



OLFACTORY STORYTELLING TOOLKIT

*A 'How-To' Guide for Working with Smells
in Museums & Heritage Institutions*



Published by:

ODEUROPA: Negotiating Olfactory and Sensory Experiences in Cultural Heritage Practice and Research

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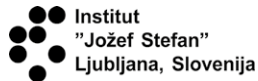
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TABLE OF CONTENTS

INTRODUCTION: SCENT IN THE MUSEUM 8

THE ODEUROPA PROJECT 13

WHAT IS THE IMPACT OF OLFACTORY STORYTELLING? 17

HOW TO USE THIS TOOLKIT? 20

INSPIRATIONAL CONTENT 22

WHERE DO I START? 25

1 CURATING OLFACTORY NARRATIVES/LINKING SCENTS WITH COLLECTIONS 27

HOW TO MAKE CONNECTIONS BETWEEN YOUR COLLECTION AND
OLFACTORY NARRATIVES? 31

HOW TO FIND OLFACTORY INFORMATION IN DIGITAL COLLECTIONS? 41

HOW CAN USING A *SNIFFER IN RESIDENCE* ASSIST ACHIEVING A NOSE-FIRST
PERSPECTIVE? 47

HOW CAN SMELLWALKS CAPTURE THE OLFACTORY LANDSCAPE IN AND
AROUND HERITAGE INSTITUTIONS AND SITES? 53

CASE STUDY 1: *RECONSTRUCTING A PERFUME FROM HISTORICAL TEXTS
FEATURING INEKE HUYSMAN* 61

CASE STUDY 2: *OLFACTORY STORYTELLING USED FOR VISITOR ACCESS AND
EDUCATION DESIGN FEATURING MARIE CLAPOT* 67

2 CREATING A HERITAGE SCENT 73

WHAT ARE HERITAGE SCENTS? 77

HOW TO ACQUIRE FRAGRANT MATERIAL? 81

CONSIDERATIONS FOR USING MALODOURS IN OLFACTORY STORYTELLING
BY LIAM R. FINDLAY 85

HOW TO DEVELOP A HERITAGE SCENT WITH A SCENT DESIGNER? 91

HOW TO EVALUATE HERITAGE SCENTS? 95

CASE STUDY 3: PRESENTING COMMUNAL HERITAGE VIA HERITAGE SCENTS
FEATURING TASHA MARKS AND CLAIRE DOBBIN 99

CASE STUDY 4: IN SEARCH OF LOST SCENTS: EARLY RESEARCH IN EMPLOYING OLFACTORY
METHODS FOR GLAM INITIATIVES FEATURING CARO VERBEEK 109

3 OLFACTORY EVENT DESIGN 115

WHAT TYPE OF OLFACTORY EVENT FITS YOUR ORGANISATION? 119

WHAT ARE THE COSTS OF AN OLFACTORY EVENT? 129

HOW TO PRESENT (HERITAGE) SMELLS IN GLAMS? 143

PROS AND CONS OF SMELL DISTRIBUTION TECHNIQUES 155

HOW TO MANAGE OLFACTORY EVENTS? 161

CASE STUDY 5: INSPIRATION FOR PRESENTING AND DISTRIBUTING SCENTS IN HERITAGE
SPACES FEATURING JORG HEMPENIUS 163

CASE STUDY 6: FOLLOW YOUR NOSE! A GUIDED TOUR WITH SMELLS AT MUSEUM ULM,
GERMANY FEATURING LIZZIE MARX 169

4 ACCESSING RISKS 177

CONSIDERATIONS FOR SELECTING SCENTS AND THEIR PRESENTATION TECHNIQUES 181

HOW TO IDENTIFY AND MITIGATE RISKS IN HERITAGE SPACES? 183

HOW TO ASSESS RISKS AND DEVELOP MITIGATION STRATEGIES? 189

SMELL MANIFESTOS

INTRODUCTION TO SMELL MANIFESTOS 195

THE PERSUASIVE POWER OF SMELL BY JANE PLAILLY 199

HONOURING THE MULTIFACETED SENSE OF SMELL BY ANNICK LE GUÉRER 203

DIARY OF SMELLS: OLFACTION AS AN EXPERIENTIAL MEDIUM 2010-2023

BY JOSELY CARVALHO 205

USING SCENT TO ENHANCE THE ARTISTIC EXPERIENCE BY NADJIB ACHAIBOU 213

APPENDIX 219

OVERVIEW OF THE *OLFACTORY STORYTELLING TOOLKIT* RESOURCES 220

APPENDIX CHECKLIST 223

RELEVANT LITERATURE 235




INTRODUCTION: SCENT IN THE MUSEUM



Scent in the museum. For a long time, this phrase would have raised red flags for conservators, curators, archivists and visitors of heritage spaces – and in many cases it still does. Scents? Where? Surely not in the galleries or in the depot?! Do they indicate undesirable moulds in books or other objects? Are odours spilling from the restroom or the museum café? Do these scents suggest the presence of airborne dangers that might affect the artefacts? Recognised as a hazard or simply lurking in the background, visitors and heritage professionals alike are not accustomed to actively paying attention to smells in cultural heritage institutions. Scents are assumed to be incidental, unintentional, and unwanted.

Recently, we find ourselves in a scent renaissance where “odourphobic” attitudes are slowly giving way to practices of *olfactory storytelling* in the cultural sector. Motivated by a desire to create more immersive experiences and to diversify the narratives told and the audiences reached, GLAMs (galleries, libraries, archives, and museums) are discovering that smells and our olfactory sense are both powerful tools for storytelling and for the presentation of heritage objects and spaces. These ‘olfactory turns’ in the world of art and culture have come and gone over the years. The early twentieth century played host to the artistic olfactory experiments of the Futurist [Filippo Tommaso Emilio Marinetti](#) and the Dadaist [Marcel Duchamp](#). At the end of the twentieth century a rush of smell culture writings by [Alain Corbin](#), [Anthony Synnott](#), [Constance Classen](#), and [David Howes](#) appeared. In 1989, [The International Perfume Museum](#) was founded and has been experimenting with various forms of olfactory storytelling ever since while also presenting a unique collection of items relating to the history of perfume. Additionally, in 1990, the [Osmothèque](#) was founded in Versailles, France, and remains the world’s only perfume archive, safeguarding over 3000 perfumes. In recent years, olfactory art and artists have gained traction. Pioneers such as [Oswaldo Maciá](#), [Ernesto Neto](#), [Clara Ursitti](#), and [Sissel Tolaas](#) have played a huge role in pushing smell into the cultural mainstream.





Design of Smell in the Museum! Created for Odeuropa's final event, the *Smell Culture Fair* which took place at the end of 2023. Designed by Liam R. Findlay.

But the current *scent renaissance* has truly gained momentum in the last decade, turning scent from a medium traditionally associated with beauty and cosmetics (perfumery) or health and wellness (aromatherapy) to an increasingly accessible resource for art, storytelling, and curation. Non-profit organisations like the [Institute for Art and Olfaction](#) (Los Angeles, USA), [Aftel Archive of Curious Scents](#) (Berkley, USA), and [Smell Lab Berlin](#) (Berlin, Germany) provide open access perfume organs and classes that help beginners become familiar with the art of perfume making. The opening of Andreas Keller's [Olfactory Art Keller](#) gallery, which opened in 2020, opened new avenues for olfactory artists to showcase their experimental and unconventional art. The artistic and academic elements of the *scent renaissance* have frequently connected with each other: Andreas Keller is both a member of the art world and a published philosopher.

