.A. (1991) *Reversing Language Shift*. Clevedon: Multilingual Matters.

Fleitas, J. (2003) The power of words: Examining the linguistic landscape of pediatric nursing. *American Journal of Maternal Child Nursing* 28 (6), 384–388.

Flusser, V. (1983) *Towards a Philosophy of Photography*. London: Reaktion Books.

Foucault, M. (1986) Other spaces: The principles of heterotopia. *Lotus International* 48/49, 9–17.

Foust, E. and Fuggle, S. (eds) (2011) *Word on the Street: Reading, Writing and Inhabiting Public Space*. London: Institute of Germanic and Romance Studies.

Franco Rodriguez, J.M. (2009) Interpreting the linguistic traits of linguistic landscapes as ethnolinguistic vitality: Methodological approach. *Revista Electrónica de Lingüística Aplicada* (8), 1–15.

Franco Rodriguez, J.M. (2011) Linguistic landscape and language maintenance: The case of Los Angeles and Miami-Dade counties. In M. Morris (ed.) *Culture and Language: Multidisciplinary Case Studies* (pp. 69–122). Frankfurt: Peter Lang.

Frekko, S.E. (2009) Signs of respect: Neighborhood, public, and language in Barcelona. *Journal of Linguistic Anthropology* 19 (2), 227–245. https://doi.org/10.1111/j.1548-1395.2009.01032.x

Friedrich, P. (2002) English in advertising and brand naming: Sociolinguistic considerations and the case of Brazil. *English Today* 18 (3), 21–28. https://doi.org/10.1017/S0266078402003048

Gade, D.W. (2003) Language, identity, and the scriptorial landscape in Québec and Catalonia. *Geographical Review* 93 (4), 429–448. https://doi.org/10.1111/j.1931-0846.2003.tb00041.x

Gaiser, L. and Matras, Y. (2016) *The Spatial Construction of Civic Identities: A Study of Manchester's Linguistic Landscapes*. Manchester: University of Manchester. See https://mlm.humanities.manchester.ac.uk/wp-content/uploads/2016/12/ManchesterLinguisticLandscapes.pdf (accessed 11 October 2021).

Gaiser, L. and Matras, Y. (2020) Defining the position of 'community' in the study of linguistic landscapes. *Linguistic Landscape* 6 (2), 109–127. https://doi.org/10.1075/ll.19028.gai

Gaiser, L. and Matras, Y. (2021) Using smartphones to document linguistic landscapes: The LinguaSnapp mobile app. *Linguistics Vanguard* 7 (1). https://doi.org/10.1515/lingvan-2019-0012

Gal, S. (2018) Visions and revisions of minority languages. In P. Lane, J. De Costa and H. Korne (eds) *Standardizing Minority Languages* (pp. 222–241). Abingdon: Routledge.

Galgoczi-Deutsch, M. (2011) Making tourists feel at home: Linguistic landscape or Hodmezovasarhely. *Agricultural Management/Lucrari Stiintifice Seria I, Management Agricol* 13 (4), 31–38.

Galgoczi-Deutsch, M. (2012) Comparing the linguistic landscape of Hodmezovasarhely from tourism and business perspectives. *Agricultural Management/Lucrari Stiintifice Seria I, Management Agricol* 14 (4), 13–20.

Gallagher, K. and Bataineh, A. (2020) An investigation into the linguistic landscape of translingual storybooks for Arabic–English bilingual children. *Journal of Multilingual & Multicultural Development* 41 (4), 348–367. https://doi.org/10.1080/01434632.2019.1621326

Gallina, F. (2016) The Italian language in the Tanzanian LL: Between the Italian way of life and mass tourism. In R.J. Blackwood, E. Lanza and H. Woldemariam (eds) *Negotiating and Contesting Identities in Linguistic Landscapes* (pp. 37–52). London: Bloomsbury.

García, O. (2009) *Bilingual Education in the 21st Century: A Global Perspective*. Malden, MA: John Wiley & Sons.

Garvin, R.T. (2010) Responses to the linguistic landscape in Memphis, Tennessee: An urban space in transition. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 252–271). Bristol: Multilingual Matters.

Garvin, R.T. and Eisenhower, K. (2016) A comparative study of linguistic landscapes in middle schools in Korea and Texas: Contrasting signs of learning and identity construction. In R. Blackwood, E. Lanza and H. Woldemariam (eds) *Negotiating and Contesting Identities in Linguistic Landscapes* (pp. 215–231). London: Bloomsbury.

Gerritsen, M., Nickerson, C., Van Hooft, A., Van Meurs, F., Korzilius, H., Nederstigt, U. and Crijns, R. (2010) English in product advertisements in non-English-speaking countries in Western Europe: Product image and comprehension of the text. *Journal of Global Marketing* 23 (4), 349–365.

Gerst, D. and Klessmann, M. (2015) Multilingualism and linguistic demarcations in border regions. The linguistic border landscape of the German-Polish twin cities Frankfurt (Oder) and Słubice. *Rhetoric and Communications E-Journal* 15, 1–31. https://rhetoric.bg/wp-content/uploads/2015/02/Gerst_Klessmann_-_Linguistic_Border_Landscape-PhD-issue-15-January-2015-last.pdf

Giles, H., Bourhis, R.Y. and Taylor, D.M. (1977) Towards a theory of language in ethnic group relations. In H. Giles (ed.) *Language, Ethnicity and Intergroup Relations* (pp. 307–348). Cambridge, MA: Academic Press.

Giles, R.M. and K.W. Tunks (2010) Children write their world: Environmental print as a teaching tool. *Dimensions of Early Childhood* 38 (3), 23–30.

Gilles, P. and Ziegler, E. (2021) Exploring corpus linguistics approaches in linguistic landscape research with automatic text recognition software. In E. Ziegler and H.F. Marten (eds) *Linguistic Landscapes im deutschsprachigen Kontext. Forschungsperspektiven, Methoden und Anwendungsmöglichkeiten* (pp. 65–86). Berlin: Peter Lang.

Goffman, E. (1974) *Frame Analysis: An Essay on the Organization of Experience*. New York: Harper and Row.

Gonçalves, K. (2018) The semiotic paradox of gentrification: The commodification of place and linguistic fetishization of Bushwick's graffscapes. In A. Peck, C. Stroud and Q. Williams (eds) *Making Sense of People and Place in Linguistic Landscapes* (pp. 141–158). London: Bloomsbury.

Gonçalves, K. (2019) YO! or OY? -say what? Creative place-making through a metrolingual artifact in Dumbo, Brooklyn. *International Journal of Multilingualism* 16 (1), 42–58.

Gorter, D. (2006a) Introduction: The study of the linguistic landscape as a new approach to multilingualism. *International Journal of Multilingualism* 3 (1), 1–6.

Gorter, D. (2006b) Further possibilities for linguistic landscape research. In D. Gorter (ed.) *Linguistic Landscape: A New Approach to Multilingualism* (pp. 81–89). Clevedon: Multilingual Matters.

Gorter, D. (2009) The linguistic landscape in Rome: Aspects of multilingualism and diversity. In R. Bracalenti, D. Gorter, I. Catia, F. Santonico and C. Valente (eds) *Roma multietnica (I cambiamenti nel panorama linguistico/changes in the linguistic landscape)* (pp. 15–55). Rome: Edup SRL.

Gorter, D. (2012a) Foreword. Signposts in the linguistic landscape. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscapes, Multilingualism and Social Change* (pp. 9–12). Berlin: Peter Lang.

Gorter, D. (2012b) Minority language researchers and their role in policy development. *Language Culture and Curriculum* 25 (1), 87–100. https://doi.org/10.1080/07908318.2011.653060

Gorter, D. (2013) Linguistic landscapes in a multilingual world. *ARAL – Annual Review of Applied Linguistics* 33, 190–212. https://doi.org/10.1017/S0267190513000020

Gorter, D. (2016a) The portrayal of linguistic landscapes in academic publications. Paper in the invited colloquium on Linguistic Landscape Analysis and the Representation of Visual Data at the Conference of the American Association for Applied Linguistics (AAAL) 9–12 April, Orlando, Florida.

Gorter, D. (2016b) Multilingual contact zones and the possibilities of linguistic landscape research. Paper at the BOMOCULT conference: Interpreting European crisis and its consequences for bordering, mobilities and cultural encounters. University of Eastern Finland, Joensuu, 28–29 September.

Gorter, D. (2018) Linguistic landscape and trends in the study of schoolscapes. *Linguistics and Education* 44, 80–85. https://doi.org/10.1016/j.linged.2017.10.001

Gorter, D. (2019a) Methods and techniques for linguistic landscape research: About definitions, core issues and technological innovations. In M. Pütz and N. Mundt (eds) *Expanding the Linguistic Landscape: Linguistic Diversity, Multimodality and the Use of Space as a Semiotic Resource* (pp. 38–57). Bristol: Multilingual Matters.

Gorter, D. (2019b) Language contact in the linguistic landscape. In J. Darquennes, J. Salmons and W. Vandenbussche (eds) *Language Contact: An International Handbook* (pp. 429–439). Berlin: De Gruyter Mouton.

Gorter, D. (2021) Multilingual inequality in public spaces: Towards an inclusive model of linguistic landscapes. In R. Blackwood and D. Dunlevy (eds) *Multilingualism in the Public Spaces: Empowering and Transforming Communities* (pp. 13–30). London: Bloomsbury.

Gorter, D. and Cenoz, J. (2004) Linguistic landscape and L2 users in multilingual contexts. Eurosla-14: Conference of the European Second Language Association, San Sebastián/Donostia, 8–11 September.

Gorter, D. and Cenoz, J. (2015a) Translanguaging and linguistic landscapes. *Linguistic Landscape* 1 (1), 54–74. https://doi.org/10.1075/ll.1.1-2.04gor

Gorter, D. and Cenoz, J. (2015b) Linguistic landscapes inside multilingual schools. In B. Spolsky, M. Tannenbaum and O. Inbar (eds) *Challenges for Language Education and Policy: Making Space for People* (pp. 151–169). New York: Routledge.

Gorter, D. and Cenoz, J. (2017) Linguistic landscape and multilingualism. In J. Cenoz, D. Gorter and S. May (eds) *Language Awareness and Multilingualism* (pp. 233–245). Cham: Springer.

Gorter, D. and Cenoz, J. (2020) Theoretical development of linguistic landscape studies. *Linguistic Landscape* 6 (1), 16–22.

Gorter, D. and Cenoz, J. (2022) Linguistic landscape as a pedagogical tool for language teaching. In L. Eibensteiner, A. Kropp, J. Müller-Lancé and C. Schlaak (eds) *Neue Wege des Französischunterrichts: Linguistic Landscaping und Mehrsprachigkeitsdidaktik im digitalen Zeitalter* (pp. 173–197). Tübingen: Narr Francke Attempto.

Gorter, D. and Cenoz, J. (forthcoming) Linguistic landscapes in an education context. In R.J. Blackwood, S. Tufi and W. Amos (eds) *Handbook of Linguistic Landscapes*. London: Bloomsbury.

Gorter, D., Marten, H.F. and Van Mensel, L. (eds) (2012a) *Minority Languages in the Linguistic Landscape*. Basingstoke: Palgrave MacMillan.

Gorter, D., Aiestaran, J. and Cenoz, J. (2012b) The revitalization of Basque and the linguistic landscape of Donostia-San Sebastián. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 148–163). Basingstoke: Palgrave MacMillan.

Gorter, D., Zenotz, V., Etxague, X. and Cenoz, J. (2014) Multilingualism and European minority languages: The case of Basque. In D. Gorter, V. Zenotz and J. Cenoz (eds) *Minority Languages and Multilingual Education: Bridging the Local and the Global* (pp. 278–301). New York: Springer.

Gorter, D., Cenoz, J. and Van der Worp, K. (2021) The linguistic landscape as a resource for language learning and raising language awareness. *Journal of Spanish Language Teaching* 8 (2), 161–181. https://doi.org/10.1080/23247797.2021.2014029

Gorter, D., Cenoz, J. and Van der Worp, K. (2022) Global and local forces in multilingual landscapes: A study of a local market. In R. Blackwood and U. Røyneland (eds) *Spaces of Multilingualism* (pp. 188–212). Abingdon: Routledge.

Gottlieb, N. (2010) Language in public space in Japan. *Japanese Studies* 30 (3), 323–324. https://doi.org/10.1080/10371397.2010.518938

Graddol, D. and Danielewicz-Betz, A. (2015) Borderland English: Signs of transition across the expiring China-Hong Kong border. *Asian Englishes* 17 (1), 3–28. https://doi.org/10.1080/13488678.2014.956406

Gradečak-Erdeljić, T., Zlomislić, J. and Strossmayer, J.J. (2014) Linguistic landscape in the city of Osijek. *Filozofski Fakultet Sveučilišta u Mostaru* 11 (11–12), 7–37. https://www.ceeol.com/search/article-detail?id=231637

Grbavac, I. (2013) Linguistic landscape in Mostar. *Jezikoslovlje* 14 (2–3), 501–515.

Greene, S.H. (1896) In the Cascades. *Forest and Stream* 47, 343.

Griffin, J.L. (2001) Global English infiltrates Bulgaria. *English Today* 17 (4), 54–60. https://doi.org/10.1017/S0266078401004060

Gubitosi, P. and Ramos Pellicia, M.F. (eds) (2021) *Linguistic Landscape in the Spanish-Speaking World*. Philadelphia, PA: Benjamins.

Gubitosi, P., Puma, C. and Narváez, D. (2020) Landscaping an Ecuadorian neighborhood in Queens, NY. *Cuadernos de Lingüística Hispánica* (36), 211–234. https://doi.org/10.19053/0121053X.n36.2020.11302

Guinto, N. (2019) The place/s of Tagalog in Hong Kong's Central district. *Linguistic Landscape* 5 (2), 160–178. https://doi.org/10.1075/ll.18024.gui

Guo, R. and Vosters, R. (2020) Linguistic landscapes in Chinese ethnic neighborhoods in multilingual Antwerp and Brussels. *Lengua y migracion, Language and Migration* 12 (1), 235–261.

Han, Y. and Wu, X. (2020) Language policy, linguistic landscape and residents' perception in Guangzhou, China: Dissents and conflicts. *Current Issues in Language Planning* 21 (3), 229–253. https://doi.org/10.1080/14664208.2019.1582943

Hancock, A. (2012) Capturing the linguistic landscape of Edinburgh: a pedagogical tool to investigate student teachers' understandings of cultural and linguistic diversity. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscapes, Multilingualism and Social Change* (pp. 249–266). Berlin: Peter Lang.

Harris, L., Cunningham, U., King, J. and Stirling, D. (2022) Landscape design for language revitalisation: Linguistic landscape in and beyond a Māori immersion early childhood centre. In E. Krompák, V. Fernández-Mallat and S. Meyer (eds) *Linguistic Landscapes and Educational Spaces* (pp. 55–76). Bristol: Multilingual Matters.

Harvard Library (2022) Hedda Morrison photographs of China 1933–1946. See https://library.harvard.edu/collections/hedda-morrison-photographs-china (accessed 11 October 2021).

Hasanova, D. (2022) The linguistic landscape of Bukhara and Tashkent in the post-Soviet era. *World Englishes* 41, 24–37. https://doi.org/10.1111/weng.12553

Hassa, S. and Krajcik, C. (2016) 'Un peso, mami!' Linguistic landscape and transnationalism discourses in Washington Heights, New York City. *Linguistic Landscape* 2 (2), 157–181. https://doi.org/10.1075/ll.2.2.03has

Hatoss, A. (2023) *Everyday Multilingualism: Linguistic Landscapes as Practice and Pedagogy*. Abingdon: Routledge.

Haugen, E. (1972) *The Ecology of Language*. Palo Alto, CA: Stanford University Press.

Hayik, R. (2017) Exploring the perceptions of passers-by through the participatory documentary photography tool PhotoVoice. *Linguistic Landscape* 3 (2), 187–212. https://doi.org/10.1075/ll.3.2.04hay

Hayik, R. (2020) Using linguistic landscapes as stimuli for relevant EFL writing. In D. Malinowski, H.H. Maxim and S. Dubreil (eds) *Language Teaching in the Linguistic Landscape* (pp. 205–221). Dordrecht: Springer. https://doi.org/10.1007/978-3-030-55761-4_10

Heimrath, R.(2017) Spot German in Malta – Spurensuche an allen Ecken und Enden. In H.F. Marten and M. Saagpakk (eds) *Linguistic Landscapes und Spot German an der Schnittstelle von Sprachwissenschaft und Deutschdidaktik* (pp. 19–42). Munich: Iudicum.

Heller, M. (2010) The commodification of language. *Annual Review of Anthropology* 39, 101–114. http://doi.org/10.1146/annurev.anthro.012809.104951

Heller, M., Pietikäinen, S. and Pujolar, J. (2018) *Critical Sociolinguistic Research Methods: Studying Language Issues that Matter*. New York: Routledge.

Helm, F. and Dalziel, F. (2017) Beyond the classroom: The impact of EMI on a university's linguistic landscape. *L'analisi linguistica e letteraria* 25 (2), 372–399.

Hélot, C., Barni, M., Janssens, R. and Bagna, C. (eds) (2012) *Linguistic Landscapes, Multilingualism and Social Change*. Berlin: Peter Lang.

Hepford, E.A. (2017) Language for profit: Spanish–English bilingualism in Lowe's Home Improvement. *International Journal of Bilingual Education & Bilingualism* 20 (6), 652–666. https://doi.org/10.1080/13670050.2015.1066755

Hernández-Martín, L. and Skrandies, P. (2020) Taking the foreign out of language teaching: Opening up the classroom to the multilingual city. In D. Malinowski, H.H. Maxim and S. Dubreil (eds) *Language Teaching in the Linguistic Landscape* (pp. 293–325). Dordrecht: Springer.

Hewitt-Bradshaw, I. (2014) Linguistic landscape as a language learning and literacy resource in Caribbean Creole contexts. *Caribbean Curriculum* 22, 157–173. http://uwispace.sta.uwi.edu/dspace/handle/2139/40060

Hibbert, L. (2016) *The Linguistic Landscape of Post-Apartheid South Africa: Politics and Discourse*. Bristol: Multilingual Matters.

Hicks, D.A. (2002) Scotland's Linguistic Landscape: The Lack of Policy and Planning with Scotland's Place-Names and Signage. Paper presented at the World Congress on Language Policies, Barcelona, Spain. See https://www.linguapax.org/wp-content/uploads/2015/09/CMPL2002_T2_Hicks.pdf (accessed 1 October 2021).

Holmqvist, K., Nyström, M., Andersson, R., Dewhurst, R., Jarodzka, H. and Van de Weijer, J. (2011) *Eye Tracking: A Comprehensive Guide to Methods and Measures*. Oxford: Oxford University Press.

Hopkyns, S. and Van den Hoven, M. (2022) Linguistic diversity and inclusion in Abu Dhabi's linguistic landscape during the COVID-19 period. *Multilingua* 41 (2), 201–232. https://doi.org/10.1515/multi-2020-0187

Hornsby, M. (2008) The incongruence of the Breton linguistic landscape for young speakers of Breton. *Journal of Multilingual and Multicultural Development* 29 (2), 127–138. https://doi.org/10.2167/jmmd538.0

Howlett, M. and Tosun, J. (eds) (2021) *The Routledge Handbook of Policy Styles*. Abingdon: Routledge.

Hua, Z. (2020) Urban public signs during a pandemic. Blog-post on viral discourse. See https://viraldiscourse.com/2020/06/07/urban-public-signs-during-a-pandemic/ (accessed 10 October 2021).

Hua, Z., Otsuji, E. and Pennycook, A. (2017) Multilingual, multisensory and multimodal repertoires in corner shops, streets and markets: Introduction, *Social Semiotics* 27 (4), 383–393. https://doi.org/10.1080/10350330.2017.1334383

Huang, Y. (ed.) (2017) *The Oxford Handbook of Pragmatics*. Oxford: Oxford University Press.