Museums and heritage sites around the world have also warmed to the idea of curating with scent. Exhibitions that evoke the experience of smelling have proliferated: *If There Ever Was* (2008), *The Art of Scent* (2012), *Inhaling Art* (2014-2017), *There's Something in the Air - Scent in Art* (2015), *Belle Haleine - The Scent of Art* (2015), *Die Bibliothek der Geruche* (2017), *The Museum of Smells* (2018), *Quel Flair! Odeurs et Sentiments / Scents and Feelings* (2019-2020), *Queens of Egypt* (2019), *Fleeting - Scents in Colour* (2020-2021), *Odore* (2021), *Smell It!* (2021), *L'Odysée Sensorielle* (2021-2022), *London: Port City* (2021-2022), *Es-Senze* (2022), *Respirer L'Art* (2022-2023), and *Sensational Books* (2022) are just the top notes of a varied bouquet of olfactory exhibits. With these exhibitions, visitors were able to smell a wide array of smells with various intentions in mind. Some examples include historically informed or *heritage scents*. These include the smellscape of a [seventeenth-century grocer's shop](#) at the [Mauritshuis Museum](#), The Hague, the smells of London's docks that were recreated in a collaboration between local families and the [Museum of London Docklands](#), London, and the [reconstruction of Cleopatra's perfume](#) at the [National Geographic Museum](#), Washington D.C. Some employ scent as a more immersive medium, such as the ambient nature smells which were disbursed at the *L'Odysée Sensorielle* exhibition at the [Museum of Natural History](#) in Paris, France.

These examples show that smells can be employed in different ways and within different heritage institutions: art galleries, (natural) history museums, libraries, archaeological sites, or (perfume) archives. They also demonstrate that scents in heritage contexts can come in many forms. They can materialise as olfactory artworks. They can be recreated from historical recipes (household medicines,

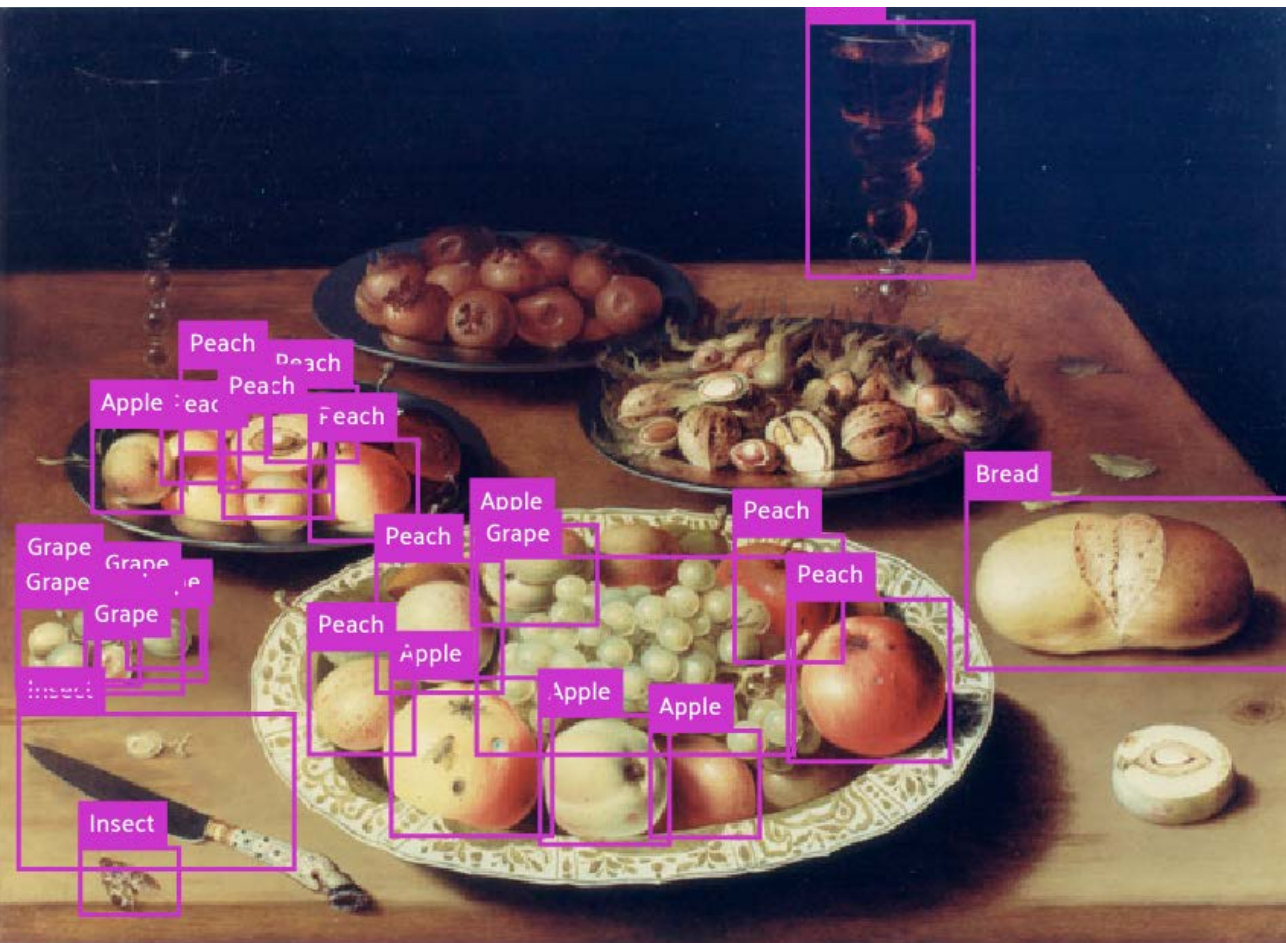


Museum Ulm's flyer for *Follow Your Nose!* created by Studio Erika. Image courtesy of Museum Ulm.

pomanders, embalming powders), presented as interpretations of historical smellscapes (a Victorian street, a bell foundry) or offered as entries into the world of intangible heritage practices and crafts (incense burning, jenever distillation). These olfactory presentations can play different roles: from creating immersive experiences to historical sensations – learning about art and history through the senses and highlighting the function of objects that were not just meant to just be seen but also to be *sensed*.

The growing popularity of olfactory storytelling in a heritage context also comes with challenges. Curators may want to find olfactory subjects in their collections or employ scents as a storytelling technique but are unsure about how or where to begin. In the Western world, we are trained to approach the world with our eyes before our other senses. This has conditioned people's behaviour in many cultural and communal spaces. It means an eye-first approach takes precedent with little encouragement to use our other senses. Approaching GLAM

environments nose-first raises many questions about the practice of olfactory storytelling. How do you find relevant olfactory stories for your institute? How can (digital) collections inform these decisions? How can you curate and present unique olfactory objects found within your collection? Does your institution have a significant smellscape and how would one preserve this fleeting type of heritage? How do you acquire and develop *heritage scents* and how do you incorporate them into your space? What resources are necessary to make an olfactory exhibition or (guided) tour happen? And what is the projected impact of your olfactory event? How do you diffuse or conserve scents safely and properly and if you do, are there possible threats to your collections and visitors? This guide aims to provide some – though not all – of the answers to these questions.