Huebner, T. (2006) Bangkok's linguistic landscapes: Environmental print, code mixing, and language change. *International Journal of Multilingualism* 3, 31–51. https://doi.org/10.1080/14790710608668384

Huebner, T. (2009) A framework for the linguistic analysis of linguistic landscapes. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 70–87). New York: Routledge.

Huebner, T. (2016a) Linguistic landscape: History, trajectory and pedagogy. *Manusya: Journal of Humanities* 19 (3), 1–11. https://doi.org/10.1163/26659077-01903001

Huebner, T. (2016b) Linguistic landscapes in Thailand: Some preliminary vistas. *Manusya: Journal of Humanities* 19 (3), 1–11.

Huebner, T. (2021) Diaspora and Asian spaces in a transnational world. *Linguistic Landscape* 7 (2), 117–127. https://doi.org/10.1075/ll.21009.hue

Huebner, T. and Phoocharoensil, S. (2017) Monument as semiotic landscape. *Linguistic Landscape* 3 (2), 101–121. https://doi.org/10.1075/ll.3.2.01hue

Hulsen, M.E.H. (2000) *Language Loss and Language Processing: Three Generations of Dutch Migrants in New Zealand*. Utrecht: LOT Utrecht.

Hulstijn, J. (2003) Incidental and intentional learning. In C. Doughty and M. Long (eds) *Handbook of Second Language Acquisition* (pp. 349–381). Oxford: Blackwell Publishing.

Hult, F.M. (2003) English on the streets of Sweden: An ecolinguistic view of two cities and a language policy. *Working Papers in Educational Linguistics* 19, 43–63.

Hult, F.M. (2014) Drive-thru linguistic landscaping: Constructing a linguistically dominant place in a bilingual space. *International Journal of Bilingualism* 18 (5), 507–523. https://doi.org/10.1177/1367006913484206

Hult, F.M. (2018) Language policy and planning and linguistic landscapes. In J.W. Tollefson and M. Pérez-Milans (eds) *The Oxford Handbook of Language Policy and Planning* (pp. 333–351). Oxford: Oxford University Press.

Hult, F.M. and Johnson, D.C. (2015) *Research Methods in Language Policy and Planning: A Practical Guide*. Chichester: Wiley-Blackwell.

Hult, F.M. and Kelly-Holmes, H. (2019) Spectacular language and creative marketing in a Singapore tailor shop. *International Journal of Multilingualism* 16 (1), 79–93. https://doi.org/10.1080/14790718.2018.1500263

Hutton, C.M. (2011) Vernacular spaces and >non-places<: Dynamics of the Hong Kong linguistic landscape. In M. Messling, D. Läpple and J. Trabant (eds) *Stadt und Urbanität: The New Metropolis – Die Neue Metropole* (pp. 162–184). Berlin: Kulturtverlag Kadmos.

Hyde, B. (2002) Japan's emblematic English. *English Today* 18 (3), 12–16. https://doi.org/10.1017/S0266078402003024

Itagi, N.H. and Singh, S.K. (eds) (2002) *Linguistic Landscaping in India: With Particular Reference to the New States*. Mysore: Central Institute of Indian Languages.

Ivkovic, D. and Lotherington, H. (2009) Multilingualism in cyberspace: Conceptualising the virtual linguistic landscape. *International Journal of Multilingualism* 6 (1), 17–36.

Izadi, D. and Parvaresh, V. (2016) The framing of the linguistic landscapes of Persian shop signs in Sydney. *Linguistic Landscape* 2 (2), 182–205. https://doi.org/10.1075/ll.2.2.04iza

Jackendoff, R. (1983) *Semantics and Cognition*. Cambridge, MA: Massachusetts Institute of Technology.

Jackson-Preece, J. (2014) Beyond the (non) definition of minority. ECMI brief #30. European Center for Minority Issues (ECMI). See https://www.ecmi.de/publications/issue-briefs/beyond-the-non-definition-of-minority (accessed 10 October 2021).

Jaffe, A. and Oliva, C. (2013) Linguistic creativity in Corsican tourist context. In S. Pietikäinen and H. Kelly-Holmes (eds) *Multilingualism in the Periphery* (pp. 95–117). Oxford: Oxford University Press.

James, A. (2016) From code-mixing to mode-mixing in the European context. *World Englishes* 35 (2), 259–275.

Janssens, R. (2012) The linguistic landscape as a political arena: The case of the Brussels periphery in Belgium. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscapes, Multilingualism and Social Change* (pp. 39–52). Berlin: Peter Lang.

Janssens, R. (2015) Language conflict in Brussels: Political mind-set versus linguistic practice. *International Journal of the Sociology of Language* 235, 53–76.

Järlehed, J. (2015) Ideological framing of vernacular type choices in the Galician and Basque semiotic landscape. *Social Semiotics* 25 (2), 165–199. https://doi.org/10.1080/10350330.2015.1010316

Järlehed, J. (2017) Genre and metacultural displays: The case of street-name signs. *Linguistic Landscape* 3 (3), 286–305. https://doi.org/10.1075/ll.17020.jar

Järlehed, J. (2019) Kill Bilbo: Metrolingual play in Galician and Basque T-shirts. *International Journal of Multilingualism* 16 (1), 59–78. https://doi.org/10.1080/14790718.2018.1500260

Järlehed, J. (2020) Pride and profit: Naming and branding. Galicianness and Basqueness in public space. In M. Löfdahl, M. Waldispühl and L. Wenner (eds) *Namn i skrift. Names in Writing* (pp. 147–175). Goteburg: Meijerbergs Institut.

Järlehed, J. and Jaworski, A. (2015) Editorial: Typographic landscaping: Creativity, ideology, movement. *Social Semiotics* 25 (2), 117–125. https://doi.org/10.1080/10350330.2015.1010318

Järlehed, J. and Moriarty, M. (2018) Culture and class in a glass: Scaling the semiofoodscape. *Language & Communication* 62 (Part A), 26–38. https://doi.org/10.1016/j.langcom.2018.05.003

Järlehed, J., Lykke Nielsen, H. and Rosendal, T. (2018) Language, food and gentrification: Signs of socioeconomic mobility in two Gothenburg neighbourhoods. *Multilingual Margins* 5 (1), 40–65. https://doi.org/10.14426/mm.v5i1.88

Jaspers, J. and Madsen, L.M. (2019) Fixity and fluidity in sociolinguistic theory and practice. In J. Jaspers and L.M. Madsen (eds) *Critical Perspectives on Linguistic Fixity and Fluidity* (pp. 1–26). Abingdon: Routledge.

Jaworski, A. (2010) Linguistic landscapes on postcards: Tourist mediation and the sociolinguistic communities of contact. *Sociolinguistic Studies* 4/3, 469–594.

Jaworski, A. (2014) Metrolingual art: Multilingualism and heteroglossia. *International Journal of Bilingualism* 18, 134–158. https://doi.org/10.1177/1367006912458391

Jaworski, A. (2015a) Welcome: Synthetic personalization and commodification of sociability in the linguistic landscape of global tourism. In B. Spolsky, O. Inbar-Lourie and M. Tannenbaum (eds) *Challenges for Language Education and Policy* (pp. 214–231). New York: Routledge.

Jaworski, A. (2015b) Globalese: A new visual-linguistic register. *Social Semiotics* 25 (2), 217–235.

Jaworski, A. (2015c) Word cities and language objects: Love sculptures and signs as shifter. *Linguistic Landscape* 1 (1), 75–94. https://doi.org/10.1075/ll.1.1-2.05jaw

Jaworski, A. (2019) X. *Linguistic Landscape* 5 (2), 115–141. https://doi.org/https://doi.org/10.1075/ll.18029.jaw

Jaworski, A. and Thurlow, C. (2010) *Semiotic Landscapes: Language, Image, Space*. London: Continuum.

Jaworski, A. and Yeung, S. (2010) Life in the Garden of Eden: The naming and imagery of residential Hong Kong. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 153–181). Bristol: Multilingual Matters.

Jaworski, A. and Lou, J.J. (2020) #wordswewear: Mobile texts, expressive persons, and conviviality in urban spaces. *Social Semiotics*. https://doi.org/10.1080/10350330.2020.1810545

Jaworski, A. and Li, W. (2021) Introducing writing (in) the city. *Social Semiotics*. https://doi.org/10.1080/10350330.2020.1827934

Jazul, M.E.M. and Bernardo, A.S. (2017) A look into Manila Chinatown's linguistic landscape: The role of language and language ideologies. *Philippine Journal of Linguistics* 48, 75–98.

Jenkins, J., Baker, W. and Dewey, M. (eds) (2018) *The Routledge Handbook of English as a Lingua Franca*. Abingdon: Routledge.

Jewitt, C. and Triggs, T. (2006) Screens and the social landscape – Editorial. *Visual Communication* 5 (2), 131–140.

Jianxiu, K. (1999) English everywhere in China. *English Today* 15 (2), 46–48. https://doi.org/10.1017/S0266078400010944

Jimaima, H. and Banda, F. (2020) Multilingual memories: Artefactual materiality of erasure and downscaling in linguistic and semiotic landscapes of Livingstone Town, Zambia. In R. Blackwood and J. MacAlister (eds) *Multilingual Memories Monuments, Museums and the Linguistic Landscape* (pp. 89–112). London: Bloomsbury.

Jocuns, A. (2019) Why is English green? The preference for English on environmental discourse at a Thai university. *Manusya, Journal of Humanities* 22 (3), 289–320.

Jocuns, A. (2021) The geosemiotics of a Thai university: The narratives embedded in schoolscapes. *Linguistics and Education* 61. https://doi.org/10.1016/j.linged.2021.100902

Jódar-Sánchez, J.A. (2021) The linguistic landscape of the Raval: Language policy and contextualization. In P. Gubitosi and M.F.R. Pellicia (eds) *Linguistic Landscape in the Spanish-Speaking World* (pp. 215–238). Philadelphia, PA: Benjamins.

Johnson, D. (2017) Linguistic landscaping and the assertion of twenty-first century Māori identity. *Linguistic Landscape* (1), 1–24.

Johnson, D.C. (2013) *Language Policy*. Basingstoke: Palgrave Macmillan.

Johnson, P. (2006) Unravelling Foucaults' 'Different Spaces'. *History of the Human Sciences* 19 (4), 75–90.

Johnstone, B. (2011) Dialect enregisterment in performance. *Journal of Sociolinguistics* 15 (5), 657–667.

Jones, R.H. (2017) Surveillant landscapes. *Linguistic Landscape* 3 (2), 149–186. https://doi.org/10.1075/ll.3.2.03jon

Juffermans, K. (2012) Multimodality and audiences: Local languaging in the Gambian linguistic landscape. *Sociolinguistic Studies* 6 (2), 259–284. https://doi.org/10.1558/sols.v6i2.259

Juffermans, K. (2014) Englishing, imaging and local languaging in the Gambian linguistic landscape. In K. Juffermans, Y.M. Asfaha and A. Abdelhay (eds) *African Literacies: Ideologies, Scripts, Education* (pp. 206–236). Newcastle Upon Tyne: Cambridge Scholars Publishing.

Juffermans, K. and Coppoolse, J. (2012) How literate, low-literate and non-literate readers read the linguistic landscape in a Gambian village. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscapes, Multilingualism and Social Change* (pp. 233–247). Berlin: Peter Lang.

Kachru, B.B. (1992) Teaching world Englishes. In B.B. Kachru (ed.) *The Other Tongue. English Across Cultures* (2nd edn; pp. 355–365). Chicago, IL: University of Illinois Press.

Kadenge, M. (2015) 'Where art thou Sesotho?': Exploring the linguistic landscape of Wits University. *Per Linguam* 31 (1), 30–45.

Kailuweit, R. (2019) Linguistic landscapes and regional languages in Southern France - A neo-semiotic approach to placemaking conflicts. In M. Castillo Lluch, R. Kailuweit and C.D. Pusch (eds) *Linguistic Landscape Studies: The French Connection* (pp. 131–62). Freiburg: Rombach Verlag.

Kallen, J.L. (2009) Tourism and representation in the Irish linguistic landscape. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 270–283). New York: Routledge.

Kallen, J.L. (2010) Changing landscapes: Language, space and policy in the Dublin linguistic landscape. In A. Jaworski and C. Thurlow (eds) *Semiotic Landscapes: Language, Image, Space* (pp. 41–58). London: Continuum.

Kallen, J.L. and Ní Dhonnacha, E. (2010) Language and inter-language in urban Irish and Japanese linguistic landscapes. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 19–36). Bristol: Multilingual Matters.

Kallen, J.L., Dunlevy, D. and Balaeva, O. (2015) Contextualising units in the linguistic landscape: How should data be framed? Paper presented at the 7th Linguistic Landscape Workshop, 7–9 May, University of Berkeley. See https://www.academia.edu/17142331/Contextualising_units_in_the_Linguistic_Landscape_How_should_data_be_framed (accessed 10 July 2021).

Kaplan, R.B. and Baldauf Jr, R.B. (1997) *Language Planning: From Practice to Theory*. Clevedon: Multilingual Matters.

Karafylli, M. and Maligkoudi, C. (2022) Educators' perspectives on translanguaging schoolscape and language education for refugee students in Greek educational settings. *Education Inquiry*. https://doi.org/10.1080/20004508.2021.2019374

Karlander, D. (2018a) Backjumps, mobilities and metro semiotics. *Social Semiotics* 28 (1), 41–59. https://doi.org/10.1080/10350330.2016.1200802

Karlander, D. (2018b) Mobile semiosis and mutable metro spaces: Train graffiti in Stockholm's public transport system. In A. Peck, C. Stroud and Q. Williams (eds) *Making Sense of People and Place in Linguistic Landscapes* (pp. 71–88). London: Bloomsbury.

Karlander, D. (2019) A semiotics of nonexistence? Erasure and erased writing under anti-graffiti regimes. *Linguistic Landscape* 5 (2), 198–216. https://doi.org/10.1075/ll.18023.kar

Karolak, M. (2022) Linguistic landscape in a city of migrants: A study of Souk Naif area in Dubai. *International Journal of Multilingualism* 19 (4), 605–629. https://doi.org/10.1080/14790718.2020.1781132

Kasanga, L.A. (2010) Streetwise English and French advertising in multilingual DR Congo: Symbolism, modernity, and cosmopolitan identity. *International Journal of the Sociology of Language* 206, 181–205. https://doi.org/10.1515/ijsl.2010.053

Kasanga, L.A. (2012) Mapping the linguistic landscape of a commercial neighbourhood in Central Phnom Penh. *Journal of Multilingual and Multicultural Development* 33 (6), 553–567. https://doi.org/10.1080/01434632.2012.683529

Kasanga, L.A. (2017) Book review: L. Hibbert (2016) The linguistic landscape of post-apartheid South Africa: Politics and discourse. *Linguistic Landscape* 3 (3), 327–329.

Kasanga, L.A. (2019) English in advertising in Lubumbashi, Democratic Republic of Congo. *World Englishes* 38 (3), 561–575. https://doi.org/10.1111/weng.12424

Kathpalia, S.S. and Wee Ong, K.K. (2015) The use of code-mixing in Indian billboard advertising. *World Englishes* 34 (4), 557–575.

Kelleher, W. and Milani, T.M. (2015) Surface and underneath: A linguistic landscape analysis of the Bosman neighbourhood in Pretoria. *Image & Text: a Journal for Design* 25 (1), 110–141.

Kelly-Holmes, H. (2014) Linguistic fetish: The sociolinguistics of visual multilingualism. In D. Machin (ed.) *Visual Communication* (pp. 135–151). Berlin: De Gruyter Mouton.

Kelly-Holmes, H. and Pietikäinen, S. (2016) Language: A challenging resource in a museum of Sámi culture. *Scandinavian Journal of Hospitality and Tourism* 16 (1), 24–41. https://doi.org/10.1080/15022250.2015.1058186

Kerry, V.J. (2017) The construction of hegemonic masculinity in the semiotic landscape of a CrossFit ‘Cave’. *Visual Communication* 16 (2), 209–237. https://doi.org/10.1177/1470357216684081

Kim, S. (2017) Linguistic landscape in pre-service teacher education: Potentials and considerations. *Multimedia-Assisted Language Learning* 20 (4), 66–98.

Kim, S. and Chesnut, M. (2020) Teaching with virtual linguistic landscapes: Developing translingual and transcultural Competence. In D. Malinowski, H.H. Maxim and S. Dubreil (eds) *Language Teaching in the Linguistic Landscape: Mobilizing Pedagogy in Public Space* (pp. 69–92). Dordrecht: Springer.

Kinney, P. (2017) Walking interviews. *Social Research Update* 67, 1–4. See https://sru.soc.surrey.ac.uk/SRU67.pdf (accessed 10 July 2021).

Kirkgöz, Y. (2021) English learning experience in a textile company in Turkey. In G. Niedt and C.A. Seals (eds) *Linguistic Landscapes Beyond the Language Classroom* (pp. 117–131). New York: Bloomsbury.

Kirkpatrick, A. (ed.) (2020) *The Routledge Handbook of World Englishes*. Abingdon: Routledge.

Knoblauch, H., Schnettler, B. and Raab, J. (2012) Video-analysis: Methodological aspects of interpretive audiovisual analysis in social research. In H. Knoblauch, B. Schnettler, J. Raab and H. Soeffner (eds) *Video Analysis: Methodology and Methods: Qualitative Audiovisual Data Analysis in Sociology* (3rd edn; pp. 9–26). Frankfurt: Peter Lang.

Kotze, C.R. and Du Plessis, T. (2010) Language visibility in the Xhariep: A comparison of the linguistic landscape of three neighbouring towns. *Language Matters* 41 (1), 72–96. https://doi.org/10.1080/10228195.2010.494682

Kramsch, C. (2014) A researcher's auto-socioanalysis: Making space for the personal. In B. Spolsky, O. Inbar-Lourie and M. Tannenbaum (eds) *Challenges for Language Education and Policy: Making Space for People* (pp. 235–244). New York: Routledge.

Kreslins, J. (2003) Linguistic landscapes in the Baltic. *Scandinavian Journal of History* 28 (3–4), 165–174.

Kress, G. and Van Leeuwen, T. (1996) *Reading Images. The Grammar of Visual Design*. London: Routledge.

Kress, G. and Street, B. (2006) Foreword. In K. Pahl and J. Rowsell (eds) *Travel Notes From the New Literacy Studies: Instances of Practice* (pp. vii–x). Clevedon: Multilingual Matters.

Kretzer, M.M. and Kaschula, R.H. (2021) Language policy and linguistic landscapes at schools in South Africa. *International Journal of Multilingualism* 18 (1), 105–127.

Krompák, E., Fernández-Mallat, V. and Meyer, S. (eds) (2022) *Linguistic Landscapes and Educational Spaces*. Bristol: Multilingual Matters.

Kroon, S. (2021) Language policy in public space: A historical perspective on Asmara's linguistic landscape. *Journal of Eastern African Studies* 15 (2), 274–296. https://doi.org/10.1080/17531055.2021.1904703

Kudžmaitė, G. and Juffermans, K. (2020) Politically open – sociolinguistically semi-permeable: A linguistic landscape view into the Lithuanian-Polish borderland. In D. Malinowski and S. Tufi (eds) *Reterritorializing Linguistic Landscapes: Questioning Boundaries and Opening Spaces* (pp. 262–283). London: Bloomsbury.

Kuipers-Zandberg, H. and Kircher, R. (2020) The objective and subjective ethnolinguistic vitality of West Frisian: Promotion and perception of a minority language in the Netherlands. *Sustainable Multilingualism* (17), 1–25.

Kusse, H. (2021) The linguistic landscape of the coronavirus crisis in foreign language didactics by using the example of German. In *SHS Web of Conferences* (Vol. 99). Les Ulis: EDP Sciences.

Labov, W., Ash, S. and Boberg, C. (1997) A national map of the regional dialects of American English. See https://www.ling.upenn.edu/phono_atlas/NationalMap/NationalMap.html (accessed 12 January 2022).