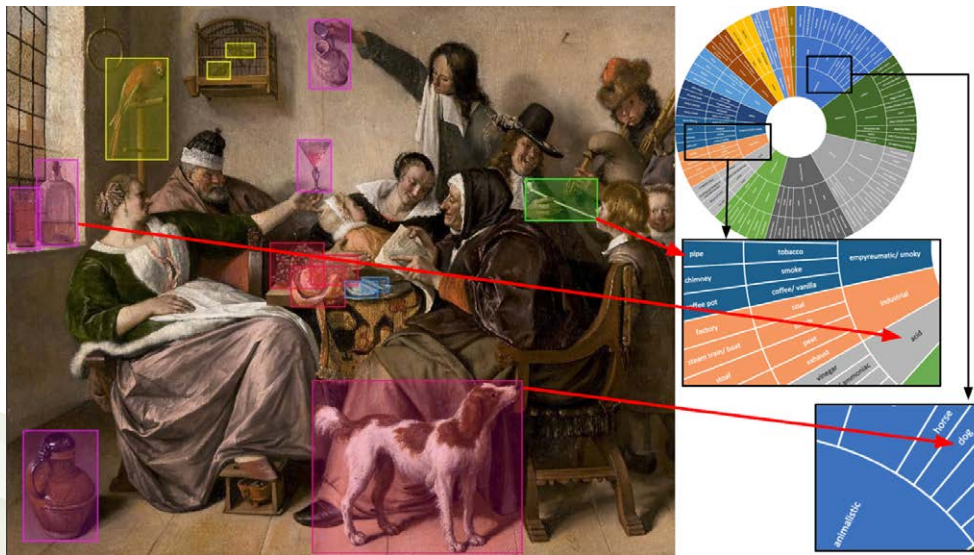
Example predictions of smell-related images from the object detection models developed by Odeuropa's computer vision team. Photo courtesy of Odeuropa.

THE ODEUROPA PROJECT

These are some of the questions that have driven the members of Odeuropa over the last three years (2020-2023). *The Olfactory Storytelling Toolkit: A 'How-To' Guide for Working with Smells in GLAMs and Heritage Institutions* (2023) is just one of a set of resources produced by Odeuropa as a result of research within the field of olfactory heritage. These outcomes support the project's main argument: that critically engaging our sense of smell and our olfactory heritage is an important and viable means for connecting and promoting Europe's tangible and intangible cultural heritage. This mission was achieved by focussing on different strategies throughout the duration of the project.

First, we developed innovative artificial intelligence methodologies for 'sensory mining,' so we could capture olfactory information from digital European heritage collections. This data, which brings together a large number of historical text and image collections, can be accessed via an open access searchable tool: the [Odeuropa Smell Explorer](#) (2022). The Smell Explorer provides a gateway to our rich olfactory past and provides a platform for curious individuals to find paintings and prints that depict sensory scenes alongside historical texts that recount the smell experiences of past 'nose witnesses.' You can learn more about how Odeuropa connects computer vision techniques to finding olfactory narratives in digital European heritage collections [here](#).

This olfactory information is also curated into entries and [storylines](#) in the *Odeuropa Encyclopedia of Smell History and Heritage* (2023). Here experts from smell studies have contributed entries on smells, noses, smellscapes, and olfactory objects. These entries help narrate the value of olfactory heritage, discovering how scents have moulded our communities and traditions. The *Encyclopedia of Smell History and Heritage* also contains storylines in the form of multilinear digital narratives that allows users to explore the European past by following their noses. Both the *Smell Explorer* and *the Encyclopedia of Smell*



Examples of how to make connections between artworks and the Odeuropa “Nose-First Art Historical Odour Wheel”. Photo courtesy of Odeuropa.

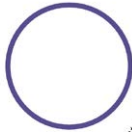
History and Heritage were developed to educate and inform GLAM professionals, scent designers, scholars, and the public on Europe’s olfactory history and to increase accessibility to this knowledge.

In preparation for developing the *Olfactory Storytelling Toolkit: A ‘How-To’ Guide for Working with Smells in GLAMs and Heritage Institutions*, we also curated various olfactory events and projects such as [nose-on workshops](#), [olfactory guided tours](#), [rub and sniff cards](#) and even an [olfactory logo](#) (by [The Snifferoo](#)), which have all presented heritage scents to the *public’s noses*. Through these events, we were able to develop, test, and document different methodologies for olfactory storytelling and form a better understanding of which of these worked best within different contexts. In the case of Odeuropa’s methodology for the *Olfactory Storytelling Toolkit*, the use of olfactory storytelling aligns with the examples above. This means the careful orchestration of scents and the activation of our sense of smell are used in a meaningful way to connect to the GLAM environment, collection, and historical concepts of heritage practices, places, and objects.* Olfactory art is an important part of the incorporation of

* This definition is based on the writings found in Nina Levent and Alvaro Pascual-Leone’s book, *The multi-sensory museum: Cross-disciplinary perspectives on touch, sound, smell, memory, and space* (2014).



Odeuropa



Odeuropa scent logo



your separate ingredient

- Ozone
- Davana
- Eugenol
- Undecavertol
- Rosemary
- Olibanum
- Para cresyl acetate
- Ambroxide



Frank Bloem preparing the olfactory logo in his studio. Photo credit Marieke van Erp.

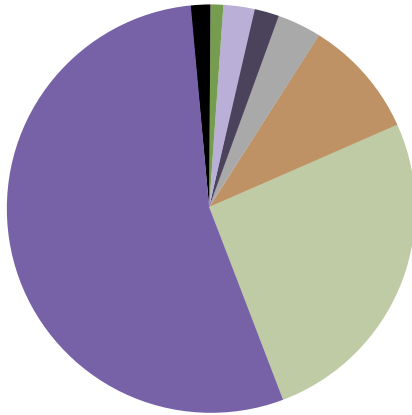
The Odeuropa olfactory logo. The visual logo was designed by Dr Kate McLean and the olfactory logo was designed by Frank Bloem ([The Snifferoo](#)).

scents in GLAMs and olfactory artists have contributed greatly to innovation and creativity in this field, however, to retain a focus for this resource we do not include olfactory art within our scope.

It is important to mention that using olfactory storytelling in GLAMs is not a new concept, however a methodology to understand the impact and value of their inclusion has yet to be developed. This is where Odeuropa's creation of scientific standards to measure the impact of olfactory storytelling in heritage environments becomes crucial. Through questionnaires and interviews we reached over 800 GLAM visitors who were willing to describe their experiences of olfactory events. Both the events and the data we collected from these questionnaires were central to the development of the *Olfactory Storytelling Toolkit*.



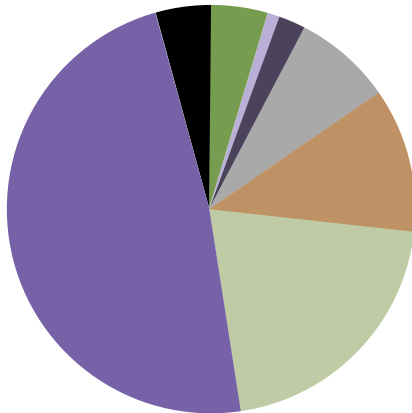
The smells made the tour / visit special



- Strongly disagree > 1%
- Disagree > 3%
- Somewhat disagree > 2%
- Neither agree or disagree > 3%
- Somewhat agree > 9%
- Agree > 26%
- Strongly agree > 54%
- No reply > 2%

Results from the Odeuropa impact questionnaires. These charts show the answers to the statement 'The smells made the tour/visit special' (sample of 201 questionnaires).

I would like to experience more tours / exhibitions with smell in the future



- Strongly disagree > 5%
- Disagree > 1%
- Somewhat disagree > 2%
- Neither agree or disagree > 8%
- Somewhat agree > 11%
- Agree > 21%
- Strongly agree > 48%
- No reply > 4%

Results from the Odeuropa impact questionnaires. These charts show the answers to the statement 'I would like to experience more tours with smell in the future' (sample of 201 questionnaires).



WHAT IS THE IMPACT OF OLFACTORY STORYTELLING?



From the interviews and questionnaires we conducted with over 800 individuals who visited GLAMs across Europe, we learned that olfactory storytelling has a considerable impact on visitor experience. Embracing multisensory approaches and olfactory museological techniques offers innovative visitor experiences that attract diverse visitor groups and leads to a considerable rise in visitor participation. In general, every target group seems to have benefited from smelling as an additional means of storytelling. Nearly 90% of those interviewed at olfactory museum events stated that adding smells made museum visits and heritage tours special. 75% specified that they felt more immersed in the heritage objects and stories when scents were used. A considerable number stated that they would be willing to pay more for a visit if it included smells.

The data also implies that engaging with olfactory storytelling in a heritage context can raise vivid memories and strong emotions. Visitors expressed that they felt particular emotions, including happiness, anxiety, and sometimes overwhelm, when engaging with the scents. However, in general they felt more connected to the past, the institution's collection, and to other visitors. It is also clear that olfactory storytelling not only achieves more immersive visitor experiences, but can have a strong educational value. A large majority stated that interaction with the scents helped them to better understand the artworks, the heritage objects, and the spaces.

Odeuropa's evaluation highlights that olfactory storytelling is inclusive, shapes a sense of community, and offers an innovative tool that the cultural sector can use to engage audiences. Museums and archives are redefining their roles as institutions that serve society and are rethinking their processes of researching, collecting, conserving, interpreting, and exhibiting tangible and intangible heritage. Using olfactory storytelling and supporting olfactory heritage can offer us new gateways to the past. It can help to narrate less documented histories,



Olfactory artwork by artist [Romuald Hazoum ](#), *La Bouche du Roi*, as part of the [Slavery](#) exhibition at the [Rijksmuseum](#), Amsterdam, the Netherlands in 2021. Photo credit Sofia Collette Ehrich.

cultural practices that have left few materials objects, or that were never considered valuable enough for conservation.


As we have already suggested, using scent in GLAMs has a long list of benefits. Olfactory storytelling can enhance the educational value and enjoyment of cultural heritage (institutions). Smells can trigger affective responses and mnemonic relations, foster community values, and promote diversity and well-being. Visitors become more attentive and start to notice different details in paintings and objects. Smelling also makes people more talkative. Smell is a mode of communication, and quite democratic: most of us 'know' just as much about smell as the other person. Therefore visitors feel comfortable to engage in conversations with others, exchanging memories, feelings and knowledge, and appreciating input by other participants. Smells can make visitors appreciate the 'world' of others, no matter how different they are.

Scent can help to narrate dark, but essential, sides of our past, present and future – such as the history of slavery, colonialism, capitalism, and climate change. A powerful example of this is the slave ship [*La Bouche du Roi*](#) (2007) that was exhibited by Romuald Hazoumé in various museums. A composed scent of tobacco, spices, human urine and faeces, which was a part of the artwork, helped to materialise the horrid conditions in a slave ship and make these more tangible. Although invisible and hard to grasp, smell can be extremely powerful. It is often overlooked, but plays an essential role in our cultures and personal lives.



HOW TO USE THIS TOOLKIT?

Odeuropa's *Olfactory Storytelling Toolkit: A 'How-To' Guide for Working with Smells in GLAMs and Heritage Institutions* is created for conservators, curators, educators, tour guides, museum directors, archivists, librarians, and all others who are interested to work with smells in a heritage context. This guide is a resource that provides a basis for cultural heritage professionals to use smell as a storytelling technique within their own curatorial practice. Throughout the text it may seem as if the language and structure of the information is geared towards curators. However, we believe that different parts of the *Olfactory Storytelling Toolkit* will suit the needs of different types of cultural heritage professionals. It is important to note that we will often use the word 'museum' or 'heritage institution' to represent all GLAMs (galleries, libraries, archives, museums).



The guide provides methods – from beginning to end – to bring an olfactory narrative from the (physical) collection item towards visitor engagement. The guide not only presents tips for building a strong olfactory narrative (and where to start finding those stories) but also outlines the more practical elements of olfactory storytelling such as *sniffing out* olfactory objects and spaces with *smellwalks* and a *sniffer in residence*, best practices for presenting and distributing scents in the museum space, creating (heritage) scents with a scent designer and how to carry out your own risk assessment in GLAM environments.

The toolkit is divided into four sections which each contain a series of chapters. **Section 1 – Curating Olfactory Narratives** covers what olfactory stories are and how to find them. This section will equip you with keywords and vocabularies that will assist you in finding narratives within your digital and physical collections. It will also provide guidance on nose-first methodologies for finding olfactory spaces and objects within your institution. **Section 2 – Creating a Heritage Scent** provides detailed information about how to work with a scent

designer on the creation of a heritage scent. This includes defining what a heritage scent is, considering how to address authenticity, briefing the scent designer for the creation of the scent, and evaluating the scent creation for its desired impact. **Section 3 – Olfactory Event Design** explores the different types of olfactory events that are available to you together with some examples. This section is practical and hands-on. It helps you choose an olfactory distribution technique that works best for your event and space. After reading section 1, 2 and 3, you should better understand how to select a collection item, develop an olfactory narrative around it, produce and choose a related scent (material), and successfully present it to a public audience. **Section 4 – Risk Assessment** focusses on assessing and mitigating risks associated with working with smells in GLAMs. Here you will find initial advice that will help you to consider the impacts of introducing new volatile organic compounds (VOCs) into a museum environment and develop strategies to mitigate them. This section also covers guidelines to communicate with the public about the provenance and safety of the chemical compounds used in olfactory storytelling.



INSPIRATIONAL CONTENT

In addition to the four sections, we have included inspirational content along the way that we hope stimulates and encourages you to not only value your sense of smell but also to trust it as a means for learning and engaging with your surroundings.

Between the sections we have inserted relevant case studies which showcase how various curators, scholars, scent designers, and olfactory consultants have used olfactory storytelling in their own practice. These case studies vary in topic and format but all of them offer personal and tangible experiences of the benefits and challenges of bringing scents into the museum. A brief overview of each case study follows.

SECTION 1 – CURATING OLFACTORY NARRATIVES

- **Case Study #1** – *Reconstructing a Perfume from Historical Texts* focusses on scholar and researcher [Ineke Huysman](#) and the knowledge she acquired working on a project called [Memory of Scent](#). She spoke about the experience of recreating Constantijn Huygens' (1596-1687) [Ode de Parfum: To My Mother](#) from 1635.
- **Case Study #2** – *Olfactory Storytelling Used for Visitor Access and Education Design* focusses on [Marie Clapot](#), a sensory museologist at the [Metropolitan Museum of Art](#), and showcases how the incorporation of multisensory engagement can create a more inclusive environment for those with disabilities.

SECTION 2 – CREATING A HERITAGE SCENT

- **Case Study #3** – *Presenting Communal Heritage via Heritage Scents* is an interview with sensory consultant [Tasha Marks \(AVM Curiosities\)](#) and freelance curator [Claire Dobbin](#) about their experience working on the [London: Port City](#) exhibition at the [Museum of London Docklands](#). The case study discusses the methods, results, challenges, and solutions of the use of smell in an exhibition that explores communal heritage.

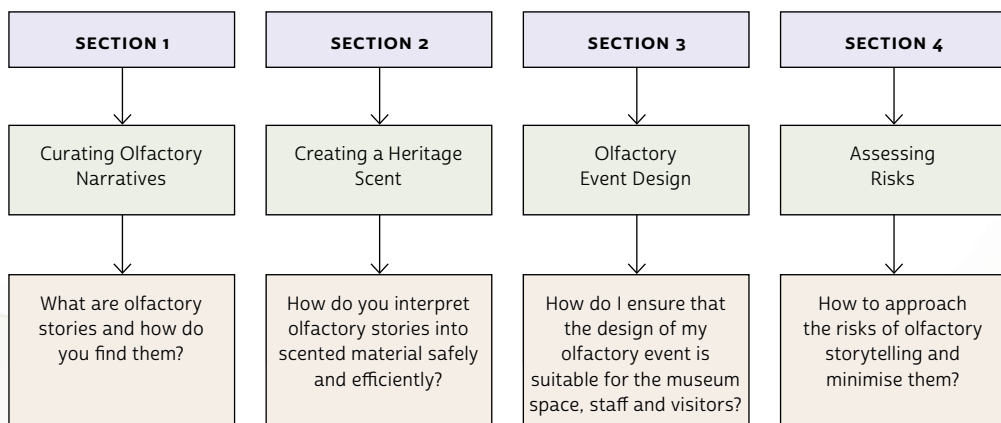


Diagram of an overview of the *Olfactory Storytelling Toolkit: a 'How-To' Guide for Working with Smells in Museums and Heritage Institutions*.