Lado, B. (2011) Linguistic landscape as a reflection of the linguistic and ideological conflict in the Valencian community. *International Journal of Multilingualism* 8 (2), 135–150. https://doi.org/10.1080/14790718.2010.550296

Lai, M.L. (2013) The linguistic landscape of Hong Kong after the change of sovereignty. *International Journal of Multilingualism* 10 (3), 251–272. https://doi.org/10.1080/14790718.2012.708036

Laihonen, P. and Szabó, T.P. (2017) Investigating visual practices in educational settings: Schoolscapes, language ideologies and organizational cultures. In M. Martin-Jones and D. Martin (eds) *Researching Multilingualism: Critical and Ethnographic Perspectives* (pp. 121–138). Abingdon: Routledge.

Laihonen, P. and Todór, E.M. (2017) The changing schoolscape in a Szekler village in Romania: Signs of diversity in 'rehungarization'. *International Journal of Bilingualism and Bilingual Education* 20 (3), 362–379. https://doi.org/10.1080/13670050.2015.1051943

Laihonen, P. and Szabó, T.P. (2018) Studying the visual and material dimensions of education and learning. *Linguistics and Education* 44, 1–86.

Laitinen, M. (2014) 630 kilometres by bicycle: Observations on English in urban and rural Finland. *International Journal for the Sociology of Language* 228, 55–77. https://doi.org/10.1515/ijsl-2014-0005

Laitinen, M. (2015) English on the move: What's beyond modernity and internationalism? In M. Laitinen and A. Zabrodskaja (eds) *Dimensions of Sociolinguistic Landscapes in Europe: Materials and Methodological Solutions* (pp. 105–124). Frankfurt am Main: Peter Lang.

Laitinen, M. and Zabrodskaja, A. (2015) *Dimensions of Sociolinguistic Landscapes in Europe*. Frankfurt am Main: Peter Lang.

Lam, P.W.Y. and Graddol, D. (2017) Conceptualising the vertical landscape: The case of the International Finance Centre in the world's most vertical city. *Journal of Sociolinguistics* 21 (4), 521–546. https://doi.org/10.1111/josl.12243

Lamarre, P. (2014) Bilingual winks and bilingual wordplay in Montreal's linguistic landscape. *International Journal of the Sociology of Language* 2014 (228), 131–151.

Landry, R. and Bourhis, R.Y. (1997) Linguistic landscape and ethnolinguistic vitality: An empirical study. *Journal of Language and Social Psychology* 16 (1), 23–49. https://doi.org/10.1177/0261927X970161002

Landry, R. and Allard, R. (1992) Ethnolinguistic vitality and the bilingual development of minority and majority group students. In W. Fase, K. Jaspaert and S. Kroon (eds) *Maintenance and Loss of Minority Languages* (pp. 223–251). Amsterdam: Benjamins.

Lanza, E. and Woldemariam, H. (2009) Language ideology and linguistic landscape: Language policy and globalization in a regional capital of Ethiopia. In E. Shohamy and

D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 189–205). New York: Routledge.

Lanza, E. and Woldemariam, H. (2014a) Multilingualism and local literacy practices in Ethiopia: Language contact in regulated and unregulated spaces. *Multilingual Margins* 1 (1), 55–74. https://doi.org/10.14426/mm.v1i1.22

Lanza, E. and Woldemariam, H. (2014b) Indexing modernity: English and branding in the linguistic landscape of Addis Ababa. *International Journal of Bilingualism* 18 (5), 491–506. https://doi.org/10.1177/1367006913484204

Lazar, M.M. (2018) Gender, sexuality, and semioscapes. *Linguistic Landscape* 4 (3), 320–327.

Lazdiņa, S. (2019) 'We don't really have a preferred language': A case study of language practices in the Latvian-Estonian border area (Valka and Valga twin-towns). *Valoda: Nozīme un forma* (10), 114–130.

Lazdina, S. and Marten H.F. (2009) The 'linguistic landscape' method as a tool in research and education of multilingualism: Experiences from a project in the Baltic States. In A. Saxena and Å.Viberg (eds) *Multilingualism: Proceedings of the 23 Scandinavian Conference of Linguistics, 1–3 October 2008* (pp. 212–225). Uppsala: Uppsala University. http://uu.diva-portal.org/smash/get/diva2:275878/FULLTEXT03

Lazdiņa, S. and Marten, H.F. (2019) Multilingualism, language contact and majority-minority relations in contemporary Estonia, Latvia and Lithuania. In S. Lazdiņa and H.F. Marten (eds) *Multilingualism in the Baltic States* (pp. 1–25). London: Palgrave Macmillan.

Lee, C.L. (2022) Singapore hawker centres: A linguistic landscape of identity, diversity, and continuity. *Journal of Asian Pacific Communication*. https://doi.org/10.1075/japc.00078.lee

Lee, H. and Choi, B. (2020) A geolocative linguistic landscape project in Korean as foreign language education. In D. Malinowski, H.H. Maxim and S. Dubreil (eds) *Language Teaching in the Linguistic Landscape* (pp. 183–204). Dordrecht: Springer.

Lee, J.W. and Lou, J.J. (2019) The ordinary semiotic landscape of an unordinary place: Spatiotemporal disjunctures in Incheon's Chinatown. *International Journal of Multilingualism* 16 (2), 187–203. https://doi.org/10.1080/14790718.2019.1575837

Lee, Y.H. and Jun, K.S. (2016) The Inner Circle vs. the Outer Circle or British English vs. American English. In *Proceedings of the 30th Pacific Asia Conference on Language, Information and Computation: Posters* (pp. 339–346). Seoul: ACL Anthology.

Leeman, J. and Modan, G. (2009) Commodified language in Chinatown: A contextualized approach to linguistic landscape. *Journal of Sociolinguistics* 13 (3), 332–362.

Leeman, J. and Modan, G. (2010) Selling the city: Language, ethnicity and commodified space. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 182–198). Bristol: Multilingual Matters.

Lees, L., Slater, T. and Wyly, E. (2008) *Gentrification*. New York: Routledge.

Lefebvre, H. (1991) *The Production of Space*. Oxford: Wiley-Blackwell.

Legère, K. and Rosendal, T. (2019) Linguistic landscapes and the African perspective. In M. Pütz and N. Mundt (eds) *Expanding the Linguistic Landscape: Linguistic Diversity, Multimodality and the Use of Space as a Semiotic Resource* (pp. 153–179). Bristol: Multilingual Matters.

Leimgruber, J.R.E. (2018) Itineracy immobilised: The linguistic landscape of a Singaporean hawker centre. *Linguistic Landscape* 4 (2), 178–199. https://doi.org/10.1075/ll.17035.lei

Leimgruber, J.R.E. (2019) Montreal's linguistic landscape: Instances of top-down and bottom-up language planning. In M. Castillo Lluch, R. Kailuweit and C.D. Pusch (eds) *Linguistic Landscape Studies: The French Connection* (pp. 163–174). Freiburg: Rombach Verlag.

Leimgruber, J.R.E. (2020) Global multilingualism, local bilingualism, official monolingualism: The linguistic landscape of Montreal's St. Catherine Street. *International Journal of Bilingual Education and Bilingualism* 23 (6), 708–723. https://doi.org/10.1080/13670050.2017.1401974

Leimgruber, J.R.E., Vingron, N. and Titone, D. (2020) What do people notice from real-world linguistic landscapes? A review of the literature and recommendations for future eye-tracking research. In D. Malinowski and S. Tufi (eds) *Reterritorializing Linguistic Landscapes: Questioning Boundaries and Opening Spaces* (pp. 16–30). London: Bloomsbury.

Leizaola, A. and Egaña, M. (2007) Le paysage linguistique, un champ d'étude émergent: La signalétique routière entre Donostia et Baiona. In E. Urteaga (ed.) *L'aménagement du territoire en Pays Basque* (pp. 81–102). Bilbao: Dakit.

Leizaola, A. and Egaña, M. (2012) Le paysage linguistique dans l'Eurocité basque. La signalétique routière dans une région plurilingue et transfrontalière. *Actes des congrès nationaux des sociétés historiques et scientifiques* 135 (6), 98–112.

Leonet, O., Cenoz, J. and Gorter, D. (2020) Developing morphological awareness across languages: translanguaging pedagogies in third language acquisition. *Language Awareness* 29 (1), 41–59. https://doi.org/10.1080/09658416.2019.1688338

Leprêtre, M. and Romaní, J.M. (2000) L'ús de les llengües a la publicitat exterior a Barcelona i a sis altres ciutats l'any 1999 [Language Use in Outdoor Advertising in Barcelona and Six Other Cities]. *Llengua i Ús* 17, 55–59.

Lesh, K.N. (2021) Basque gastronomic tourism: Creating value for Euskara through the materiality of language and drink. *Applied Linguistics Review* 12 (1), 39–63. https://doi.org/10.1515/applirev-2019-0101

Leung, G.Y. and Wu, M.-H. (2012) Linguistic landscape and heritage language literacy education: A case study of linguistic rescaling in Philadelphia Chinatown. *Written Language and Literacy* 15 (1), 114–140. https://doi.org/10.1075/wll.15.1.06leu

Li, J. and Marshall, S. (2018) Engaging with linguistic landscaping in Vancouver's Chinatown: A pedagogical tool for teaching and learning about multilingualism. *International Journal of Bilingual Education and Bilingualism* 23 (8), 925–941. https://doi.org/10.1080/13670050.2017.1422479

Li, J., Yan, Y., Hou, F. and Dong, J. (2020) An ethnographic study of linguistic landscapes at China-and-Vietnam border. *International Journal of English Linguistics* 10 (1), 127–141. https://doi.org/10.5539/ijel.v10n1p127

Li, S. (2015) English in the linguistic landscape of Suzhou: Creative, fluid and transgressive English practices in a Chinese city. *English Today* 31 (1), 27–33. https://doi.org/10.1017/S0266078414000510

Li, W. (2018) Translanguaging as a practical theory of language. *Applied Linguistics* 39 (1), 9–30.

Li, W. and Hua, Z. (2019) Tranßcripting: Playful subversion with Chinese characters. *International Journal of Multilingualism* 16 (2), 145–161.

Li, W. and Kelly-Holmes, H. (2022) Language policy: Taking stock in a changing context. In R.J. Blackwood and U. Røyneland (eds) *Spaces of Multilingualism* (pp. 11–30). Abingdon: Routledge.

Li, Y. (2022) Cultural authenticity in the linguistic landscape: Developing additional-language learners' critical intercultural understanding. In E. Krompák, V. Fernández-Mallat and S. Meyer (eds) *Linguistic Landscapes and Educational Space* (pp. 258–276). Bristol: Multilingual Matters.

Li, Y. (2022) A review of LinguaSnapp: A crowd-sourcing mobile app for mapping linguistic landscape. In *2022 IEEE Asia-Pacific Conference on Image Processing, Electronics and Computers (IPEC)* (pp. 438–441). New York: IEEE. https://doi.org/10.1109/IPEC54454.2022.9777515

Li, Y., Lee, H. and Choi, B. (2022) Developing beginning language learners' (meta-) cultural understanding via student-led linguistic landscape research. *Linguistic Landscape* 8 (1), 56–84. https://doi.org/10.1075/ll.20022.li

Liao, C.R. and Chan, B.H. (2022) Linguistic landscape in transnational areas: A comparative study of African and Korean neighbourhoods in Guangzhou. *International Journal of Multilingualism*. https://doi.org/10.1080/14790718.2022.2060233

Lindström, K., Kull, K. and Palang, H. (2014) Landscape semiotics: Contribution to culture theory. In V. Lang and K. Kull (eds) *Estonian Approaches to Culture Theory* (pp. 110–132). Tartu: University of Tartu Press.

Lipovsky, C. (2019a) Belleville's linguistic heterogeneity viewed from its landscape. *International Journal of Multilingualism* 16 (3), 244–269. https://doi.org/10.1080/14790718.2018.1439494

Lipovsky, C. (2019b) The linguistic landscapes of Girona and Perpignan: A contrastive study of the display of the Catalan language in top-down signage. *Journal of Catalan Studies* 2 (21), 150–194.

Litzenberg, J. (2018) 'Official language for intercultural ties': Cultural concessions and strategic roles of Ecuadorian Kichwa in developing institutional identities. *Linguistic Landscape* 4 (2), 153–177. https://doi.org/10.1075/ll.17016.lit

Loester, B. (2021) The public discourse and presentation of migrant groups within a museum space. In G. Niedt and C. Seals (eds) *Linguistic Landscapes beyond the Language Classroom* (pp. 133–152). New York: Bloomsbury.

Lomicka, L. and Ducate, L. (2019) Using technology, reflection, and noticing to promote intercultural learning during short-term study abroad. *Computer Assisted Language Learning* 34 (1), 35–65. https://doi.org/10.1080/09588221.2019.1640746

Lörzing, H. (2001) *The Nature of Landscape: A Personal Quest*. Rotterdam: 010 Publishers.

Loth, C.-R. (2019) Language attitudes and communication in the public space: A rural case study in South Africa. *Alternation* 24, 122–147. https://doi.org//10.29086/2519-5476/2019/sp24.2a6

Loth, C.-R. and Du Plessis, T. (2017) Language visibility patterns of ergonyms in the linguistic landscape of a rural municipality in the southern Free State, South Africa. *Nomina Africana* 31 (1), 11–27. https://doi.org/10.2989/NA2017.31.1.2.1305

Lou, J.J. (2007) Revitalizing Chinatown into a heterotopia: A geosemiotic analysis of shop signs in Washington, D.C.'s Chinatown. *Space and Culture* 10 (2), 170–194. https://doi.org/10.1177/1206331206298547

Lou, J.J. (2010) Chinese on the side: The marginalization of Chinese in the linguistic and social landscapes of Chinatown in Washington, DC. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 96–114). Bristol: Multilingual Matters.

Lou, J.J. (2012) Chinatown in Washington, DC: The bilingual landscape. *World Englishes* 31 (1), 34–47.

Lou, J.J. (2016a) *The Linguistic Landscape of Chinatown: A Sociolinguistic Ethnography*. Bristol: Multilingual Matters.

Lou, J.J. (2016b) Ways of Walking, Ways of Seeing: Doing Mobile Video Ethnography in Linguistic Landscape Research. Presentation in the colloquium linguistic landscape analysis and the representation of visual data. Abstracts AAAL, Orlando, 10 April.

Lou, J.J. (2016c) Shop sign as monument: The discursive recontextualization of a neon sign. *Linguistic Landscape* 2 (3), 211–222. https://doi.org/10.1075/ll.2.3.01lou

Lou, J.J. (2017) Spaces of consumption and senses of place: A geosemiotic analysis of three markets in Hong Kong. *Social Semiotics* 27 (4), 513–531. https://doi.org/10.1080/10350330.2017.1334403

Lou, J.J., Malinowski, D. and Peck, A. (2022) The linguistic landscape of Covid-19. *Linguistic Landscape* 8 (2–3), 123–130.

Lovata, T.R. and Olton, E. (eds) (2016) *Understanding Graffiti: Multidisciplinary Studies from Prehistory to the Present*. Abingdon: Routledge.
Lowenthal, D. (1962) Not every prospect pleases. What is our criterion for scenic beauty? *Landscape* 12 (2), 19–23.
Lu, S., Li, G. and Xi, M. (2020) The linguistic landscape in rural destinations: A case study of Hongcun village in China. *Tourism Management* 77, 1–9. https://doi.org/10.1016/j.tourman.2019.104005
Lu, X., Martens, B. and Sayer, P. (2022) Examining social class and multilingualism through the linguistic landscape: A methodological proposal. *Linguistic Landscape* 8 (1), 32–55.
Lüdi, G. (2007) Basel: Einsprachig und Heteroglossisch. *Zeitschrift für Literaturwissenschaft und Linguistik* 148, 132–157.
Lüdi, G. (2012) The analysis of the linguistic landscape as a tool for comprehension of companies' language management and practices. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscapes, Multilingualism and Social Change* (pp. 85–105). Berlin: Peter Lang.
Luk, J. (2013) Bilingual language play and local creativity in Hong Kong. *International Journal of Multilingualism* 10 (3), 236–250. https://doi.org/10.1080/14790718.2013.808200
Lusekelo, A. (2019) The linguistic situation in Orkesumet, an urban area in Simanjiro District of Tanzania. *Unizik Journal of Arts and Humanities* 20 (1), 30–60. https://doi.org/10.4314/ujah.v20i1.2
Lusekelo, A. and Alphonce, C. (2018) The linguistic landscape of urban Tanzania: An account of the language of billboards and shop-signs in district headquarters. *Journal of Language, Technology and Entrepreneurship in Africa* 9 (1), 1–28.
Lusekelo, A. and Mdukula, P.C. (2021) The linguistic landscape of urban Tanzania in Dodoma city. *Utafiti* 16 (1), 63–94.
Lyons, K. (2017) #mysanfrancisco: Social media and the conceptual linguistic landscape. https://osf.io/preprints/socarxiv/rqktw (accessed 12 January 2022).
Lyons, K. (2019) Let's get phygital: Seeing through the 'filtered' landscapes of Instagram. *Linguistic Landscape* 5 (2), 179–197. https://doi.org/https://doi.org/10.1075/ll.18025.lyo
Lyons, K. (2020) The quality of quantity. In D. Malinowski and S. Tufi (eds) *Reterritorializing Linguistic Landscapes: Questioning Boundaries and Opening Spaces* (pp. 31–55). London: Bloomsbury.
Lyons, K. and Rodríguez-Ordóñez, I. (2017) Quantifying the linguistic landscape: A study of Spanish-English variation in Pilsen, Chicago. *Spanish in Context* 14 (3), 329–362. https://doi.org/10.1075/sic.14.3.01lyo
Ma, Y. (2018) El paisaje lingüístico: Una nueva herramienta para la enseñanza de E/LE. *Foro de profesores de E/LE* (14), 153–163.
Macalister, J. (2010) Emerging voices or linguistic silence?: Examining a New Zealand linguistic landscape. *Multilingua* 29, 55–75.
Macalister, J. (2012) Language policies, language planning and linguistic landscapes in Timor-Leste. *Language Problems and Language Planning* 36 (1), 25–45. https://doi.org/10.1075/lplp.36.1.02mac
Machetti, S. and Pizzorusso, C. (2020) From graffiti to street art and back: Connections between past and present. In D. Malinowski and S. Tufi (eds) *Reterritorializing Linguistic Landscapes: Questioning Boundaries and Opening Spaces* (pp. 160–176). London: Bloomsbury.
Mackey, A. (2013) *Input, Interaction and Corrective Feedback in L2 Learning*. Oxford: Oxford University Press.
Makoni, S. and Pennycook, A. (2007) Disinventing and reconstituting languages. In S. Makoni and A. Pennycook (eds) *Disinventing and Reconstituting Languages* (pp. 1–41). Clevedon: Multilingual Matters.

Malinowski, D. (2009) Authorship in the linguistic landscape: A multimodal-performative view. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 107–125). New York: Routledge.

Malinowski, D. (2010) Showing seeing in the Korean linguistic cityscape. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 199–215). Bristol: Multilingual Matters.

Malinowski, D. (2015) Opening spaces of learning in the linguistic landscape. *Linguistic Landscape* 1 (1), 95–113. https://doi.org/10.1075/ll.1.1-2.06mal

Malinowski, D. (2016) Localizing the transdisciplinary in practice: A teaching account of a prototype. *L2 Journal* 8 (4) 100–117. http://escholarship.org/uc/item/8q62w9j1

Malinowski, D. (2018) Linguistic landscape. In A. Phakiti, P. De Costa, L. Plonsky and S. Starfield (eds) *The Palgrave Handbook of Applied Linguistics Research Methodology* (pp. 869–886). London: Palgrave Macmillan.