- **Case Study #4** - *In Search of Scents Lost: Early Research in Employing Olfactory Methods for GLAM initiatives* is an interview with curator and art historian [Caro Verbeek](#). The project Verbeek organised as part of her PhD, *In Search of Lost Scents - Reconstructing the volatile heritage of the avant-garde*, served as inspiration for Odeuropa. The goal of this case study is to better understand what adding an olfactory dimension to storytelling actually achieves for different target groups.

SECTION 3 – OLFACTORY EVENT DESIGN

- **Case Study #5** - *Inspiration for Presenting and Distributing Scents in Heritage Spaces*, [Jorg Hempenius](#), scent expert and founder of [iScent](#) in the Netherlands, guides the reader through a wide array of smell distribution techniques that can be utilised in different GLAM institutions.
- **Case Study #6** - *Follow Your Nose! A Guided Tour with Smells at Museum Ulm, Germany* is an interview with curator and art historian [Lizzie Marx](#). *Follow Your Nose!* was an event organised by Odeuropa in collaboration with [Museum Ulm](#) and [IEF](#) and was itself part of the research that contributed to the creation of Odeuropa's *Olfactory Storytelling Toolkit*. As a co-curator of the event, Marx explains the benefits of olfactory guided tours and offers interesting insights into the research behind certain heritage scents.



Just after section 4, we feature four *smell manifestos* which were commissioned especially for Odeuropa. We invited olfactory artist [Josely Carvalho](#), philosopher [Annick Le Gu  rer](#), perfumer [Nadjib Achaibou](#) and neuroscientist [Jane Plailly](#) to share their love and thoughts on olfactory storytelling and their sense of smell. Although placed at the end of the resource, these manifestos can be visited and revisited at any time throughout the use.



WHERE DO I START?



The *Olfactory Storytelling Toolkit* is meant to be read as an online resource as it has interactive components via clickable hyperlinks. Hyperlinks may lead to an Odeuropa developed resource for your own use and exploration, the website of an olfactory event, external resources and databases, and audiovisual content. The toolkit is also available to download in its entirety or by section for reading and marking up as you wish.

This resource does not need to be read *from back to front*, however, we suggest that if you are completely new to the subject, that you read the sections in the order that they are presented. Depending on your knowledge and interests, you can pick and choose what you would like to read first. For example, a curator wishing to find olfactory narratives in their collection and link those narratives to olfactory materials may want to read section 1 and section 2. A museum educator or tour guide for a heritage site may want to start with section 1 and especially chapters 3 and 4 which focus on employing nose-first methods to approach olfactory heritage objects and spaces.

Although this resource was developed with GLAM professionals in mind, it is beneficial for a variety of users: scent designers, teachers, community groups, scholars, historians, designers, and artists who wish to employ olfactory storytelling. Scent designers who wish to create atmospheric scents and/or scents that represent historical concepts may find section 2 helpful, whereas an artist who wishes to incorporate scents into their design may find section 3 more useful.

This resource should not be treated as the *be-all and end-all* of olfactory storytelling. We understand that this resource may answer a lot of questions but that it may also raise many along the way. It is important to consider that this toolkit is built on the experiences and insights of the trailblazing olfactory

storytellers before us and that its contents should be considered as the basis for future conversations, development, and research. We welcome you to start reading and experimenting. We hope that the *Olfactory Storytelling Toolkit* inspires as well as informs and opens new conversations amongst your colleagues, friends, and family.

Have fun and keep smelling.

1

**CURATING OLFACTORY
NARRATIVES**
LINKING SCENTS
WITH COLLECTIONS





What are olfactory stories and how do you find them?

What olfactory clues already lie hidden in the collection and how can they be traced? In an ocular-centric culture these ideas can be quite challenging to grasp. We hope that the introduction of the *Olfactory Storytelling Toolkit* inspired you to start using olfactory storytelling in your own heritage institution. However, getting started may seem challenging and you might not know where to start. Finding and choosing the olfactory stories that you want to tell is a good place to start.

This section will provide exploratory techniques and methods that will help you approach your heritage collection from a *nose-first* perspective. The first chapter will introduce you to the concept of *olfactory stories* and help you detect them in various types of collections. The second section will provide helpful information for finding smell related content in various types of collections. Here we will also introduce digital databases that can assist this process. The third and fourth chapter will put our noses first by informing on how to explore material smells and smellscapes through depot sniffing sessions and smellwalks.

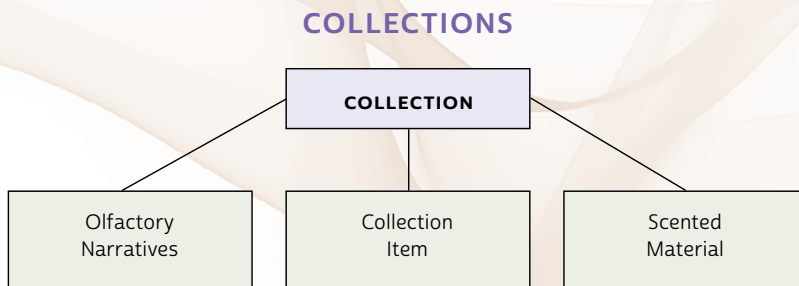
CHAPTER 1	CHAPTER 2	CHAPTER 3	CHAPTER 4
How to make connections between your collection and olfactory narratives?	How to find olfactory information in digital collections?	How can using a <i>sniffer in residence</i> assist achieving a nose-first perspective?	How can smellwalks capture the olfactory landscape in and around heritage sites and institutions?
This chapter explains what olfactory stories are and how you can link your collections with them.	This chapter provides instructions on how to find olfactory stories in (digital) collections.	This chapter challenges you to open your collection to an expert nose to explore your collections nose-first.	This chapter turns your heritage institution or site into an olfactory landscape to be explored. It provides detailed information on how to conduct a <i>smellwalk</i> from beginning to end.



HOW TO MAKE CONNECTIONS BETWEEN YOUR COLLECTION AND OLFATORY NARRATIVES?

The type of stories you tell about, through, or with smell will depend on the type of materials you have in your collection. Books, objects, artworks, and historical spaces all offer different opportunities. Every olfactory story has a set of characters: materials, places, and noses. These are the best places to start when thinking about olfactory stories. They will provide the search terms that you can use to trace smell-relevant material in your digital collections, which we will expand on in chapter 2.

To help you find narratives within your own collection, see *Storyboarding. Smell Cards to Design Olfactory Narratives* ([OST Resource 1](#)).



How you find relevant olfactory stories within your collections will depend on the type of collection and the context in which you want to use those stories. In this sense, the contents of the collection greatly impacts the olfactory narratives available and as a result, the artefacts chosen and the scent material presented for visitor engagement. Below we outline different scenarios and how these scenarios can lead to olfactory storytelling. None of the below scenarios are exclusive and some materials may suit particular olfactory stories better than others.