Malinowski, D. and Dubreil, S. (2019) Linguistic landscape and language learning. In C. Chapelle (ed.) *The Encyclopedia of Applied Linguistics* (pp. 1–6). Malden, MA: Wiley. https://doi.org/10.1002/9781405198431.wbeal1492

Malinowski, D. and Tufi, S. (eds) (2020) *Reterritorializing Linguistic Landscapes: Questioning Boundaries and Opening Space*. London: Bloomsbury.

Malinowski, D., Maxim, H.H. and Dubreil, S. (eds) (2020) *Language Teaching in the Linguistic Landscape: Mobilizing Pedagogy in Public Space*. Dordrecht: Springer.

Maly, I. (2016) Detecting social changes in times of superdiversity: An ethnographic linguistic landscape analysis of Ostend in Belgium. *Journal of Ethnic and Migration Studies* 42 (5), 703–723. https://doi.org/10.1080/1369183X.2015.1131149

Malykhina, S. (2020) Change and continuity in the urban semiosphere of Post-Soviet Kharkiv. *East/West: Journal of Ukrainian Studies* 7 (1), 55–104. https://doi.org/10.21226/ewjus569

Manan, S.A., David, M.K., Dumanig, F.P. and Naqeebullah, K. (2015) Politics, economics and identity: Mapping the linguistic landscape of Kuala Lumpur, Malaysia. *International Journal of Multilingualism* 12 (1), 31–50. https://doi.org/10.1080/14790718.2014.905581

Marshall, S. (2021) Navigating COVID-19 linguistic landscapes in Vancouver's North Shore: Official signs, grassroots literacy artefacts, monolingualism, and discursive convergence. *International Journal of Multilingualism*. https://doi.org/10.1080/14790718.2020.1849225

Marsick, V.J. and Watkins, K.E. (1990) *Informal and Incidental Learning in the Workplace*. London: Routledge.

Martel, M. and Pâquet, M. (2010) *Langue et politique au Canada et au Québec: Une synthèse historique Montréal*. Montreal: Boréal.

Marten, H.F. (2010) Linguistic landscape under strict state language policy: Reversing the Soviet legacy in a regional centre in Latvia. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 115–132). Bristol: Multilingual Matters.

Marten, H.F. (2012) 'Latgalian is not a language': Linguistic landscapes in Eastern Latvia and how they reflect centralist attitudes. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 19–35). Basingstoke: Palgrave Macmillan.

Marten, H.F. (2017) Deutsch in den Linguistic Landscapes des Baltikums und Spot German in Zypern – Gemeinsamkeiten und Grenzen beider Ansätze. In H.F. Marten and M. Saagpakk (eds) *Linguistic Landscapes und Spot German an der Schnittstelle von Sprachwissenschaft und Deutschdidaktik* (pp. 157–181). Munich: Iudicium.

Marten, H.F. and Saagpakk, M. (2016) Die deutsche Sprache im öffentlichen Raum: Möglichkeiten und Nutzwert von „Linguistic Landscapes"- und „Spot German"-Projekten. *Germanistisches Jahrbuch 2015 für Estland, Lettland und Litauen* (pp. 73–81). Vilnius: Vilnius Academy of Fine Arts Press.

Marten, H.F. and Saagpakk, M. (eds) (2017) *Linguistic landscapes und Spot German an der Schnittstelle von Sprachwissenschaft und Deutschdidaktik*. Munich: Iudicium.

Marten, H.F. and Saagpakk, M. (2019) The monolingual habitus of German society challenging the interests of an autochthonous minority language: Linguistic landscapes in the Sorbian 'capital' of Bautzen/Budyšin. *Apples – Journal of Applied Language Studies* 13 (3), 77–106. https://doi.org/10.17011/apples/urn.201909124143.

Marten, H.F., Van Mensel, L. and Gorter, D. (2012) Studying minority languages in the linguistic landscape. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 1–18). Basingstoke: Palgrave Macmillan.

Marten, H.F., Lazdiņa, S., Pošeiko, S. and Murinska, S. (2012) Between old and new killer languages? Linguistic transformation, linguae francae and languages of tourism in the Baltic States. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscapes, Multilingualism and Social Change* (pp. 289–308). Berlin: Peter Lang.

Martena, S. and Marten, H.F. (2021) Latgalian functions, discourses and education a decade Later: Is the glass half-full or half-empty? Paper at XVIII ICML Bilbao, 24–26 March. See https://www.liepu.lv/uploads/dokumenti/projekti/latvala/Martena%20and%20Marten%20ICML%20Bilbao%202021%20Latgalian_final.pdf (accessed 12 January 2022).

Martin, E. (2006) *Marketing Identities through Language: English and Global Imagery in French Advertising*. London: Palgrave Macmillan.

Martín Rojo, L. (2014) Taking over the square: The role of linguistic practices in contesting urban spaces. *Journal of Language and Politics* 13 (4), 623–652. https://doi.org/10.1075/jlp.13.4.03mar

Martín Rojo, L. (ed.) (2016) *Occupy: The Spatial Dynamics of Discourse in Global Protest Movements*. Amsterdam: Benjamins.

Martinez, F. (2015) English in advertising in Colombia. *World Englishes* 34 (4), 600–619. https://doi.org/10.1111/weng.12163

Martínez Ibarra, F. (2021) An analysis of how business owners use Valencian and Spanish in the linguistic landscape. In P. Gubitosi and M.F. Ramos Pellicia (eds) *Linguistic Landscape in the Spanish-Speaking World* (pp. 293–312). Philadelphia, PA: Benjamins.

Masai, Y. (1972) *Tokyo no seikatsu chizu*. Tokyo: Jijitsushinsha.

Matras, Y. (2020) *Language Contact*. Cambridge: Cambridge University Press.

Matras, Y., Gaiser, L. and Reershemius, G. (2018) Multilingual repertoire management and illocutionary functions in Yiddish signage in Manchester. *Journal of Pragmatics* 135, 53–70.

Mautner, G. (2012) Language, space and the law: A study of directive signs. *The International Journal of Speech, Language and the Law* 19 (2), 189–217. https://doi.org/10.1558/ijsll.v19i2.189

Maxim, H. (2020) A methodological and pedagogical framework for designing L2 student-based linguistic landscape research. In D. Malinowski and S. Tufi (eds) *Questioning Boundaries, Opening Spaces: Reterritorializing Linguistic Landscapes* (pp. 346–363). London: Bloomsbury.

May, S. (ed.) (2014) *The Multilingual Turn: Implications for SLA, TESOL and Bilingual Education*. Abingdon: Routledge.

McArthur, T (2000) Interanto: The global language of signs. *English Today* 16 (1), 33–43.

McCormick, K. and Agnihotri, R.K. (2009) Forms and functions of English in multilingual signage. *English Today* 25 (3), 11–17. https://doi.org/10.1017/S0266078409990228

McDermott, A. (2019) The linguistic landscape of Post-Soviet Bishkek. *Region* 8 (2), 227–256.

McKiernan, T. (2019) The linguistic landscape of a Malaysian border town: How English language is allowed to thrive outside of the law. *English Today* 37 (4), 224–235. https://doi.org/10.1017/S0266078419000506

McKinley, J. and Rose, H. (eds) (2020) *The Routledge Handbook of Research Methods in Applied Linguistics*. Abingdon: Routledge.

Mdukula, P.C. (2017) The linguistic landscape of Muhimbili National Hospital in Tanzania: Its implication for access to information. *Journal of Linguistics and Language in Education* 11 (2), 87–108. https://journals.udsm.ac.tz/index.php/jlle/article/view/2313

Mdukula, P.C. (2021) The linguistic landscape of public health institutions in Tanzania. In G. Niedt and C. Seals (eds) *Linguistic Landscapes Beyond the Language Classroom* (pp. 77–96). New York: Bloomsbury.

Meganathan, R. (2017) The linguistic landscape of New Delhi: A precursor and a successor of language policy. In H. Coleman (ed.) *Multilingualisms and Development: Selected Proceedings of the 11th Language & Development Conference, New Delhi, India 2015* (pp. 225–238). London: British Council. https://issuu.com/britishcouncil-india/docs/multilingualisms_and_development

Melo-Pfeifer, S. (ed.) (2023) *Linguistic Landscapes in (Teacher) Education: Multilingual Teaching and Learning Inside and Beyond the Classroom*. Cham: Springer.

Melo-Pfeifer, S. and Lima-Hernandes, M.C. (eds) (2020) Paisagens lingüísticas. *Domínios de Lingu@gem* 14, 4. https://www.seer.ufu.br/index.php/dominiosdelinguagem/article/view/57129/29835

Mendisu, B.S., Malinowski, D. and Woldemichael, E. (2016) Absence from the linguistic landscape as de facto language policy: The case of two local languages in Southern Ethiopia. In R.J. Blackwood, E. Lanza and H. Woldemariam (eds) *Negotiating and Contesting Identities in Linguistic Landscapes* (pp. 117–130). London: Bloomsbury.

Menken, K., Pérez Rosario, V. and Guzman Valerio, L.A. (2018) Increasing multilingualism in schoolscapes: New scenery and language education policies. *Linguistic Landscape* 4 (2), 101–127. https://doi.org/10.1075/ll.17024.men

Mettewie, L., Lamarre, P. and Van Mensel, L. (2012) Clins d'oeil bilingues dans le paysage linguistique de Montréal et Bruxelles: Analyse et illustration de mécanismes parallèles. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscapes, Multilingualism and Social Change* (pp. 201–216). Berlin: Peter Lang.

Mežek, Š. (2009) English in Slovenia: Status, functions, and features. *English Today* 25 (4), 28–38.

Mezgec, M. (2016) Linguistic landscape as a mirror: The case of the Slovene minority in Italy. *Razprave in gradivo* 77, 67–85.

Michalovich, A., Naaman, S., Trijnes, M., Agbaria, I. and Shohamy, E. (2021) Dynamic walking tour methodology for LL research: A case study in Jaffa. In G. Niedt and C. Seals (eds) *Linguistic Landscapes beyond the Language Classroom* (pp. 217–237). New York: Bloomsbury.

Milani, T.M. (2013a) Expanding the queer linguistic scene: Multimodality, space and sexuality at a South African university. *Journal of Language and Sexuality* 2 (2), 206–234. https://doi.org/10.1075/jls.2.2.02mil

Milani, T.M. (2013b) Whither linguistic landscapes? The sexed facets of ordinary signs. *Tilburg Papers in Culture Studies*, No. 53, Tilburg University.

Milani, T.M. (2014) Sexed signs: Queering the scenery. *International Journal of the Sociology of Language* 2014 (228), 201–225. https://doi.org/10.1515/ijsl-2014-0011

Milani, T.M. and Levon, E. (2016) Sexing diversity: Linguistic landscapes of homonationalism. *Language & Communication* 51, 69–86. https://doi.org/10.1016/j.langcom.2016.07.002

Milani, T.M., Levon, E., Gafter, R.J. and Or, I.G. (2018) Tel Aviv as a space of affirmation versus transformation: Language, citizenship, and the politics of sexuality in Israel. *Linguistic Landscape* 4 (3), 278–297. https://doi.org/10.1075/ll.18006.mil

Mitchell, T.D. (2010) 'A Latino community takes hold': Reproducing semiotic landscapes in media discourse. In A. Jaworski and C. Thurlow (eds) *Semiotic Landscapes: Language, Image, Space* (pp. 168–186). London: Continuum.

Mitschke, A. (2019) A psychological approach to the responses of passers-by to the linguistic landscape: A study in the city of Aosta (Italy). In M. Castillo Lluch, R. Kailuweit and C.D. Pusch (eds) *Linguistic Landscape Studies: The French Connection* (pp. 175–204). Freiburg: Rombach Verlag.

Mitschke, A. (2022) Welche Lerninhalte die Sprachlandschaft(sforschung) dem Sprachenunterricht bietet – veranschaulicht am Beispiel der Place Émile Chanoux in Aosta (Italien). In L. Eibensteiner, A. Kropp, J. Müller-Lancé and C. Schlaak (eds) *Neue Wege des Französischunterrichts: Linguistic Landscaping und Mehrsprachigkeitsdidaktik im digitalen Zeitalter* (pp. 255–288). Tübingen: Narr Francke Attempto.

Mokwena, L. (2020) 'As long as I understand the customers, I will answer them': The translingual Tuckshop vs. the pingizat monolingual. In A. Abelhay, S. Makoni and C. Severo (eds) *Language Planning and Policy: Ideologies, Ethnicities, and Semiotic Spaces of Power* (pp. 183–201). Newcastle-Upon-Tyne: Cambridge Scholars Publishers.

Monje, J. (2017) Hindi bayani/not a hero: The linguistic landscape of protest in Manila. *Social Inclusion* 5 (4), 14–28. https://doi.org/10.17645/si.v5i4.1151

Monnier, D. (1986) *La perception de la situation linguistique par les Québécois : Analyse des résultats d'un sondage effectué en octobre 1985*. Montreal: Conseil de la langue française.

Monnier, D. (1989) *Langue d'accueil et langue de service dans les commerces à Montréal*. Montreal : Conseil de la langue française.

Moore, I. (2014) Negotiating public space: The post-Soviet linguistic landscape in Kazakhstan. *The International Journal of Communication and Linguistic Studies* 11 (4), 1–21. https://doi.org/10.18848/2327-7882/CGP/v11i04/43635

Moore, I. (2019a) Linguistic, ethnic and cultural tensions in the sociolinguistic landscape of Vilnius: A diachronic analysis. In M. Pütz and N. Mundt (eds) *Expanding the Linguistic Landscape: Linguistic Diversity, Multimodality and the Use of Space as a Semiotic Resource* (pp. 229–263). Bristol: Multilingual Matters.

Moore, I. (2019b) Vilnius memoryscape. *Linguistic Landscape* 5 (3), 248–280. https://doi.org/10.1075/ll.18022.moo

Moriarty, M. (2012) Language ideological debates in the linguistic landscape of an Irish tourist town. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 74–89). Basingstoke: Palgrave Macmillan.

Moriarty, M. (2014a) Languages in motion: Multilingualism and mobility in the linguistic landscape. *International Journal of Bilingualism* 18 (5), 457–463. https://doi.org/10.1177/1367006913484208

Moriarty, M. (2014b) Contesting language ideologies in the linguistic landscape of an Irish tourist town. *International Journal of Bilingualism* 18 (5), 464–477. https://doi.org/10.1177/1367006913484209

Moriarty, M. (2015) Indexing authenticity: The linguistic landscape of an Irish tourist town. *International Journal of the Sociology of Language* (232), 195–214.

Moriarty, M. (2019) Regimes of voice and visibility in the refugeescape: A semiotic landscape approach. *Linguistic Landscape* 5 (2), 142–159. https://doi.org/10.1075/ll.19002.mor

Moriarty, M. and Järlehed, J. (2019) Multilingual creativity and play in the semiotic landscape: An introduction. *International Journal of Multilingualism* 16 (1), 1–6.

Moseley, C. (ed.) (2010) *Atlas of the World's Languages in Danger* (3rd edn). Paris: UNESCO Publishing. https://www.unesco.org/culture/en/endangeredlanguages/atlas

Motschenbacher, H. (2020a) Walking on Wilton Drive: A linguistic landscape analysis of a homonormative space. *Language and Communication* 72, 25–43. https://doi.org/10.1016/j.langcom.2020.02.002

Motschenbacher, H. (2020b) Affective regimes on Wilton Drive: A multimodal analysis. *Social Semiotics* 1–20.

Muaka, L. (2018) The impact of youth language on linguistic landscapes in Kenya and Tanzania. In E. Hurst-Harosh and F.K. Erastus (eds) *African Youth Languages: New*

Media, Performing Arts and Sociolinguistic Development (pp. 123–145). Cham: Palgrave Macmillan.

Mulyawan, I.W. (2021) Maintaining and revitalising Balinese language in public space. *Indonesia and the Malay World*. https://doi.org/10.1080/13639811.2021.1910356

Municipality of Donostia (2020) Plan general de Euskera de Donostia/San Sebastián 2020–2024. See https://www.donostiaeuskaraz.eus/download/1584 (accessed 12 January 2022).

Muth, S. (2008) Multiethnic but multilingual as well?: The linguistic landscapes of Vilnius. In S. Sahel and R. Vogel (eds) *Norddeutsches Linguistisches Kolloquium* (pp. 121–146). Bielefeld: eCollections.

Muth, S. (2012) The linguistic landscapes of Chişinău and Vilnius: Linguistic landscape and the representation of minority languages in two post-Soviet capitals. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 204–224). Basingstoke: Palgrave Macmillan.

Muth, S. (2014) Linguistic landscapes on the other side of the border: Signs, language and the construction of cultural identity in Transnistria. *International Journal of the Sociology of Language* 227, 25–46.

Muth, S. (2015) 'Ruralscapes' in post-Soviet Transnistria: Ideology and language use on the fringes of a contested space. In M. Laitinen and A. Zabrodskaja (eds) *Dimensions of Sociolinguistic Landscapes in Europe: Materials and Methodological Solutions* (pp. 199–231). Frankfurt am Main: Peter Lang.

Nadel, E. and Fishman, J.A. (1977) English in Israel: A sociolinguistic study. In J.A. Fishman, R.L. Cooper and A.W. Conrad (eds) *The Spread of English: The Sociology of English as an Additional Language* (pp. 137–167). Rowley, MA: Newbury House.

Naik, A.K. (2002) Globalization: Evidences from linguistic landscaping of an industrial city. In N.H. Itagi and S.K. Singh (eds) *Linguistic Landscaping in India with Particular Reference to the New States* (pp. 132–138). Mysore: Central Institute of Indian Languages.

Nash, J. (2016) Is linguistic landscape necessary? *Landscape Research* 41 (3), 380–384.

Nature (2021) Editorial and publishing policies, section: Digital image integrity and standards. See https://www.nature.com/srep/journal-policies/editorial-policies/#digital-image (accessed 12 January 2022).

Nelde, P.H. (1987) Language contact means language conflict. *Journal of Multilingual and Multicultural Development* 8 (1–2), 33–42.

Neumann, M.M., Hood, M., Ford, R.M. and Neumann, D.L. (2012) The role of environmental print in emergent literacy. *Journal of Early Childhood Literacy* 12 (3), 231–258. https://doi.org/10.1177/1468798411417080

Neves, A.C. (2016) The linguistic landscape of Macau: A quantitative analysis. In L. Sciriha (ed.) *International Perspectives on Bilingualism* (pp. 43–62). Newcastle Upon Tyne: Cambridge Scholars.

Nguyen, A.K. (2022) Space and time in Vietnamese heritage language maintenance. *Journal of Multilingual and Multicultural Development* 43 (5), 424–437.

Niedt, G. and Seals, C. (eds) (2021) *Linguistic Landscape beyond the Classroom*. London: Bloomsbury.

Nikolaou, A. (2017) Mapping the linguistic landscape of Athens: The case of shop signs. *International Journal of Multilingualism* 14 (2), 160–182. https://doi.org/10.1080/14790718.2016.1159209

Nikolaou, A. and Shah, S. (2019) Linguistic landscape in Swat, Pakistan: A survey of shop signs. *Kashmir Journal of Language Research* 22, 21–39.

Nofal, M. and Mansour, A. (2014) The linguistic landscape in Jordan: Opinions and attitudes. *Global Journal of Interdisciplinary Social Studies* 3 (3), 27–37.

Nunes, P., Onofri, L., Cenoz, J. and Gorter, D. (2008) Language diversity in urban landscapes: An econometric study. Working Paper 199. Fondazione Eni Enrico Mattei. See https://services.bepress.com/feem/paper199/ (accessed 12 February 2023).

O'Connor, B.H. and Zentz, L.R. (2016) Theorizing mobility in semiotic landscapes: Evidence from South Texas and Central Java. *Linguistic Landscape* 2 (1), 26–51. https://doi.org/10.1075/ll.2.1.02oco

Ogiermann, E. and Bella, S. (2021) On the dual role of expressive speech acts: Relational work on signs announcing closures during the Covid-19 pandemic. *Journal of Pragmatics* 184, 1–17. https://doi.org/10.1016/j.pragma.2021.07.020

Ojeda, A.B. and Kieffer, M. (2020) Touristification. Empty concept or element of analysis in tourism geography? *Geoforum* 115, 143–145.