~ LIBRARIES AND ARCHIVES ~

Libraries and archives consist mainly of printed works or manuscripts. Collection managers can assist in finding items with a particularly pungent scent (ex. tobacco-stained books, books with pressed herbs, or unusual smelling paper and bindings) that can be used for olfactory storytelling. The texts themselves also offer interesting olfactory narratives, for example household recipe books or novels offer the opportunity to reconstruct the smells of particular recipes. Novels can also provide further inspiration in terms of the smells the characters encounter or the smells of the spaces in which those novels might have been read. The conditions in which the book has been used or stored may also have imbued it with a particular scent.

~ GALLERIES ~

The Dutch artist Rembrandt van Rijn warned his seventeenth-century patrons not to stand too close to his paintings, as they may be offended by the smells of the materials he used. The smellscape of galleries tend to be shaped by their transformative and experimental function. With the experimental tone in mind, these spaces can focus on smells associated with creating those artworks: paints, varnishes, inks, and other materials. Making art is a smelly practice and introducing visitors to this process can both engage and inform about historic artistic processes and how smell played a role.

~ ART MUSEUMS ~



Art museums contain a variety of objects, such as paintings, prints, artefacts, and sculptures that can offer rich material for olfactory storytelling. Since art museums vary in size and resources, searching for olfactory stories entails a bit more thought. We offer two approaches. Firstly, you could focus on the materials used or on materials that certain objects once contained. Scent related objects could be perfume bottles, pot pourri bowls, pomanders, and censers, or perfumed items such as gloves and powdered wigs. These do not need to be actual objects but can also be depicted in paintings. This leads to another approach, which is to offer visitors an opportunity to ‘smell what you see.’ Here, scents are presented to match aspects of the collection item. This approach includes particular visual narratives which are shaped by their olfactory significance or olfactory iconographies. Olfactory significance may include a seventeenth-century grocer’s shop packed full of spices whereas olfactory iconographies include narratives like Adoration of the Magi and the Anointing of Christ by Mary of Magdalene.

~ HISTORIC ENVIRONMENTS ~

Historical environments and heritage sites also offer interesting opportunities for olfactory storytelling. Visitor engagement can centre around built heritage or a historical space, such as a church or an industrial heritage site. You could try to find out which materials were used and which activities took place in these spaces and which smells were likely to accompany the process. Events that are particularly smelly could include war, weather conditions, manufacture of products, the use of certain technology (steam engines, fire), flora and fauna, and rites and rituals. These types of environments can also highlight objects which relate to the olfactory events and the practices that happened there. Due to the rich location-specific content found at heritage sites, it could be interesting to present your visitors with scent timelines that map out the different scents and the related narratives and practices surrounding that specific place. This offers opportunities for visitors to compare and contrast the smellscape throughout time reflecting on topics of, for example, class, religion, and sustainability.

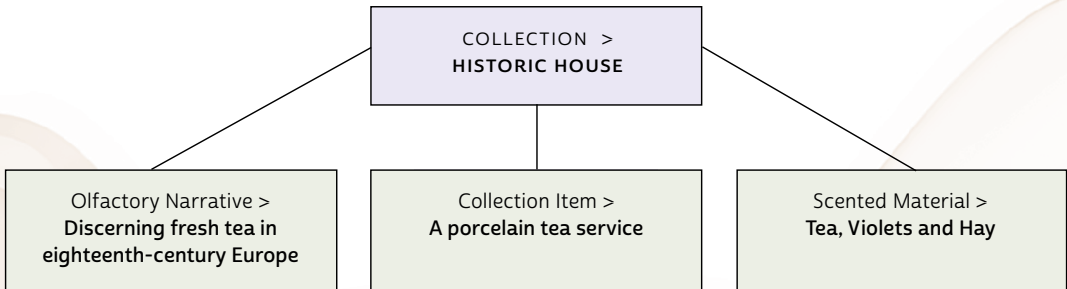
EXAMPLE: CURATING WITH SMELLS

In 2008 preservation architect and educator Jorge Otero Pailos, collaborated with Rosendo Mateu ([Puig](#)) and the Carolina Herrera fragrances team to create an olfactory reconstruction of [Philip Johnson's Glass House](#) in Connecticut, United States between 1949 and 1969. The reconstruction, containing cigarette smoke, leather, and cologne, was meant to make visitors reflect on the meaning of how the tobacco stain on the ceiling of the historic building is an important indicator of the passing of time and to highlight conservational moves like the process of cleaning the house of these kinds of meaningful stains.

CHARACTERS

When building your olfactory story, you can choose to highlight different *characters*. Keep in mind that your *characters* are not just represented through types of *noses* but also olfactory iconographies, smell sources, places or smellscapes, and feelings.

~ NOSES ~



Who are the noses in your olfactory story? What socioeconomic background were they from? Which gender? Which profession did they practise? Which cultural background did they have? Was their scent ever described? In eighteenth-century Europe when commodities such as tea and coffee were new, merchants, grocers, and consumers all had to develop the ability to sniff out good quality tea, which was said to have the scent of fresh hay or violets. Another good example could be Napoleon Bonaparte who used eau de cologne in enormous quantities. This scent was only available for the upper class (unlike now). Famous actors such as Judy Garland were known for their use of perfume. Doctors practised their sense of smell to both recognise illnesses and to treat them with fragrant materials. Or what about the nose of a parent changing the diaper of their baby. Many personifications or allegories of smell show a parent changing a child while bystanders pinch their nose.

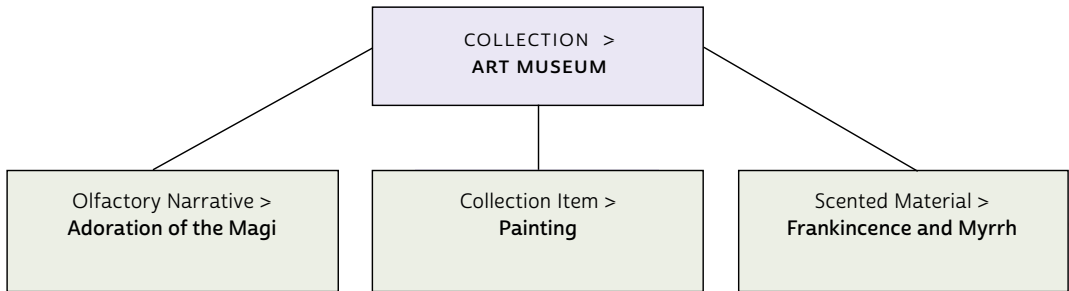


[Girl Smelling a Lily](#), Charles de Ligne, after Guercino, 1774 - 1792; etching, h 162mm x w 176mm. Free of Rights. Photo courtesy of the Rijksmuseum, Amsterdam, the Netherlands.



[Smell](#), Hendrick van Beaumont, after Abraham de Blois, 1696, red chalk. Free of Rights. Photo courtesy of the Rijksmuseum, Amsterdam, the Netherlands.

~ OLFATORY ICONOGRAPHIES ~



Within your collections, you can choose to highlight particular olfactory iconographies also known as visual or written narratives that are shaped by their olfactory significance. Olfactory iconographies are extremely beneficial for highlighting parts of your collection that are missed because they are hidden in the background. Detecting olfactory iconographies can greatly enhance the museum experience as they can offer “a new way of seeing” the collection and can keep visitors looking at the artworks with little to no intervention of scented materials. However, bringing olfactory iconographies forward through the engagement with scented material is beneficial for getting visitors to learn about these narratives in a new and memorable way.

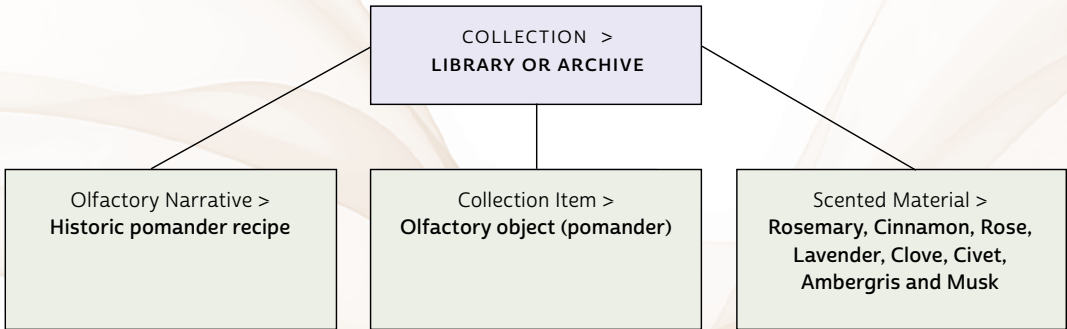


[The Adoration of the Magi](#), Jan Jansz Mostaert, c. 1520 - c. 1525, oil on panel, h 51cm x w ca.36,5cm. Free of Rights. Photo courtesy of the Rijksmuseum, Amsterdam, the Netherlands.



Images of the *Sensational Books* exhibition, a multisensory exhibition at Oxford University's Bodleian Library (2022) in the UK. The image on the left shows a wall display with scents that visitors could interact with. Photo credit George Alexopoulos.

~ SMELL SOURCES ~



Smell sources are either depicted in paintings or found in collections. Smell sources can be a painted detail (an outhouse on a seventeenth-century Amsterdam canal or a pomander held in the hand) or they can be a physical collection item like a snuff box or apothecary cabinet. You can ask yourself, did your objects have a particular smell in the past and do they have a particular smell now? How were these objects made and did the process of making them emit particular odours? Did the use of the objects involve the production of smells? What smells might have surrounded this particular object? The life story of an object from making, through use, to its new home in a museum collection, can also reveal an item's olfactory biography.



~ PLACES ~



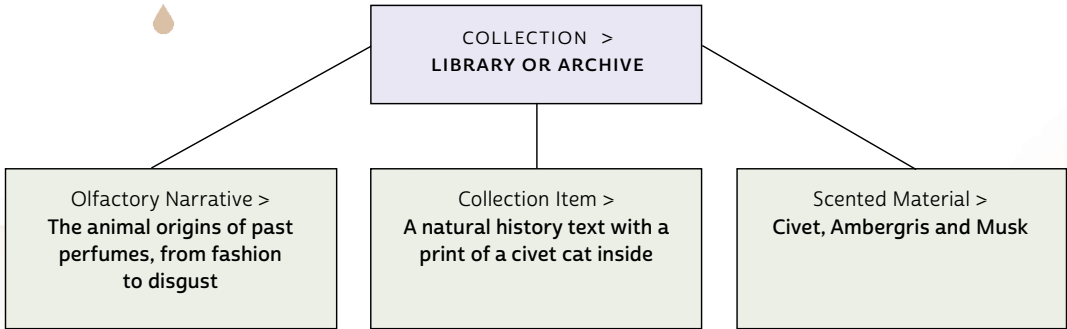
Exploring the smell of a historic or fictitious place can also offer a way of crafting an olfactory story. Where does your olfactory storyline occur? Do the smells change from space to space? Do the smells present change throughout time and how does the materiality of the place impact that change? Examples could be a sixteenth-century church (mould, bodies alive and dead, incense, rushes, herbs), a seventeenth-century coffee house (coffee, tea, fresh newsprint, tobacco, fires) or a nineteenth-century ship (sailors, tar and oak, traded commodities). Olfactory stories may be inspired or informed by historic texts and images of the place. Or 'expert noses' can visit historical smellscapes and record their olfactory impressions.



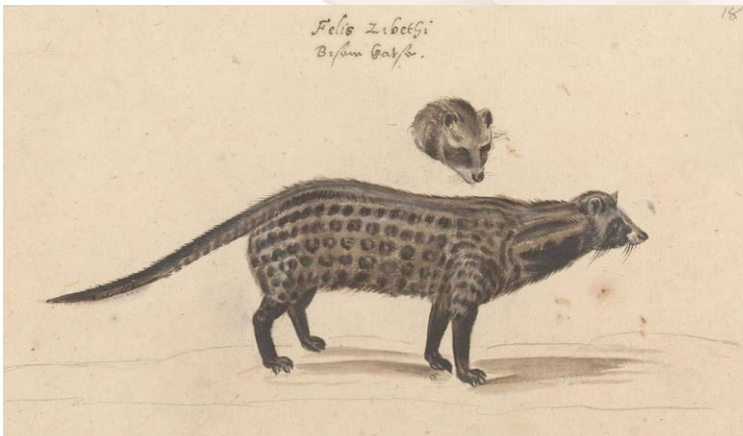
[Descent into Limbo](#), Philippe van Mallery, 1608 - ca. 1639, engraving and etching, h 89mm × b 54mm. Free of Rights. Photo courtesy of the Rijksmuseum, Amsterdam, the Netherlands.



~ FEELINGS ~



The emotions that people felt in response to odours are also central to any story. Past responses to certain olfactory materials have varied hugely. The smell of tobacco smoke has been associated with ritual in Indigenous communities. In the West it has moved from an exotic and fashionable scent to a risk to public health and now, in an era of public smoking bans, a nostalgic scent associated with past smellscape of theatres, music venues, and pubs. How did people feel about particular odours in the past and how do these differ to our own feelings – both curators and potential audiences – today? A lot of the richness of olfactory stories comes from being able to explore the similarities and differences between responses to odours today and in the past as well as our thoughts and biases to a smell based on our own identity. For example, in the seventeenth century it was fashionable to use the substance ‘civet’ as a perfume, but now its smell often elicits reactions of disgust for its faecal odour.



[Civet cat \(Viverra\)](#), Anselm Boëtius de Boodt, 1596 - 1610, brush in watercolours and opaque paint, raised with opaque white, handwriting in pen in brown, single lines in pencil, h 155mm x w 240m. Free of Rights. Photo courtesy of the Rijksmuseum, Amsterdam, the Netherlands.



HOW TO FIND OLFACTORY INFORMATION IN DIGITAL COLLECTIONS?

EXPLORATORY TOOLS

A number of resources, including the [Odeuropa Smell Explorer](#), the [Odeuropa Encyclopaedia](#), and [Iconclass](#) can be used to supplement your own resources. Inspiration can also be drawn from the research already produced by smell scholars which can be accessed via the [Past Scent Bibliography](#). Smell is a sense that often operates by linking things together. Examining your collections through your nose rather than your eyes can reveal unexpected connections. Exploring these links that jump across genre, time or space is what makes smell such a fascinating tool for storytelling.

How do you find these characters in your collections to begin to make the links in the chain of your olfactory story? Here we make some suggestions about how to search your own collections and how to contextualise them with further resources. There are different tricks and tools that can help you find olfactory narratives within your collections. Below we will offer more details about different methods and tools you can put into practice.

~ KEYWORD SEARCHING ~

Sometimes finding olfactory stories can be as simple as keyword searching within your own digital collections and catalogues. Successful searching is about knowing which objects or materials you need to search for which can be difficult because many are not familiar with olfactory vocabularies. As part of Odeuropa, we put together a list of helpful olfactory related keywords in six different languages: Dutch, English, French, Latin, Italian, Slovenian. Since olfactory vocabularies are rarely categorised, it is best to search for these terms in the 'free search' field.