Ong, K., Ghesquière, J. and Serwe, S. (2013) Frenglish shop signs in Singapore: Creative and novel blending of French and English in the shop fronts of beauty and food businesses in Singapore. *English Today* 29 (3), 19–25. https://doi.org/10.1017/S0266078413000278

Onofri, L., Nunes, P.A.L.D., Cenoz, J. and Gorter, D. (2010) Economic preferences for language diversity: Myth or reality? An attempt to estimate the economic value of the linguistic landscape. SUSDIV Paper 15.2010. Fondazione Eni Enrico Mattei. See https://www.academia.edu/24596357 (accessed 12 February 2023).

Onofri, L., Nunes, P.A.L.D., Cenoz, J. and Gorter, D. (2013) Linguistic diversity and preferences: Econometric evidence from European cities. *Journal of Economics and Econometrics* 56 (1), 39–60.

O'Rourke, B., Pujolar, J. and Ramallo, F. (2015) New speakers of minority languages: The challenging opportunity. *International Journal of the Sociology of Language* 231, 1–20.

Ortega, L. (2019) SLA and the study of equitable multilingualism. *The Modern Language Journal* 103, 23–38.

Östlund, U., Kidd, L., Wengström, Y. and Rowa-Dewar, N. (2011) Combining qualitative and quantitative research within mixed method research designs: A methodological review. *International Journal of Nursing Studies* 48 (3), 369–383.

Otheguy, R., García, O. and Reid, W. (2015) Clarifying translanguaging and deconstructing named languages: A perspective from linguistics. *Applied Linguistics Review* 6 (3), 281–307.

Otsuji, E. and Pennycook, A. (2010) Metrolingualism: Fixity, fluidity and language in flux. *International Journal of Multilingualism* 7 (3), 240–254.

Pakarinen, S. and Björklund, S. (2018) Multiple language signage in linguistic landscapes and students' language practices: A case study from a language immersion setting. *Linguistics and Education* 44, 4–11. https://doi.org/10.1016/j.linged.2017.10.005

Pakir, A. (2019) The Kachruvian paradigm and its range and depth of influence. *World Englishes* 38 (1–2), 174–184.

Pan, C. (2008) Die Bedeutung von Minderheiten-und Sprachschutz für die kulturelle Vielfalt Europas. *Europäisches Journal für Minderheitenfragen* 1 (1), 11–33. https://doi.org/10.1007/s12241-007-0001-9

Pandey, A. (2017) When size matters: Multimodality, material ethnography, and signage in Trumps race to the White House. *Linguistic Landscape* 3 (1), 25–55.

Papen, U. (2012) Commercial discourses, gentrification and citizens' protest: The linguistic landscape of Prenzlauer Berg, Berlin. *Journal of Sociolinguistics* 16 (1), 56–80. https://doi.org/10.1111/j.1467-9841.2011.00518.x

Pastor, A. (2021) Ethnolinguistic vitality and linguistic landscape: The status of Spanish in Dallas, TX. In P. Gubitosi and M.F. Ramos Pellicia (eds) *Linguistic Landscape in the Spanish-Speaking World* (pp. 73–104). Philadelphia, PA: Benjamins.

Patterson, B. and West, R. (2018) *Socio Linguistics*. Waltham Abbey: Edtech Press.

Pavlenko, A. (2009) Language conflict in post-Soviet linguistic landscapes. *Journal of Slavic Linguistics* 17 (1–2), 247–274. https://slavica.indiana.edu/journalListings/jsl/volume17_No1-2

Pavlenko, A. (2010) Linguistic landscape of Kyiv, Ukraine: A diachronic study. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 133–150). Bristol: Multilingual Matters.

Pavlenko, A. (2012) Transgression as the norm: Russian in linguistic landscape of Kyiv, Ukraine. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 36–56). Basingstoke: Palgrave Macmillan.

Pavlenko, A. (2013) Multilingualism in post-Soviet successor states. *Language and Linguistics Compass* 7 (4), 262–271.

Pavlenko, A. and Mullen, A. (2015) Why diachronicity matters in the study of linguistic landscapes. *Linguistic Landscape* 1 (1/2), 114–132. https://doi.org/10.1075/ll.1.1-2.07pav

Payne, M. (2020) Ethnolinguistic landscaping in Sheffield: The invisible repertoires of the Slovak Roma. In K. Horner and J. Dailey-O'Cain (eds) *Multilingualism, (Im)mobilities and Spaces of Belonging* (pp. 39–59). Bristol: Multilingual Matters.

Peck, A. and Banda, F. (2014) Observatory's linguistic landscape: Semiotic appropriation and the reinvention of space. *Social Semiotics* 24 (3), 302–323. https://doi.org/10.1080/10350330.2014.896651

Peck, A. and Stroud, C. (2015) Skinscapes. *Linguistic Landscape* 1 (1–2), 133–151.

Peck, A., Stroud, C. and Williams, Q. (eds) (2019) *Making Sense of People and Place in Linguistic Landscapes*. London: Bloomsbury.

Pen International (1996) *Universal Declaration of Linguistic Rights*. Barcelona: Pen International.

Pennycook, A. (2007) The myth of English as an international language. In S. Makoni and A. Pennycook (eds) *Disinventing and Reconstituting Languages* (pp. 90–115). Clevedon: Multilingual Matters.

Pennycook, A. (2009) Linguistic landscapes and the transgressive semiotics of graffiti. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 302–312). New York: Routledge.

Pennycook, A. (2010) *Language as a Local Practice*. Abingdon: Routledge.

Pennycook, A. (2017) Translanguaging and semiotic assemblages. *International Journal of Multilingualism* 14 (3), 269–282.

Pennycook, A. (2019) The landscape returns the gaze: Bikescapes and the new economies. *Linguistic Landscape* 5 (3), 217–247.

Pennycook, A. and Otsuji, E. (2015) Making scents of the landscape. *Linguistic Landscape* 1 (3), 191–212. https://doi.org/10.1075/ll.1.3.01pen

Persson, A. (2019) *Framing Social Interaction: Continuities and Cracks in Goffman's Frame Analysis*. New York: Routledge.

Pesch, A.M. (2021) Semiotic landscapes as constructions of multilingualism: A case study of two kindergartens. *European Early Childhood Education Research Journal* 29 (3), 363–380. https://doi.org/10.1080/1350293X.2021.1928725

Pesch, A.M., Dardanou, M. and Sollid, H. (2021) Kindergartens in Northern Norway as semiotic landscapes. *Linguistic Landscape* 7 (3), 314–343. https://doi.org/10.1075/ll.20025.pes

Phan, N. and Starks, D. (2020) Language in public space and language policies in Hanoi Old Quarter, Vietnam: A dynamic understanding of the interaction. *Language Policy* 19 (1), 111–138. https://doi.org/10.1007/s10993-019-09526-z

Phillipson, R. (1992) *Linguistic Imperialism*. Oxford: Oxford University Press.

Phillipson, R. (2009) English in globalisation, a lingua franca or a lingua frankensteinia? *TESOL Quarterly* 43 (2), 335–339.

Pietikäinen, S. (2014) Spatial interaction in Sámiland: Regulative and transitory chronotopes in the dynamic multilingual landscape of an indigenous Sámi village. *International Journal of Bilingualism* 18 (5), 478–490. https://doi.org/10.1177/1367006913484210

Pietikäinen, S. and Kelly-Holmes, H. (2011) The local political economy of languages in a Sámi tourism destination: Authenticity and mobility in the labeling of souvenirs. *Journal of Sociolinguistics* 15 (3), 323–346. https://doi.org/10.1111/j.1467-9841.2011.00489.x

Pietikäinen, S., Lane, P., Salo, H. and Laihiala-Kankainen, S. (2011) Frozen actions in the arctic linguistic landscape: A nexus analysis of language processes in visual space. *Inter-*

national Journal of Multilingualism 8 (4), 277–298. https://doi.org/10.1080/14790718.2011.555553

Pietikäinen, S., Kelly-Holmes, H., Jaffe, A. and Coupland, N. (eds) (2016) *Sociolinguistics from the Periphery: Small Languages in New Circumstances*. New York: Cambridge University Press.

Piller, I. (2001) Identity constructions in multilingual advertising. *Language in Society* 30, 153–186.

Pink, S. (2007) Walking with video. *Visual Studies* 22 (3), 240–252. https://doi.org/10.1080/14725860701657142

Pink, S. (2021) *Doing Visual Ethnography* (4th edn). London: Sage.

Plataforma per la Llengua (2022) L'ONG del català. See https://www.plataforma-llengua.cat/en_index (accessed 12 January 2022).

Plummer, R. (2006) Brazil's ad men face billboard ban. BBC-news. See https://news.bbc.co.uk/2/hi/business/5355692.stm (accessed 20 January 2022).

Pošeiko, S. (2015) The Latvian language in the linguistic landscape of Daugavpils (the middle of the 19th century-today). *The Journal of Education, Culture, and Society* 6 (2), 320–336.

Pošeiko, S. (2019) Glocal commercial names in LL of Baltic States. In S. Lazdina and H.F. Marten (eds) *Multilingualism in the Baltic States* (pp. 369–405). London: Palgrave McMillan.

Poveda, D. (2012) Literacy artifacts and the semiotic landscape of a Spanish secondary school. *Reading Research Quarterly* 47 (1), 61–88. https://doi.org/10.1002/RRQ.010

Prapobratanakul, C. (2016) Inside the shop names: Hybridity, language awareness and globalization in the linguistic landscape of a local commercial neighborhood in Bangkok. *Manusya: Journal of Humanities* 19 (3), 26–37. https://doi.org/10.1163/26659077-01903003

Protocol (2016) Protocol to ensure language rights. See https://protokoloa.eus/wp-content/uploads/2017/06/protokoloa_en.pdf (accessed 31 January 2021).

Puma-Ninacuri, C. and Narváez, D. (2021) Linguistic landscape in Otavalo: Kichwa, Spanish or English? In P. Gubitosi and M.F. Ramos Pellicia (eds) *Linguistic Landscape in the Spanish-Speaking World* (pp. 313–340). Philadelphia, PA: Benjamins.

Purschke, C. (2017a) Crowdsourcing the linguistic landscape of a multilingual country. Introducing lingscape in Luxembourg. *Linguistik Online* 85 (6). https://doi.org/10.13092/lo.85.4086

Purschke, C. (2017b) (T)apping the linguistic landscape: Methodological challenges and the scientific potential of a citizen-science approach to the study of social semiotics. *Linguistic Landscape* 3 (3), 246–266. https://doi.org/10.1075/ll.17023.pur

Purschke, C. and Trusch, K. (2021) Mit Lingscape auf Pad in der Stadt. Ein Schulprojekt zu gesellschaftlicher Mehrsprachigkeit in Windhoek. In H.F. Marten and E. Ziegler (eds) *Linguistic Landscapes im deutschsprachigen Kontext: Forschungsperspektiven, Methoden und Anwendungsmöglichkeiten im Unterricht und Sprachmarketing* (pp. 403–424). Berlin: Peter Lang.

Pütz, M. and Mundt, N. (eds) (2019a) *Expanding the Linguistic Landscape: Linguistic Diversity, Multimodality and the Use of Space as a Semiotic Resource*. Bristol: Multilingual Matters.

Pütz, M. and Mundt, N. (2019b) Multilingualism, multimodality and methodology: Linguistic landscape research in the context of assemblages, ideologies and (in)visibility: An introduction. In M. Pütz and N. Mundt (eds) *Expanding the Linguistic Landscape: Linguistic Diversity, Multimodality and the Use of Space as a Semiotic Resource* (pp. 1–22). Bristol: Multilingual Matters.

Puzey, G. (2011) Signscapes and minority languages: Language conflict on the street. In E. Foust and S. Fuggle (eds) *Word on the Street: Reading, Writing and Inhabiting Public Space*. London: Institute of Germanic and Romance Studies.

Puzey, G. (2012a) Two-way traffic: How linguistic landscapes reflect and influence the politics of language. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 127–147). Basingstoke: Palgrave Macmillan.

Puzey, G. (2012b) New research directions in toponomastics and linguistic landscapes. *Onoma* 46, 211–226. https://doi.org/10.2143/ONO.46.0.2975535

Puzey, G. (2016) Linguistic landscapes. In C. Hough (ed.) *The Oxford Handbook of Names and Naming* (pp. 395–411). Oxford: Oxford University Press.

Quam, J. and Hamilton, H.E. (2021) From part of the scenery to curricular resources: Authentic signs as portals to cultural practices within a residential German language immersion program. In G. Niedt and C. Seals (eds) *Linguistic Landscape beyond the Classroom* (pp. 13–38). London: Bloomsbury.

Radwańska-Williams, J. (2018) Reading the city: The linguistic and semiotic landscape of Macao's San Ma Lo. In A. Curtis and R. Sussex (eds) *Intercultural Communication in Asia: Education, Language and Values* (pp. 139–179). Cham: Springer.

Ramamoorthy, L. (2002) Linguistic landscaping and reminiscence of French legacy: The case of Pondicherry. In N.H. Itagi and S.K. Singh (eds) *Linguistic Landscaping in India with Particular Reference to the New States* (pp. 118–131). Mysore: Central Institute of Indian Languages.

Ramos Pellicia, M.F. (2021) The Escondido swap meet. In M.F. Ramos Pellicia and P. Gubitosi (eds) *Linguistic Landscape in the Spanish-Speaking World* (pp. 183–214). Philadelphia, PA: Benjamins.

Raos, V. (2018) Bilingual street signs policy in EU member states: A comparison. *Journal of Multilingual and Multicultural Development* 39 (10), 895–911. https://doi.org/10.1080/01434632.2018.1454455

Rasinger, S.M. (2014) Linguistic landscapes in Southern Carinthia (Austria). *Journal of Multilingual and Multicultural Development* 35 (6), 580–602.

Rasinger, S.M. (2018) Constructing Banglatown: Linguistic landscapes in London's East End. *Linguistic Landscape* 4 (1), 72–95. https://doi.org/10.1075/ll.16015.ras

Rastall, P. (2003) Following the signs-English road hieroglyphs? *English Today* 19 (4), 57–60.

Rayner, K., Rotello, C.M., Stewart, A.J., Keir, J. and Duffy, S.A. (2001) Integrating text and pictorial information: Eye movements when looking at print advertisements. *Journal of Experimental Psychology: Applied* 7 (3), 219–226. https://doi.org/10.1037/1076-898X.7.3.219

Raza, K., Coombe, C. and Reynolds, D. (eds) (2021) *Policy Development in TESOL and Multilingualism: Past, Present and the Way Forward*. Berlin: Springer.

Reershemius, G. (2020) Semiotic rural landscapes and the performance of community in villages: A case study from low German-speaking northern Germany. *Linguistic Landscape* 6 (2), 128–154. https://doi.org/10.1075/ll.19027.ree

Reh, M. (2004) Multilingual writing: A reader-oriented typology – with examples from Lira Municipality (Uganda). *International Journal Sociology of Language* 170, 1–41.

Restrepo-Ramos, F.D. (2020) Public signage in a multilingual Caribbean enclave: The linguistic landscape of Old Providence and Santa Catalina, Colombia. In D.P. Pascual y Cabo and I. Elola (eds) *Current Theoretical and Applied Perspectives on Hispanic and Lusophone Linguistics* (pp. 273–294). Amsterdam: Benjamins. https://doi.org/10.1075/ihll.27.13res

Rexhausen, J. (2012) The economic value of on-premise signage. Report prepared for the Signage Foundation, University of Cincinnati.

Ricento, T. (ed.) (2000) *Ideology, Politics and Language Policies: Focus on English*. Amsterdam: Benjamins.

Ritzer, G. (2011) *The McDonaldization of Society* 6. Los Angeles, CA: Pine Forge Press.

Roberts, L. and Siyanova-Chanturia, A. (2013) Using eye-tracking to investigate topics in L2 acquisition and L2 processing. *Studies in Second Language Acquisition* 35 (2), 213–235.

Robertson, R. (1995) Glocalization: Time-space and homogeneity-heterogeneity. In M. Featherstone, S. Lash and R. Robertson (eds) *Global Modernities* (pp. 25–44). London: Sage.
Roos, J. and Nicholas, H. (2020) Using young learners' language environments for EFL learning: Ways of working with linguistic landscapes. *AILA Review* 32 (1), 91–111. https://doi.org/10.1075/aila.00022.roo
Rose, G. (2016) *Visual Methodologies. An Introduction to Researching with Visual Materials* (4th edn). London: Sage.
Rose, J. and Johnson, C.W. (2020) Contextualizing reliability and validity in qualitative research: Toward more rigorous and trustworthy qualitative social science in leisure research. *Journal of Leisure Research* 51 (4), 432–451.
Rosenbaum, Y., Nadel, E., Cooper, R.L. and Fishman J.A. (1974) English on Keren Kayemet Street. Paper prepared for the Eighth World Congress of Sociology, Toronto, Canada (quoted in Tulp, 1978).
Rosenbaum, Y., Nadel, E., Cooper, R.L. and Fishman, J.A. (1977) English on Keren Kayemet Street. In J.A. Fishman, R.L. Cooper and A.W. Conrad (eds) *The Spread of English: The Sociology of English as an Additional Language* (pp. 179–196). Rowley, MA: Newbury House.
Rosendal, T. (2009) Linguistic markets in Rwanda: Language use in advertisements and on signs. *Journal of Multilingual and Multicultural Development* 30 (1), 19–39. https://doi.org/10.1080/01434630802307882
Rosendal, T. and Amini Ngabonziza, J.D.D. (2022) Amid signs of change: Language policy, ideology and power in the linguistic landscape of urban Rwanda. *Language Policy*. https://doi.org/10.1007/s10993-022-09624-5
Rose-Redwood, R., Alderman, D. and Azaryahu, M. (eds) (2018) *The Political Life of Urban Streetscapes: Naming, Politics, and Place*. Abingdon: Routledge.
Ross, N.J. (1997) Signs of international English. *English Today* 13, 29–33. https://doi.org/10.1017/S0266078400009597
Ross, J.I. (ed.) (2016) *Routledge Handbook of Graffiti and Street Art*. Abingdon: Routledge.
Rowland, L. (2013) The pedagogical benefits of a linguistic landscape project in Japan. *International Journal of Bilingual Education and Bilingualism* 16 (4), 494–505. https://doi.org/10.1080/13670050.2012.708319
Rubdy, R. (2015) A multimodal analysis of the graffiti commemorating the 26/11 Mumbai terror attacks: Constructing self-understandings of a senseless violence. In R. Rubdy and S. Ben Said (eds) *Conflict, Exclusion and Dissent in the Linguistic Landscape* (pp. 280–303). Basingstoke: Palgrave Macmillan.
Rubdy, R. (2015) Conflict and exclusion: The linguistic landscape as an arena of contestation. In R. Rubdy and S. Ben Said (eds) *Conflict, Exclusion and Dissent in the Linguistic Landscape* (pp. 1–24). Basingstoke: Palgrave Macmillan.
Rubdy, R. and Ben Said, S. (eds) (2015) *Conflict, Exclusion and Dissent in the Linguistic Landscape*. Basingstoke: Palgrave Macmillan.
Ruzaitė, J. (2017) The linguistic landscape of tourism: Multilingual signs in Lithuanian and Polish resorts. *Journal of Estonian & Finno-Ugric Linguistics* 8 (1), 197–220. https://doi.org/10.12697/jeful.2017.8.1.11
Saagpakk, M. (2017) Linguistic-Landscapes-Projekte im schulischen und universitären Unterricht. Beispiele aus Estland und Deutschland. In H.F. Marten and M. Saagpakk (eds) *Spot German und Linguistic Landscape an der Schnittstelle von Sprachwissenschaft und Deutschdidaktik* (pp. 43–61). Munich: Iudicium.
Saagpakk, M. (2018) Deutsch(baltisch)e Sprachdenkmäler im öffentlichen Raum als Gegenstand des heutigen DaF-Unterrichts in Estland. In C. Badstübner-Kizik and V. Janíková (eds) *Linguistic Landscape und Fremdsprachendidaktik* (pp. 85–114). Berlin: Peter Lang.

Saagpakk, M. and Frick, A. (2020) Die Erkundung der Linguistic Landscapes im Kontext von Deutsch als Fremdsprache am Beispiel des Projekts DACH in meiner Umgebung. In F.T. Grub and M. Saagpakk (eds) *Brückenschläge Nord: Landeskunde an der Schnittstelle von Schule und Universität* (pp. 135–150). Berlin: Peter Lang.

Saagpakk, M., Kirna, C. and Roomet, M. (2021) Der öffentliche Raum an den Universitäten als Lernumfeld: Zur visuellen Repräsentation der Mehrsprachigkeit an der Universität Tallinn und ihrer Wahrnehmung durch die Studierenden. In E. Ziegler and H.F. Marten (eds) *Linguistic Landscapes im deutschsprachigen Kontext. Forschungsperspektiven, Methoden und Anwendungsmöglichkeiten* (pp. 353–376). Berlin: Peter Lang.

Sabatier, P.A. (1988) An advocacy coalition framework of policy change and the role of policy-oriented learning therein. *Policy Sciences* 21, 129–168 (1988). https://doi.org/10.1007/BF00136406

Sabatier, P.A. and Jenkins-Smith, H.C. (1999) The advocacy coalition framework: An assessment. In P.A. Sabatier (ed.) *Theories of the Policy Process* (pp. 117–166). Chicago, IL: Westview Press.

Sacco, P.L., Ghirardi, S., Tartari, M. and Trimarchi, M. (2019) Two versions of heterotopia: The role of art practices in participative urban renewal processes. *Cities* 89, 199–208.

Sadikhova, F. and Abadi, M. (2000) Where's the Azeri? Trends among store signs in Baku. *Azerbaijan International* 8 (1), 38–39.

Sarkar, M. and Lavoie, C. (2014) Language education and Canada's indigenous peoples. In D. Gorter, V. Zenotz and J. Cenoz (eds) *Minority Languages and Multilingual Education* (pp. 85–103). New York: Springer.

Salo, H. (2012) Using linguistic landscape to examine the visibility of Sámi languages in the North Calotte. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 243–260). Basingstoke: Palgrave Macmillan.

Salvucci, D.D. and Goldberg, J.H. (2000) Identifying fixations and saccades in eye-tracking protocols. In *Proceedings of the 2000 Symposium on Eye Tracking Research & Applications* (pp. 71–78). New York: ACM.

Sanchéz Arias, G.A. (2019) Linguistic landscape of Panama in the early 21st century: An indigenous orthography striving to decolonize. In S.D. Brunn and R. Kehrein (eds) *Handbook of the Changing World Language Map* (pp. 1743–1759). Cham: Springer.

Savela, T. (2018) The advantages and disadvantages of quantitative methods in schoolscape research. *Linguistics and Education* 44, 31–44.

Savski, K. (2021) Language policy and linguistic landscape: Identity and struggle in two southern Thai spaces. *Linguistic Landscape* 7 (2), 128–150. https://doi.org/10.1075/ll.20008.sav

Sayer, P. (2010) Using the linguistic landscape as a pedagogical resource. *ELT Journal* 64 (2), 143–154. https://doi.org/10.1093/elt/ccp051

Sayer, P. (2020) Ethnographic language learning projects through the linguistic landscape. In D. Malinowski, H.H. Maxim and S. Dubreil (eds) *Language Teaching in the Linguistic Landscape* (pp. 327–347). Dordrecht: Springer.

Scarvaglieri, C. and Salem, T.F. (2015) 'Educational Landscaping': Ein Beitrag zur Entwicklung von Bewusstheit über Sprache und Kommunikation. *Zeitschrift für Angewandte Linguistik* 62 (1), 61–97. https://doi.org/10.1515/zfal-2015-0003

Scarvaglieri, C., Redder, A., Pappenhagen, R. and Brehmer, B. (2013) Capturing diversity: Linguistic land- and soundscaping. In J. Duarte and I. Gogolin (eds) *Linguistic Superdiversity in Urban Areas* (pp. 45–74). Hamburg: Benjamins.

Schleicher, A. (2020) The impact of COVID-19 on education insights from education at a glance 2020. See http://hdl.voced.edu.au/10707/550385 (accessed 30 January 2022).

Schlick, M. (2002) The English of shop signs in Europe. *English Today* 18, 3–7.

Schlick, M. (2003) The English of shop signs in Europe. *English Today* 19, 3–17.

Schmitz, U. (2018) Media linguistic landscapes. Alle Linguistik sollte Medienlinguistik sein. *Journal für Medienlinguistik* 1 (1), 1–34. https://doi.org/10.21248/jfml.2018.5

Schulte, M. (2016) Language contact and language politics in Ireland: Linguistic landscapes in South Dublin. *10plus1|Living Linguistics* 2, 118–130. https://10plus1journal.com/?page_id=615

Sciriha, L. and Vassallo, M. (2001) *Malta: A Linguistic Landscape*. Malta: Caxton.

Scollon, R. and Scollon, S.W. (2003) *Discourse in Place: Language in the Material World*. London: Routledge.

Seals, C. (2015) Overcoming erasure: Reappropriation of space in the linguistic landscape of mass-scale protests. In R. Rubdy and S. Ben Said (eds) *Conflict, Exclusion and Dissent in the Linguistic Landscape* (pp. 223–238). Basingstoke: Palgrave Macmillan.

Seals, C.A. (2020) Classroom translanguaging through the linguistic landscape. In D. Malinowski, H.H. Maxim and S. Dubreil (eds) *Language Teaching in the Linguistic Landscape: Mobilizing Pedagogy in Public Space* (pp. 119–143). Dordrecht: Springer.

Sebastián, P. (2019) Signs of resistance in the Asturian linguistic landscape. *Linguistic Landscape* 5 (3), 302–329. https://doi.org/10.1075/ll.18015.seb

Sebba, M. (2010) Discourses in transit. In A. Jaworski and C. Thurlow (eds) *Semiotic Landscapes: Language, Image, Space* (pp. 59–76). London: Continuum.

Sebba, M. (2013) Multilingualism in written discourse: An approach to the analysis of multilingual texts. *International Journal of Bilingualism* 17 (1), 97–118. https://doi.org/10.1177/1367006912438301

Seifi, P. (2015) Eye movements and linguistic landscape. Unpublished master's thesis, University of Groningen.

Seloni, L. and Sarfati, Y. (2017) Linguistic landscape of Gezi Park protests in Turkey: A discourse analysis of graffiti. *Journal of Language and Politics* 16 (6), 782–808. https://doi.org/10.1075/jlp.15037.sel

Shang, G. (2020) Wrestling between English and Pinyin: Language politics and ideologies of coding street names in China. *Journal of Language and Politics* 19 (4), 624–645. https://doi.org/10.1075/jlp.19072.sha

Shang, G. and Guo, L. (2017) Linguistic landscape in Singapore: What shop names reveal about Singapore's multilingualism. *International Journal of Multilingualism* 14 (2), 183–201. https://doi.org/10.1080/14790718.2016.1218497

Shang, G. and Xie, F. (2020) Is 'poor' English in linguistic landscape useful for EFL teaching and learning? Perspectives of EFL teachers in China. *International Journal of Applied Linguistics* 30 (1), 35–49. https://doi.org/10.1111/ijal.12258

Sharafutdinov, I.S. (2018) The role of English in the linguistic landscape of Kazan. *Istoricheskaya etnologiya – Historical Ethnology* 3 (2), 234–251. https://doi.org/10.22378/he.2018-3-2.234-251

Sharma, B.K. (2021) The scarf, language, and other semiotic assemblages in the formation of a new Chinatown. *Applied Linguistics Review* 12 (1), 65–91. https://doi.org/10.1515/applirev-2019-0097.

Sheh, S.J. (2015) Urban palimpsests and contending signs. *Social Semiotics* 25 (2), 209–216. https://doi.org/10.1080/10350330.2015.1010322

Sheng, R. and Buchanan, J. (2022) Traditional visual language: A geographical semiotic analysis of indigenous linguistic landscape of ancient waterfront towns in China. *SAGE Open* 12 (1). https://doi.org/10.1177/21582440211068503.

Shibliyev, J. (2014) Linguistic landscape approach to language visibility in post-Soviet Baku. *Bilig* 71, 205–232.

Shohamy, E. (2006) *Language Policy: Hidden Agendas and New Approaches*. London: Routledge.

Shohamy, E. (2015) LL research as expanding language and language policy. *Linguistic Landscape* 1 (1/2), 152–171.

Shohamy, E. (2019) Linguistic landscape after a decade: An overview of themes, debates and future directions. In M. Pütz and N. Mundt (eds) *Expanding the Linguistic Landscape: Linguistic Diversity, Multimodality and the Use of Space as a Semiotic Resource* (pp. 25–37). Bristol: Multilingual Matters.

Shohamy, E. and Waksman, S. (2009) Linguistic landscape as an ecological arena: Modalities, meanings, negotiations, education. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 313–331). New York: Routledge.

Shohamy, E. and Gorter, D. (2009a) Introduction. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 1–10). New York: Routledge.

Shohamy, E. and Gorter, D. (eds) (2009b) *Linguistic Landscape: Expanding the Scenery*. New York: Routledge.

Shohamy, E. and Abu Ghazaleh-Mahajneh, M.A. (2012) Linguistic landscape as a tool for interpreting language vitality: Arabic as a 'minority' language in Israel. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 89–108). Basingstoke: Palgrave Macmillan.

Shohamy, E. and Ben-Rafael, E. (2015) Introduction: Linguistic Landscape, a new journal. *Linguistic Landscape* 1 (1/2), 1–5.

Shohamy, E. and Pennycook, A. (2022) Language, pedagogy, and active participant engagement: Gaze in the multilingual landscape. In R.J. Blackwood and U. Røyneland (eds) *Spaces of Multilingualism* (pp. 31–47). Abingdon: Routledge.

Shohamy, E., Ben-Rafael, E. and Barni, E. (eds) (2010) *Linguistic Landscape in the City*. Bristol: Multilingual Matters.

Shukla, P. and Singh, S.K. (2018) Linguistic landscaping in India: With special reference to South Mumbai. *Transframe* 3 (4), 13–23.

Shulist, S. (2018) Signs of status: Language policy, revitalization, and visibility in urban Amazonia. *Language Policy* 17, 523–543.

Singh, R. (2018) Signages, posters and notices in Rural India: Trends in linguistic landscaping from Bihar and Himachal Pradesh. *Indian Journal of Applied Linguistics* 44 (1–2), 15–37.

Singh, S.K., Lalhmingmawia and Chimirala, U.M. (2018) Understanding the linguistic landscaping in North East India with reference to three case studies: Aizwal, Shillong, and Thahekhu Village. *International Journal of Applied Linguistics* 44 (1–2), 153–186.

Singh, U.N. (2002) Linguistic landscaping: An overview. In N.H. Itagi and S.K. Singh (eds) *Linguistic Landscaping in India with Particular Reference to the New States* (pp. 7–19). Mysore: Central Institute of Indian Languages.

Siwina, P. and Prasithrathsint, A. (2020) Multilingual landscapes on Thailand's borders. *Journal of Mekong Societies* 16 (1), 112–131.

Sloboda, M. (2009) State ideology and linguistic landscape: A comparative analysis of (post)communist Belarus, Czech Republic and Slovakia. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 173–188). New York: Routledge.

Sloboda, M., Szabó-Gilinger, E., Vigers, D. and Šimičić, L. (2010) Carrying out a language policy change: Advocacy coalitions and the management of linguistic landscape. *Current Issues in Language Planning* 11, 95–113.

Solé Camardons, J. (1998) La llengua de la publicitat exterior a Barcelona. *Llengua i ús: revvista tècnica de política lingüística* 12, 49–53. https://raco.cat/index.php/LlenguaUs/article/view/129541

Solé Camardons, J.S. (1999) La llengua als hipermercats i cadenes de supermercats de Catalunya. *Llengua i ús: revista tècnica de política lingüística* 14, 57–60.

Solé Camardons, J. and Romani, J. (1997) Els usos lingüístics en l'activitat comercial. *Llengua i ús: revista tècnica de política lingüística* 9, 58–61. https://raco.cat/index.php/LlenguaUs/article/view/129421

Soler, J. (2019) The multilingual landscape of higher education in the Baltic States: Exploring language policies and practices in the university space. In S. Lazdiņa and H.F. Marten (eds) *Multilingualism in the Baltic States: Societal Discourses and Contact Phenomena* (pp. 443–477). London: Palgrave Macmillan.

Soler-Carbonell, J. (2016) Complexity perspectives on linguistic landscapes: A scalar analysis. *Linguistic Landscape* 2 (1), 1–25. https://doi.org/10.1075/ll.2.1.01sol

Solmaz, O. and Przymus, S. (eds) (2021) *Linguistic Landscapes in English Language Teaching: A Pedagogical Guidebook*. Dicle University and Texas Christian University. https://doi.org/10.18776/tcu/book/45344

Song, G. (2022) The linguistic landscape of Chinatowns in Canada and the United States: A translational perspective. *Journal of Multilingual and Multicultural Development*. https://doi.org/10.1080/01434632.2022.2102643

Song, Y. (2014) 'Bring your own device (BYOD)' for seamless science inquiry in a primary school. *Computers & Education* 74, 50–60. https://doi.org/10.1016/j.compedu.2014.01.005

Song, Y. (2018) Translingual strategies as consumer design: A case study of multilingual linguistic landscapes of urban China. *Journal of Cross-Cultural and Interlanguage Communication* 37 (5), 455–482. https://doi.org/10.1515/multi-2017-0057

Soukup, B. (2016) English in the linguistic landscape of Vienna, Austria (ELLViA): Outline, rationale, and methodology of a large-scale empirical project on language choice on public signs from the perspective of sign-readers. *VIEWS, Vienna English Working Papers*, vol. 25. http://anglistik.univie.ac.at/views/

Soukup, B. (2020) Survey area selection in variationist linguistic landscape study (VaLLS): A report from Vienna, Austria. *Linguistic Landscape* 6 (1), 52–79. https://doi.org/10.1075/ll.00017.sou

Spitzmüller, J. (2015) Graphic variation and graphic ideologies: A metapragmatic approach, *Social Semiotics* 25 (2), 126–141. https://doi.org/10.1080/10350330.2015.1010323 A2015_054

Spolsky, B. (2004) *Language Policy*. New York: Cambridge University Press.

Spolsky, B. (2009a) Prolegomena to a sociolinguistic theory of public signage. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 25–39). New York: Routledge.

Spolsky, B. (2009b) *Language Management*. New York: Cambridge University Press.

Spolsky, B. (2020) Linguistic landscape: The semiotics of public signage. *Linguistic Landscape* 6 (1), 2–15. https://doi.org/10.1075/ll.00015.spo

Spolsky, B. and Cooper, R.L. (1983) *The Languages of Jerusalem; Arab–Jewish Relation in the Old City*. Ramat-Gan: Bar-Ilan University.

Spolsky, B. and Cooper, R.L. (1991) *The Languages of Jerusalem*. Oxford: Clarendon.

Spolsky, B. and Shohamy, E. (1999) *The Languages of Israel: Policy, Ideology and Practice*. Clevedon: Multilingual Matters.

Sterzuk, A. (2020) Building language teacher awareness of colonial histories and imperialistic oppression through the linguistic landscape. In D. Malinowski, H.H. Maxim and S. Dubreil (eds) *Language Teaching in the Linguistic Landscape* (pp. 145–162). Dordrecht: Springer.

Stjernholm, K. (2015) Two faces of Oslo: A comparative study of the sense of place. In M. Laitinen and A. Zabrodskaja (eds) *Dimensions of Sociolinguistic Landscapes in Europe: Materials and Methodological Solutions* (pp. 77–104). Frankfurt am Main: Peter Lang.

Strandberg, J.A. (2020) 'Nordic cool' and writing system mimicry in global linguistic landscapes. *Lingua* 235, 102783. https://doi.org/10.1016/j.lingua.2019.102783

Strange, L. (2022) Ní Saoirse go Saoirse na mBan: Gender and the Irish language in the linguistic landscape of Ireland's 2018 abortion referendum. *Language in Society* 1–25. https://doi.org/10.1080/01434632.2022.2102643

Straszer, B. and Kroik, D. (2022) Promoting indigenous language rights in Saami educational spaces: Findings from a preschool in southern Saepmie. In E. Krompák, V. Fernández-Mallat and S. Meyer (eds) *Linguistic Landscapes and Educational Spaces* (pp. 127–146). Bristol: Multilingual Matters.

Stroud, C. and Mpendukana, S. (2009) Towards a material ethnography of linguistic landscape: Multilingualism, mobility and space in a South African township. *Journal of Sociolinguistics* 13, 363–386. https://doi.org/10.1111/j.1467-9841.2009.00410.x

Stroud, C. and Mpendukana, S. (2010) Multilingual signage: A multimodal approach to discourses of consumption in a South African township. *Social Semiotics* 20 (5), 469–493. https://doi.org/10.1080/10350330.2010.513174

Stroud, C. and Mpendukana, S. (2012) Material ethnographies of multilingualism: Linguistic landscapes in the township of Khayelitsha. In S. Gardner and M. Martin-Jones (eds) *Multilingualism, Discourse, and Ethnography* (pp. 151–164). New York: Routledge.

Stroud, C. and Jegels, D. (2014) Semiotic landscapes and mobile narrations of place: Performing the local. *International Journal of the Sociology of Language* 228, 179–199. https://doi.org/10.1515/ijsl-2014-0010

Stroud, C., Peck, A. and Williams, Q. (eds) (2019) Special issue: Visceral landscapes. *Sociolinguistic Studies* 13 (1). https://doi.org/10.1558/sols.36224

Sullivan, K.P.H., Waldman, C. and Wiklund, M. (2022) Using participatory linguistic landscapes as pedagogy for democracy: A didactic study in a primary school classroom. In E. Krompák, V. Fernández-Mallat and S. Meyer (eds) *Linguistic Landscapes and Educational Spaces* (pp. 193–213). Bristol: Multilingual Matters.

Sumarlam, S., Purnanto, D. and Ardhian, D. (2020a) How does language play a role to create symbols? Linguistic landscape on health facilities in Malang City, Indonesia. *Journal of Talent Development and Excellence* 12 (2), 2450–2466.

Sumarlam, S., Purnanto, D. and Ardhian, D. (2020b) Linguistic landscape of food stall and restaurant names: A supply chain management of halal food in Malang City, Indonesia. *International Journal of Supply Chain Management* 9 (2), 700–705

Sutherland, P. (2015) Writing system mimicry in the linguistic landscape. *SOAS Working Papers in Linguistics* 17, 147–167.

Svennevig, J. (2021) How to do things with signs. The formulation of directives on signs in public spaces. *Journal of Pragmatics* 175, 165–183.

Syrjälä, V. (2022) Linguistic landscapes in the Stockholm Archipelago: Producing and reflecting a sense of place. *Languages* 7 (1), 37. https://doi.org/10.3390/languages7010037

Szabó, T.P. (2015) The management of diversity in schoolscapes: An analysis of Hungarian practices. *Apples: Journal of Applied Language Studies* 9 (1), 23–51. https://doi.org/10.17011/apples/2015090102

Szabó, T.P. and Troyer, R.A. (2017) Inclusive ethnographies: Beyond the binaries of observer and observed in linguistic landscape studies. *Linguistic Landscape* 3 (3), 306–326. https://doi.org/10.1075/ll.17008.sza

Szabó-Gilinger, E., Sloboda, M., Šimičić, L. and Vigers, D. (2012) Discourse coalitions for and against minority languages on signs: Linguistic landscape as a social issue. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 263–280). Basingstoke: Palgrave Macmillan.

Tan, P. (2014) Singapore's balancing act, from the perspective of the linguistic landscape. *SOJOURN: Journal of Social Issues in Southeast Asia* 29 (2), 438–466. https://doi.org/10.1355/sj29-2g

Tan, P.K.W. (2011) Subversive engineering: Building names in Singapore. In S. Brunn (ed.) *Engineering Earth* (pp. 1997–2011). Dordrecht: Springer.

Tang, H.K. (2020) Linguistic landscaping in Singapore: Multilingualism or the dominance of English and its dual identity in the local linguistic ecology? *International Journal of Multilingualism* 17 (2), 152–173. https://doi.org/10.1080/14790718.2018.1467422

Taylor-Leech, K.J. (2012) Language choice as an index of identity: Linguistic landscape in Dili, Timor-Leste. *International Journal of Multilingualism* 9 (1), 15–34.

The Guardian (2022) 'We need the truth': The campaign to 'de-Russify' Odesa. 4 June. See https://www.theguardian.com/world/2022/jun/04/ukraine-campaign-de-russify-odesa (accessed 5 June 2022).

The Moscow Times (2022) Separatists take down Ukrainian road signs in Mariupol. 11 May. See https://www.themoscowtimes.com/2022/05/06/separatists-take-down-ukrainian-road-signs-in-mariupol-a77604 (accessed 15 May 2022).

Themistocleous, C. (2019) Conflict and unification in the multilingual landscape of a divided city: The case of Nicosia's border. *Journal of Multilingual and Multicultural Development* 40 (2), 94–114. https://doi.org/10.1080/01434632.2018.1467425

Themistocleous, C. (2020) Multilingual voices of unification in 'No man's land': Evidence from the linguistic landscape of Nicosia's UN-controlled buffer zone. *Linguistic Landscape* 6 (2), 155–182. https://doi.org/10.1075/ll.19030.the

Thistlethwaite, J. and Sebba, M. (2015) The passive exclusion of Irish in the linguistic landscape: A nexus analysis. In R. Rubdy and S. Ben Said (eds) *Conflict, Exclusion and Dissent in the Linguistic Landscape* (pp. 27–51). Basingstoke: Palgrave Macmillan.

Thurlow, C. (2021) When globalese meets localese: Transformational tactics in the typographic landscape: A Bernese case study. *Social Semiotics* 31 (1), 88–107.

Thurlow, C. (2022) Liquid power: Reading the infinity pool as a global semioscape. *Visual Communication* 21 (1), 123–145.

Thurlow, C. and Aiello, G. (2007) National pride, global capital: A social semiotic analysis of transnational visual branding in the airline industry. *Visual Communication* 6 (3), 305–344.

Thurlow, C. and Jaworski, A. (2017) The discursive production and maintenance of class privilege: Permeable geographies, slippery rhetorics. *Discourse & Society* 28 (5), 535–558. https://doi.org//10.1177/0957926517713778

Thurlow, C. and Gonçalves, K. (2019) Introduction: X-SCAPES: New horizons in linguistic landscapes. *Linguistic Landscape* 5 (2), 111–114. https://doi.org/10.1075/ll.00011.thu

Tieken-Boon van Ostade, I.T.-B., Geuke, S. and Oechies, L. (2020) How Chinese is The Hague's Chinatown? *Journal of Multilingual and Multicultural Development* 44 (2), 109–128. https://doi.org/10.1080/01434632.2020.1801696.

Tracy, S. (2010) Qualitative quality: Eight 'Big-Tent' criteria for excellent qualitative research. *Qualitative Inquiry* 16 (10), 837–851. https://doi.org/10.1177/1077800410383121

Tran, T.T. (2021) Pho as the embodiment of Vietnamese national identity in the linguistic landscape of a western Canadian city. *International Journal of Multilingualism* 18 (1), 73–89. https://doi.org/10.1080/14790718.2019.1604713

Trinch, S.L. and Snajdr, E. (2017) What the signs say: Gentrification and the disappearance of capitalism without distinction in Brooklyn. *Journal of Sociolinguistics* 21 (1), 64–89. https://doi.org/10.1111/josl.12212

Trinch, S.L. and Snajdr, E. (2018) Mothering Brooklyn: Signs, sexuality, and gentrification under cover. *Linguistic Landscape* 4 (3), 214–237. https://doi.org/10.1075/ll.18012.tri

Trinch, S. and Snajdr, E. (2020) *What the Signs Say: Language, Gentrification, and Place-Making in Brooklyn*. Nashville, TN: Vanderbilt University Press.

Troyer, R.A. (2012) English in the Thai linguistic netscape. *World Englishes* 31 (1), 93–112. https://doi.org/10.1111/j.1467-971X.2011.01742.x

Troyer, R.A. (2014) Historical and emerging trends in linguistic landscape studies. Poster presented at the Annual Conference of the American Association of Applied Linguistics (AAAL), Portland, 22–25 March.

Troyer, R.A. (2016) Book review: Robert Blackwood, Elizabeth Lanza and Hirut Woldemariam (Eds.), Negotiating and contesting identities in linguistic landscapes. *Manusya, Journal of Humanities* 22, 88–93.

Troyer, R.A. (2021) Linguistic landscape corpus. CQPweb at Lancaster. See https://cqpweb.lancs.ac.uk/llscape202107/ (accessed 15 May 2022).

Troyer, R.A. (2022) *Linguistic Landscape Bibliography*. See https://www.zotero.org/groups/linguistic_landscape_bibliography (accessed 15 September 2022).

Troyer, R.A. and Szabó, T.P. (2017) Representation and videography in linguistic landscape studies. *Linguistic Landscape* 3 (1), 56–77. https://doi.org/10.1075/ll.3.1.03tro

Troyer, R.A., Cáceda, C. and Giménez Eguibar, P. (2015) Unseen Spanish in small-town America: A minority language in the linguistic landscape. In R. Rubdy and S. Ben Said (eds) *Conflict, Exclusion and Dissent in the Linguistic Landscape* (pp. 52–76). Basingstoke: Palgrave Macmillan.

Trudgill, P. and Hannah, J. (2017) *International English. A Guide to Varieties of English Around the World*. Abingdon: Routledge.

Trumper-Hecht, N. (2009) Constructing national identity in mixed cities in Israel: Arabic on signs in the public space of upper Nazareth. In E. Shohamy and D. Gorter (eds) *Linguistic Landscape: Expanding the Scenery* (pp. 238–252). New York: Routledge.

Trumper-Hecht, N. (2010) Linguistic landscape in mixed cities in Israel from the perspective of 'walkers': The case of Arabic. In E. Shohamy, E. Ben-Rafael and M. Barni (eds) *Linguistic Landscape in the City* (pp. 235–251). Bristol: Multilingual Matters.

Tsiplakou, S. (2023) Conflictual translanguaging in the linguistic landscape of a divided city. *Journal of Language Aggression and Conflict*. https://doi.org/10.1075/jlac.00081.tsi

Tufi, S. (2016) Constructing the self in contested spaces: The case of Slovenian-speaking minorities in the area of Trieste. In R. Blackwood, E. Lanza and M. Woldemariam (eds) *Negotiating and Contesting Identities in Linguistic Landscapes* (pp. 101–116). London: Bloomsbury.

Tufi, S. (2017) Liminality, heterotopic sites, and the linguistic landscape: The case of Venice. *Linguistic Landscape* 3 (1), 78–99. https://doi.org/10.1075/ll.3.1.04tuf

Tufi, S. (2022) Situated spatialities and the linguistic landscape: A diachronic account of an emblematic square in Naples. *Social Semiotics* 32 (2), 240–261.

Tufi, S. and Blackwood, R.J. (2010) Trademarks in the linguistic landscape: Methodological and theoretical challenges in qualifying brand names in the public space. *International Journal of Multilingualism* 7 (3), 197–210. https://doi.org/10.1080/14790710903568417

Tulp, S.M. (1978) Reklame en tweetaligheid: Een onderzoek naar de geographische verspreiding van franstalige en nederlandstalige affiches in Brussel. *Taal en Sociale Integratie* 1, 261–288.

Tussupbekova, M.Zh. and Enders, P. (2016) Linguistic landscape in Kazakhstan: Public signs in Astana. *International Education & Research Journal* 2 (2), 18–20. https://doi.org/10.21276/2454-9916

Valijärvi, R.L. and Kahn, L. (2020) The linguistic landscape of Nuuk, Greenland. *Linguistic Landscape* 6 (3), 265–296. https://doi.org/10.1075/ll.19010.val +minority

Van der Worp, K., Gorter, D. and Cenoz, J. (2018) Multilingual professionals in internationally operating companies in the bilingual Basque Autonomous Community: Tensions in their linguistic repertoire? *Multilingua* 37 (4), 353–375. https://doi.org/10.1515/multi-2017-0074

Van Mensel, L. and Darquennes, J. (2012) All is quiet on the Eastern front? Language contact along the French-German language border in Belgium. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 164–180). Basingstoke: Palgrave Macmillan.

Van Mensel, L., Marten, H.F. and Gorter, D. (2012) Minority languages through the lens of the linguistic landscape. In D. Gorter, H.F. Marten and L. Van Mensel (eds) *Minority Languages in the Linguistic Landscape* (pp. 319–323). Basingstoke: Palgrave MacMillan

Van Mensel, L., Vandenbroucke, M. and Blackwood, R. (2016) Linguistic landscapes. In O. García, N. Flores and M. Spotti (eds) *Oxford Handbook of Language and Society* (pp. 423–449). New York: Oxford University Press.

Vandenbroucke, M. (2015) Language visibility, functionality and meaning across various TimeSpace scales in Brussels' multilingual landscapes. *Journal of Multilingual and Multicultural Development* 36 (2), 163–181.

Vandenbroucke, M. (2016) Socio-economic stratification of English in globalized landscapes: A market oriented perspective. *Journal of Sociolinguistics* 20 (1), 86–108.

Vandenbroucke, M. (2018) Multilingualism, urban change and gentrification in the landscape of a Brussels neighbourhood. *Multilingua* 37 (1), 25–52. https://doi.org/10.1515/multi-2015-0103

Vandenbroucke, M. (2019a) Top-down policy in Flemish linguistic landscapes: The case of 'Frituur Grand Place'. In M. Castillo Lluch, R. Kailuweit and C.D. Pusch (eds) *Linguistic Landscape Studies: The French Connection* (pp. 247–266). Freiburg: Rombach Verlag.

Vandenbroucke, M. (2019b) Mapping visible multilingualism in Brussels' linguistic landscapes. In S. Brunn and R. Kehrein (eds) *Handbook of the Changing World Language Map*. Cham: Springer. https://doi.org/10.1007/978-3-319-73400-2_98-1

Vandenbroucke, M. (2022) Institutional educationscapes for new speakers in Flanders: Language learning campaigns and linguistic integration. In E. Krompák, V. Fernández-Mallat and S. Meyer (eds) *Linguistic Landscapes and Educational Spaces* (pp. 173–192). Bristol: Multilingual Matters.

Verdoodt, A. (1979) *La protection des droits de l´homme dans les états plurilingues*. Paris: Fernand Nattan.

Vertovec, S. (2007) Super-diversity and its implications. *Ethnic and Racial Studies* 30 (6), 1024–1054.

Vettorel, P. (2013) English in Italian advertising. *World Englishes* 32 (2), 261–278. https://doi.org/10.1111/weng.12023

Vigers, D. (2013) Signs of absence: Language and memory in the linguistic landscape of Brittany. *International Journal of the Sociology of Language* 2013 (223), 171–187. https://doi.org/10.1515/ijsl-2013-0051

Vihalemm, T. (1999) Group identity formation processes among Russian-speaking settlers of Estonia: A linguistic perspective. *Journal of Baltic Studies* 30 (1), 18–39.

Vila i Moreno, F.X. (2008) Catalan in Spain. In G. Extra and D. Gorter (eds) *Multilingual Europe: Facts and Policies* (pp. 157–183). Berlin: De Gruyter Mouton.

Vingron, N., Gullifer, J.W., Hamill, J., Leimgruber, J. and Titone, D. (2017) Using eye tracking to investigate what bilinguals notice about linguistic landscape images: A preliminary study. *Linguistic Landscape* 3 (3), 226–245. https://doi.org/10.1075/ll.17014.vin

Voegelin, C.F. (1933) Language and languages: An introduction to linguistics. Willem L. Graff. *American Anthropologist* 35, 356–358. https://doi.org/10.1525/aa.1933.35.2.02a00130

Wachendorff, I., Ziegler, E. and Schmitz, U. (2017) Graffitiscape im Ruhrgebiet. In L. Lieb, S. Muller and D. Tophinke (eds) *Graffiti: Deutschsprachige Auf- und Inschriften in sprach- und literaturwissenschaftlicher Perspektive* (pp. 154–208). Vienna: Praesens Verlag.

Waksman, S. and Shohamy, E. (2016) Linguistic landscape of social protests: Moving from 'open' to 'institutional' spaces. In R.J. Blackwood, E. Lanza and H. Woldemariam (eds) *Negotiating and Contesting Identities in Linguistic Landscapes* (pp. 85–98). London: Bloomsbury.

Waksman, S. and Shohamy, E. (2020) Exploring the mediation styles of LL sites by tourist guides. In D. Malinowski and S. Tufi (eds) *Reterritorializing Linguistic Landscapes: Questioning Boundaries and Opening Spaces* (pp. 199–214). London: Bloomsbury.

Wang, J. (2013) Linguistic landscape of China: A case study of shop signs in Beijing. *Studies in Literature and Language* 6 (1), 40–47. https://doi.org/10.3968%2Fj.sll.1923156320130601.1449

Wang, J. and Huang, X. (2020) English in the language ecology of a community of indigenous Derung people in Northwest Yunnan. *World Englishes* 39 (1), 171–182.

Wang, X. and Van de Velde, H. (2015).Constructing identities through multilingualism and multiscriptualism: The linguistic landscape in Dutch and Belgian Chinatowns. *Journal of Chinese Overseas* 11 (2), 119–145.

Wang, X. and Xu, D. (2018) The mismatches between minority language practices and national language policy in Malaysia: A linguistic landscape approach. *Kajian Malaysia: Journal of Malaysian Studies* 36 (1), 105–125. https://doi.org/10.21315/km2018.36.1.5

Wedel, M. and Pieters, R. (2008) A review of eye-tracking research in marketing. *Review of Marketing Research* 4, 123–147. https://doi.org/10.1108/S1548-6435(2008)0000004009

Weinreich, U. (1953) *Languages in Contact: Findings and Problems*. New York: Linguistic Circle of New York.

Weinreich, U. (2011) [1951]. *Languages in Contact: French, German and Romansh in Twentieth-Century Switzerland*. Amsterdam: Benjamins.

Wenzel, V. (1998) Reclame en tweetaligheid in Brussel . Een empirisch onderzoek naar de spreiding van Nederlandstalige en en Franstalige affiches. In P. Van de Craen (ed.) *Mondig Brussel* (pp. 45–73). Brussels: Brio. https://www.briobrussel.be/assets/brusselse themas/brusselt3reclame.pdf

Werklund University (2021) Shifting Linguistic Landscapes (A New Terrain for Multilingual and Transcultural Pedagogies). Calgary, 26 April. See https://werklund.ucalgary.ca/shifting-linguistic-landscapes (accessed 15 September 2022).

Weyers, J.R. (2015) English shop names in the retail landscape of Medellin, Colombia. *English Today* 126 (32), 2, 8–14.

Willemyns, R. (2002) The Dutch–French language border in Belgium. *Journal of Multilingual and Multicultural Development* 23 (1–2), 36–49. https://doi.org/10.1080/01434630208666453

Williams, Q.E. and Lanza, E. (2016) The visualisation of multilingualism and voice in spaces of consumption: Linguistic landscaping in a South African urban space. In R.J. Blackwood, E. Lanza and H. Woldemariam (eds) *Negotiating and Contesting Identities in Linguistic Landscapes* (pp. 233–249). London: Bloomsbury.

Wilson, T.M. and Donnan, H. (eds) (2012) *A Companion to Border Studies*. Oxford: Wiley Blackwell.

Winke, P.M., Godfroid, A. and Gass, S.M. (2013) Introduction to the special issue: Eye-movement recordings in second language research. *Studies in Second Language Acquisition* 35 (2), 205–212.

Witte, E. (1989) *Taal en Social Integratie reeks*, Nos. 1–13 online. See https://www.librarything.nl/nseries/185312/Taal-en-Sociale-Integratie (accessed 15 January 2021).

Woldemariam, H. and Lanza, E. (2012) Religious wars in the linguistic landscape of an African capital. In C. Hélot, M. Barni, R. Janssens and C. Bagna (eds) *Linguistic Landscapes, Multilingualism and Social Change* (pp. 169–184). Berlin: Peter Lang.

Woldemariam, H. and Lanza, E. (2014) Language contact, agency and power in the linguistic landscape of two regional capitals of Ethiopia. *International Journal of the Sociology of Language* 228, 79–103. https://doi.org/10.1515/ijsl-2014-0006

Woldemariam, H. and Lanza, E. (2015) Imagined community: The linguistic landscape in a diaspora. *Linguistic Landscape* 1 (1/2), 172–190. https://doi.org/10.1075/ll.1.1-2.10wol

Wolff, H.E., Berhanu, S. and Fulea, G. (2013) On visibility and legitimisation of languages: The 'linguistic landscape' in Adaama, Ethiopia. *Aethiopica* 16, 149–191. https://doi.org/10.15460/aethiopica.16.1.704

Wong, A. and Chan, S. (2018) From 'the world of Suzie Wong' to 'Asia's world city': Tracing the development of bilingualism in Hong Kong's linguistic landscape (1957–2014). *International Journal of Multilingualism* 15 (4), 435–454. https://doi.org/10.1080/14790718.2017.1418364

Woo, W.S. and Riget, P.N. (2022) Linguistic landscape in Kuala Lumpur international airport, Malaysia. *Journal of Multilingual and Multicultural Development* 43 (5), 404–423. https://doi.org/10.1080/01434632.2020.1742724

Wroblewski, M. (2020) Inscribing indigeneity: Ethnolinguistic authority in the linguistic landscape of Amazonian Ecuador. *Multilingua* 39 (2), 139–168. https://doi.org/10.1515/multi-2018-0127

Wu, H. and Techasan, S. (2016) Chinatown in Bangkok: The multilingual landscape. *Manusya: Journal of Humanities* 19 (3), 38–52. https://doi.org/10.1163/26659077-01903004

Wu, H., Techsan, S. and Huebner, T. (2020) A new Chinatown? Authenticity and conflicting discourses on Pracha Rat Bamphen Road. *Journal of Multilingual and Multicultural Development* 41 (9), 794–812. https://doi.org/10.1080/01434632.2020.1746318

Xiao, R. and Lee, C. (2019) English in the linguistic landscape of the Palace museum: A field-based sociolinguistic approach. *Social Semiotics* 0 (0), 1–20. https://doi.org/10.1080/10350330.2019.1697542

Xie, Y. and Buckingham, L. (2021) The linguistic landscape and materials development. *Linguistic Landscape* 7 (3), 285–313. https://doi.org/10.1075/ll.20016.buc

Xu, S.Z. and Wang, W. (2021) Change and continuity in Hurstville's Chinese restaurants: An ethnographic linguistic landscape study in Sydney. *Linguistic Landscape* 7 (2), 175–202. https://doi.org/10.1075/ll.20007.xu

Yajun, J. (2003) English as a Chinese language. *English Today* 19 (2), 3–8. https://doi.org/10.1017/S0266078403002013

Yan, L. and Lee, M.Y. (2014) Tourist perceptions of the multi-linguistic landscape in Macau. *Journal of China Tourism Research* 10 (4), 432–447. https://doi.org/10.1080/19388160.2014.953658

Yan, X. (2019) A study of language choices in the linguistic landscape of Macao's heritage and gaming tourism. *Journal of Multilingual and Multicultural Development* 40 (3), 198–217. https://doi.org/10.1080/01434632.2018.1498853

Yanguas, I. (2009) The linguistic landscape of two Hispanic neighborhoods in Washington DC. *Revista Electrónica de Lingüística Aplicada* (8), 30–44.

Yao, J., Yan, X. and Liu, S. (2020) Linguistic landscape in Liangshan Yi autonomous prefecture: The case of an ethnic minority region in China. *International Journal of Multilingualism* 120. https://doi.org/10.1080/14790718.2020.1800018

Yao, X. (2021) Metrolingualism in online linguistic landscapes. *International Journal of Multilingualism*. https://doi.org/10.1080/14790718.2021.1887197

Yao, X. and Gruba, P. (2020) A layered investigation of Chinese in the linguistic landscape: A case study of Box Hill, Melbourne. *Australian Review of Applied Linguistics* 43 (3), 302–336.

Yendra, Y., Artawa, K., Suparwa, N.I. and Satyawati, M.S. (2020) Symbolic functions of graffiti in Padang city of Indonesia: Critical linguistic landscape studies. *Jurnal Arbitrer* 7 (1), 100–108. https://doi.org/10.25077/ar.7.1.100-108.2020

Ying, Z. (2019) Beliefs of EFL learners towards pedagogical values of linguistic landscape in China: A case study carried out in three schools. *Journal of Education, Society and Behavioural Science* 31 (3), 1–11. https://doi.org/10.9734/jesbs/2019/v31i330152

Yochim, A. (2020) The changing landscape of unofficial signage in a US refugee relocation city. *Linguistic Landscape* 6 (3), 237–264.

Yusra, K., Lestari, Y.B. and Juwaeriah, Y. (2022) Commodification of English and English-like structures in shop names in Lombok Island, Indonesia. *Multilingua*. https://doi.org/10.1515/multi-2021-0151

Zabrodskaja, A. (2010) Book review: Elana Shohamy and Durk Gorter (Eds.), linguistic landscape: Expanding the scenery. *International Journal of Bilingualism* 14 (2), 271–274.

Zabrodskaja, A. (2014) Tallinn: Monolingual from above and multilingual from below. *International Journal of the Sociology of Language* 228, 105–130. https://doi.org/10.1515/ijsl-2014-0007

Zabrodskaja, A. and Milani, T.M. (2014) Signs in context: Multilingual and multimodal texts in semiotic space. *International Journal of the Sociology of Language* 228, 1–6. https://doi.org/10.1515/ijsl-2014-0002

Zahra, S.T., Setia, E. and Zein, T. (2021) Linguistic landscape on coffee shop signboards in Medan. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)* 4 (3), 5445–5457. https://doi.org/10.33258/birci.v4i3.2335

Zhang, H. (2016) Plurilingual posters in a multilingual city: Reader positioning and power negotiation. *Language and Intercultural Communication* 16 (4), 588–609. https://doi.org/10.1080/14708477.2016.1192184

Zhang, H. and Chan, B.H.S. (2015) Translanguaging in multimodal Macao posters: Flexible versus separate multilingualism. *International Journal of Bilingualism* 21 (1), 34–56. https://doi.org/10.1177/1367006915594691

Zhang, H. and Chan, B.H.S. (2017) The shaping of a multilingual landscape by shop names: Tradition versus modernity. *Language and Intercultural Communication* 17 (1), 26–44. https://doi.org/10.1080/14708477.2017.1261674

Zhang, H., Tupas, R. and Norhaida, A. (2020) English-dominated Chinatown: A quantitative investigation of the linguistic landscape of Chinatown in Singapore. *Journal of Asian Pacific Communication* 30 (1–2), 273–289.

Zhang, H., Seilhamer, M.F. and Cheung, Y.L. (2021) When the evening lights are lit: Exploring the linguistic landscape of Singapore's Chinatown at night. *Journal of Multilingual and Multicultural Development* 1–19. https://doi.org/10.1080/01434632.2021.1950165

Zhang, J. (2021) *Language Policy and Planning for the Modern Olympic Games*. New York: De Gruyter Mouton.

Zhao, F. (2021) Linguistic landscapes as discursive frame: Chinatown in Paris in the eyes of new Chinese migrants. *Linguistic Landscape* 7 (2), 235–257.

Ziegler, E. and Marten, H.F. (eds) (2021) *Linguistic Landscapes im deutschsprachigen Kontext. Forschungsperspektiven, Methoden und Anwendungsmöglichkeiten*. Berlin: Peter Lang.

Ziegler, E., Eickmans, H., Schmitz, U., Uslucan, H.-H., Gehne, D., Kurtenbach, S., Mühlan-Meyer, T. and Wachendorff, I. (2018) *Metropolenzeichen: Atlas zur visuellen Mehrsprachigkeit der Metropole Ruhr*. Duisburg: Universitätsverlag Rhein Ruhr.

Ziegler, E., Schmitz, U. and Uslucan, H.H. (2019) Attitudes towards visual multilingualism in the linguistic landscape of the Ruhr Area. In M. Pütz and N. Mundt (eds) *Expanding the Linguistic Landscape: Linguistic Diversity, Multimodality and the Use of Space as a Semiotic Resource* (pp. 264–299). Bristol: Multilingual Matters.

Ziegler, E., Schmitz, U. and Uslucan, H.-H. (2020) Community ma(r)king in the linguistic landscape of the Ruhr Metropolis. *Linguistic Landscape* 6 (2), 183–212. https://doi.org/10.1075/ll.19031.zie

Index

Note: t= in caption of table (bold); f= in caption of figure (italics)

advertisement(s), 84, **95t**, 220, *232f*, 247, 285, 291, 347, 383, 395
advertising 8-9, 12, 41, 168, 287, 294, 306, 313
  advertising agencies, 32, 53, 395
  advertising campaigns, 265, 392
affect, 283
Afrikaans, 220, 247, 282-283, 340, 367
agency, 56, 95-96, 106
Amharic, 73, 190-191, 197, 246, 288-289
Arabic, 29-30, 44, 68, 144, 163, **185t**, 191-193, 248, *249f*, 303, 307, 331, 352-353, 361
Arabicized English, 167
architecture, 14-15, 212-213, 392
artifact(s), 133, 144, 160, 198, 337, **351t**
artificial intelligence, 389-390
atmospheric signs, 167-168, 258
authenticity, 214-215, 219-222, 332, 373
authentic input, 25, 72, 312-313, 316
authorship, 84-85, **95t**, 106, 395

Backhaus, P., 4, 9, 12, 22, 37-40, 44-45, 54, 72, 74, 104, 114, 118, 128-129, 232
Bahasa Malaysia. *See* Malay
Ben-Rafael, E., 6-7, 43, 60-61, 93, 110-111, 115, 119, 233-234, 359-360
Bhojpuri, **185t**, 202, 204-205
big commercial names, 61, 111, 275, 359, 393
billboard(s), 73, 155, 165, 186, *267f*, 269, 281, 284-287, 301, 395
Blackwood, R., 3, 46, 73, 76,110, 112-113, 120, 125, 134, 230, 245, 295, 358-359
Blommaert, J., 9, 42, 67, 77, 104, 106-107, 122, 128, 129, 253, 370
border(s), 185, 198, 374, 377-380
Bourdieu, P., 60-61
Bourhis, R., 3-5, 34-35, 54, 58-60, 204, 364
Breton, **185t**, 200, 323
bring your own device (BYOD), 335, 355, 389

Calvet, J.L., 6, 30, 51, 105, 127
Catalan, 36-38, 97, **185t**, 187-190, 249
Chinatown(s), 67, 69, 79, 123-124, 147, 163, 205-215, **216t**, 271-272, 320
Chinese, 98, 105, 123, 191, 205-215, **216t**, 218, 269-280, 299-301, 306, 320, 363, 379
cityscape(s), 20, 274
  cityscape(s), multilingual, 6, 20, 370, 389
coding scheme(s), 93-94, **95t**, 96, 100
color(s), 65, 138, 182, 212, 217, 316
commodification, 79, 203, 214, 218-221, 282, 386
community signs, 167-168, 258
conflict(s), 69, 227, 229, 231, 235, 366, 379
contact linguistics, 72-73
contestation, 182, 227, 236, 250
Corsican, 200, 245

cosmopolitanism, 167, 170, 291, 295, 361
COVID-19, 1, *2f*, 71, 254, 285, 330, 350, **351t**, 387, 389
creativity, 165, 287, 387
cultural geography, 20, 79-80
cultural artifact(s). *See* artifact(s)

Danish, 167, 191
data collection, 50, 90-91, 101-103, 129, 139-140, 357, 388
De Swaan, A., 256, 267, 274, 308
digital camera(s), 55, 129, 355, 388-389
digital screens, *49f*, 86, 116, 141-142, 396
Dingle naming debate, 63, 195, 364
distinction-making signs, 167-168, 382
Donostia-San Sebastián, *13f*, 14, 45, *101f*, *119f*, 125, 170-172, 224, 237-238, *239f*, 304, 364, *365f*
Dutch, 18, 31-32, 196, *209f*, **216t**, 233-*234f*

ELLA. *See* ethnographic linguistic landscape approach
emblematic use, 221, 308
English today journal, 8, 54, 292
enregisterment, 73-74
erasure, 228, 234, 242, 246-247, 284
establishment(s), 34, 115, 208, 215, **216t**, 236, 238, 360
Estonian, 242, 297, 336, 339, 378
ethnographic linguistic landscape approach (ELLA), 42, 67, 77, 106-107, 128
ethnolinguistic vitality, 34-35, 54, 58-60, 204, 288
expanding circle countries, 255, 291-293, 297, 305-308
eye tracking, 87, 148-151, 196

Finnish, 167, 179, 338, 378
flag(s), 217, 219, 290, 336, 346
font(s), 195, 248, 257, *263f*, 269, 352, 364
font size, 150, 182, 244, 269, 300, 352
foodscape(s), 21, 67, 387
Foucault, M., 69-70, 215
frame analysis, 62-64
Francophone(s), 33-34, 231
French, 31-34, *35f*, 73, 150, 162-163,182, 187, 190, 208, **216t**, 230-235, 265, 287-288, 295, 303, 306, 362, 374-376
Frisian, 45, 150, **185t**, 196, *197f*

Galician, **185t**, 187, 193-195, 366
Gedeo, **185t**, 197, 289
gender and sexuality, 382-384
gentrification, 79, 99, 122, 260, 380-382
geopolitical location, 66
georeferencing, 94, **95t**, 100, 145-146
geosemiotics, 42, 51, 54, 65-68, 160, 206-207
German, 123, 169, **185t**, 186, 201, 293-294, 321-322, 341, 377
Spot German, 123, 321
Gestalt, 61, 117, 124
global semioscape, 391-392
globalization, 20-21, 61, 67, 218, 234, 253-254, 308, 359-360, 391-392
glocalization, 253-254, 360
Goffman, E., 60, 62-63, 65
Google Street View, 120, *125f*, 126, 330, 388
graffiti, 75, 97, 169, 265-266, **351t**, 383-385
Greek, 166, 360, *361f*, 379

Hebrew, 28-31, 44, 192-193, 217-218, 331, *332f*, 361
heterotopia, 69-70, 215
hierarchy of languages. *See* language hierarchy
Hindi, 264-267
hypercentral language, 256, 267, 292, 308

ideology(ies), 63, 73, 176, **183t**, **185t**, 193, 230, 245-246, 259, 261, 331, 338
ideology, language. *See* language ideology(ies)
ideology, monolingual 154, 165, 366
indexicality, 66, **95t**
Indonesian, 248, 301-302
informational function(s), 59, 208, 292, **343t**, 374
inner circle countries, 255-257, 263, 268, 281, 292

interview(s), walking 142-145, 340
Inuit languages, **185t**, 200-201
Irish, 63-64, 163, **185t**, 194-195, 257, 262-263, 364
Islander Creole, **185t**, 202
Italian, *199f*, **216t**, 245-246, 286-287, 295, 304, 320, 363-364

Japanese, 12, 39-40, 44-45, 383
Jaworski, A., 14-16, 19-20, 52, 64, 67, 74, 158, 167, 220, 386

Kachru model, 255-256, 291, 308
Kichwa, **185t**, 201-205
Kinyarwanda, 287-288
Kiswahili, 281, 284-287
knowledge about language, 21, 322-324
Korean, 45, 65, 105, 141, 211, 216t, 218, 318-319, 338, 340

Landry, R., 2-5, 34-35, 54, 59, 93, 204, 343, 364, 374
language choice(s), 30, 96, 105, 121, 228, 231, 239
language conflict, 27, 31-32, 185-186, 233
language hierarchy, 182, 256, 280, 292-293, 303, 324, 376
language ideology(ies), 183, 190, 204, 222-223, 227-228, 244-246, 337, 339, 350, 382
language management, 31, 56, 227, 238
language(s) other than English, 35, 142, 167
language practices, 31, 87-88, 227, 229, 247-248, 363
Latgalian, 178, **185t**, 203-205
Latin, 12, 375-376
Latin script. *See* Roman script
Latvian, 178, 203, 242, 351
layering, 74, 103, 161, 379
Lefebvre, H., 68-69, 312, 319
Lennon Walls, 277
Lingscape, 103, 147
LinguaSnapp, 102-103, 126, 143, 147
linguistic diversity, 12, 41, **78t**, 97, 102, 119, 324-325, 331
linguistic fetish, 219, 362
linguistic imperialism, 268, 273-274, 280

Linguistic Landscape journal, 7, 10, 52, 371, 373, 387
literacy, 56, 290, 316, 353
literacy approach, 17, 30
Low German, 111-112, 305

Magahi, **185t**, 202
Malay, 210, 247, 268-274
Mandarin, 191, 320
Māori, **185t**, 203-204, 220, 257, 263
MapGeoLing, 94, 145
market(s), 201, 261-262, 266, 277, 282, 342, 363, 378
marketing, 149, 200, 219-220, 383, 391
Marshallese, **185t**, 195
materiality, **95t**, 159-160, *161f*
MIPS model. *See* multilingual inequality in public spaces
mixed methods, 92, 109-113
mobility, 33, 67, 121, 176
multilingual inequality in public spaces, 80-88, *81f*, 394-395
multimodal, 69, 91, 159-160, 382, 385, 391
  multimodal aspects, 91, 134, 168, 217, 219, 290, 323, 391
  multimodal texts, 159, 316
multimodality, 15, 49, **95t**, 159-160, *161f*, 316, 328,
museum(s), 123, 182, 234, 284, 299-300

neighborhood(s), 11, 42, 77, 105-106, *107f*, 121-124, 205, 217-218, 238, *239f*, 380-381
Norwegian, 273, 296, 338-339

Occitan, 162, 182
old school vernacular signs, 167-168, 382
onomastics, 357, 368, 376
Oromo, 73, 288-289
outer circle countries, 255, 264, 292, 308

pandemic, coronavirus. *See* COVID-19
pedagogical tool, 317, 322, 334, 354-355
Pennycook, A., 16, 21, 157-159, 255, 384
Phillipson, R., 255-256, 268, 273-274, 280
photographer-researcher, 130-134, *136f*

photography, 129, 134, 138, 140
PhotoVoice, 318
Polish, 377
Portuguese, 248, 275, 278-280
pragmatics, 16, 71, 102, 315
production of signs, 83-85, 394
proper name(s), 314, 357-358, 363-364
protest signs, 55, 68, 85, 229
public transport, 53, 118, 140

QR codes, 1, 389
qualitative approach(es), 91-92, 103-106, 109
qualitative research, 108-109
qualitative study(ies), 51, 92, 104, 108
quantitative approach, 51, 55, 76, 91, 93-94, 99, 103-104, 109, 279
quantitative study(ies), 96, 101, 104, 180

Reh, M., 42, 162-166, 168, 376
researcher-photographer. *See* photographer-researcher
restaurant(s), *38f*, 67, 126, 195, 207, 211, *212f*, **216t**, *326f*
Roman script, 28, 202, 243-244, 265, 270-272, 360
Russian, 19, 28, 75, 97-98, 240-246, 297-299, 377-379
Rwanda. *See* Kinyarwanda

salience, **95t**, 159, 182
Sámi languages, **185t**, 197-198, 219, 221, 338
sampling area. *See* survey area
San Sebastián. *See* Donostia-San Sebastián
Santali, **185t**, 201
Saussure, F. de, 16
schoolscape(s), 311, 326, 336-343, 349-350, **351t**, 355
semiotic landscape(s), 14-19, 79
semiotic resource(s), 15-16, 67, 366
Sesotho, 282-283, 340
Setswana, 220, 282, 285
Shohamy, E., 6-7, 9, 11-12, 28, 43, 47, 49, 88, 104, 121, 143, 192, 227, 250, 311, 371, 383
shop name(s), 8, 110, 163, 273, 279, 294, 296, 302, 360-363
shop owner(s), 84, 105, 231, 269, 293, 302, 361, 363
shopping street(s), 1, 196, 296, 391-393
sign production, 84-85, 338, 394
skinscape(s). *See* tattoo(s)
slogan(s), 74, **95t**, 305-306, 345-346, 392
Slovenian, **185t**, 198, *199f*
smartphone app(s), 101-103, 258, 335
smellscape(s), 16, 49, 159
social change, 77, 106, 364-367
social media, 107, 139, 146, 389
sociolinguistic context, 22, 370
Spanish, 36-37, 62, *101f*, *171f*, 186-189, 193, 202-203, 217, 236, 257-262, 303-304, 315-317, 321, 327, 343, 352, 364, 366, 374-376
Spolsky, B., 5, 17, 20, 28-31, 53, 56-57, 74, 85, 105, 110, 227, 245-246
storefront(s), 42, 131, 140, 167, 195, 363, 391
street art, 381, 385
street name(s), 75, 246, 265, 275, 280, 363, 366
  street name signs, 30, 182, 193, 238, 363-366
Street View. *See* Google Street View
superdiverse neighborhood, 106, *107f*, 122, 126
superdiversity, 106
super-multilingual sign(s), 386-387
survey area(s), 117-126, 373, 375
Swahili. *See* Kiswahili
Swedish, 42, 338
symbolic function(s), 59, 143, 288, 292, **343t**, 385

Tagalog, **185t**, 199-200
Tamil, 210, 265, 268-269, 271-273, 362
tattoo(s), 21, 116, 131, 160, 366
Thai, 44, 163, 209-210, **216t**, 303, 306, 340, 363, 380
Tigrinya, 73, **185t**, 190-191, 246, 288
tokenism, 204, 220-221
top-down signs, 12, 44, 94, 96-97, 99, 103, 111, 189-190, 199, 229, 270, 279, 286
Toubon law, 36, 230, 245, 295, 308, 376
tourism, 112, 121, 213-214, 279-280, 372-373

tourist guide technique, 143-144, 339, 350
touristification, 372-373
translanguaging, 108, 154-158, 172, 284-285, 306, 333, 340-341
translation, automatic, 212, 389
Turkish, 106, 169-170, 179, 305, 363, 379
typography, 64, 166-169, 387

Ukrainian, 240, 378
unit of analysis, 55, 93, 113-117, 238, 375
Uzbek, 244, 299

variationist linguistic landscape study (VaLLS), 99, 100
video displays, 116, 390
video glasses, 141, 151
video recording, 139-143
video screen(s). *See* digital screen(s)
Vietnamese, 211, *212f*, 247-248, 379
Võru, 336-337

Welsh, 62-64, 220,
West Greenlandic, **185t**, 191
World Englishes journal 8, 254, 309, 317
writing system mimicry, 165-166, 169

Yi, **185t**, 191-192
Yiddish, 102, 143, 217-218

zarafication, 392
zombie landscapes, 283
Zotero Linguistic Landscape Bibliography, 11, 50, 53, 281