See below for a few examples of unique olfactory keywords to get you started. For a more extensive list, see *Resource Olfactory Keywords* ([OST Resource 2](#)):

	Noun	Adjective	Verb	Objects
1	odour, odor, odours, odors	stinking	deodorised, deodorized	snuff
2	stench	reeking	fumigate	tobacco
3	reek	whiffy	censing	incense
4	pong	fetid	snuffing	bottle or flask
5	nosegay	pungent	outsmell	gloves
6	posy	balsamic	bestench	pomander

~ ODEUROPA SMELL EXPLORER ~

The *Odeuropa Smell Explorer* is also a great source of historical olfactory information. This tool allows you to explore a wide range of smell-related items in historical images and references to smelling in historical texts published in English, Dutch, German, French, Italian, Slovenian, and Latin. You can search the database by keyword and other parameters or you can browse specific smell sources, odour carriers, and fragrant spaces that are relevant to your collections. For each of these you can view useful data such as word clouds displaying the most common terms used to describe smells, or timelines looking at the number of references to smells across the period 1600s to the 1920s.

~ ODEUROPA SMELL ENCYCLOPEDIA ~

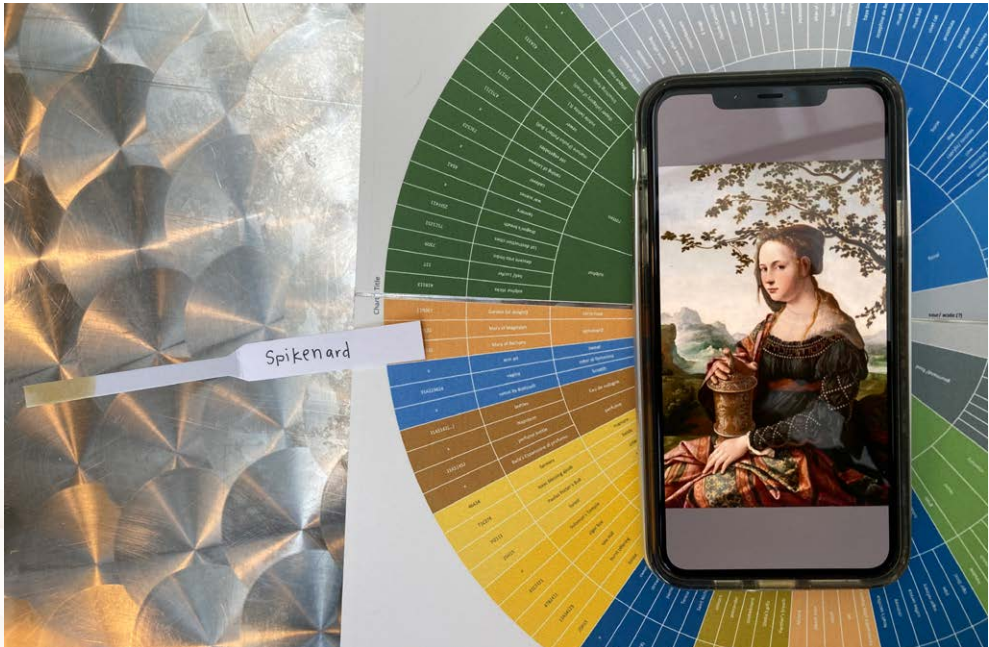
 The *Odeuropa Encyclopedia of Smell History and Heritage* offers two resources. On the one hand, it contains entries by experts on the histories of smells, noses, smellscapes, and olfactory objects. Each of these entries is split into smells, places, practices, feelings, and noses. The entries include other useful material such as historical images, chemical information, and a bibliography for further reading. On the other hand, the encyclopaedia also offers [storylines](#) that can be explored in order to inspire your own olfactory storytelling. These are built using the open-source digital storytelling tool '[Twine](#).' Both entries and storylines can be searched by users.

~ ICONCLASS ~

Iconclass is a multilingual iconographic classification system used by museums and other heritage institutions for the description and disclosure of images of artworks, book illustrations, reproductions, and photographs. Iconclass is one of the largest content classification systems within visual arts. Initially designed for historical imagery, it is now also used to create subject access to texts and to classify a wide range of images. Like the Dewey Decimal Classification system, Iconclass works with ten main divisions, which give entry to hierarchically ordered subdivisions.

~ ODOUR WHEELS ~

Odeuropa thought of experimental methods to approach digital and physical collections via odour wheels. There are various approaches to build an odour wheel which can be seen amongst different industries: perfumery, wine, cheese, and even books. Odeuropa's 'Nose-First Art Historical Odour Wheel' provides an easy and accessible way to connect art historical narratives directly with scent families and materials. This odour wheel can be printed out and used to find olfactory narratives within your own (digital) collections and if desired, public engagement. You can read more about how Sofia Collette Ehrich and Odeuropa research intern, Jenna The, used the wheel to connect scents and art works [here](#).

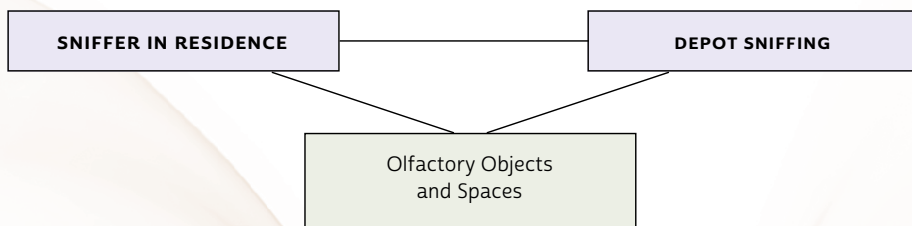


Connecting scents to Odeuropa's 'Nose-First Art Historical Odour Wheel' at Mediamatic's Aroma Lab. In this picture, Maria Magdalena, Jan van Scorel, ca. 1530 from the Rijksmuseum collection is connected with Spikenard. Photo credit Sofia Collette Ehrich.

You can print this odour wheel for your own use. See *Odeuropa's 'Nose-First Art Historical Odour Wheel'* ([OST Resource 3](#)).



HOW CAN USING A *SNIFFER IN RESIDENCE* ASSIST ACHIEVING A NOSE-FIRST PERSPECTIVE?




Having a *sniffer in residence* join your institution is a helpful way to find olfactory narratives and objects in your collection. You can invite them into your depot for a *depot sniffing session* or your digital archives to help you identify olfactory related themes in your collection. You can also invite them to lead focus groups or tours for your institution's team and visitors and shape public programming or events.

WHAT AND WHO IS A *SNIFFER IN RESIDENCE*?

Many heritage institutions and sites hold smell related objects and olfactory spaces which are often not known about or accessible. However, future olfactory events could be inspired and could greatly benefit from identifying and including such artefacts and narratives into public engagement. A sniffer in residence can help identify olfactory objects and spaces as well as provide tips for how they can be presented to the public in a way that adds value and raises awareness around them.

Sniffers in residence can include expert sniffers. For example, scent designers, academic or commercial experts (e.g. in odour pollution and air quality), coffee-graders, sommeliers, or chefs. Sniffers in residence may draw from local communities who are invested in the heritage site or collection. For example, for the [London: Port City](#) (2021-2022) exhibition at the Museum of London Docklands, London, UK, sensory consultant Tasha Marks ran a series of sniffing sessions




and interviews with local people who had worked at the docks. In museums that contain objects from Indigenous peoples or religious communities, you might seek to involve members of the communities for which they hold value in identifying and describing their smells.

WHAT IS A DEPOT SNIFFING SESSION?

If your institution has a depot, you could engage in a *depot sniffing session* either with your staff or via an expert *sniffer in residence*. As archivists and curators are more prone to clean historical objects and dispose of their scent for conservation reasons, many historical objects and spaces lack their smell. Still, certain objects might still give off a scent or hold a specific olfactory character such as books, perfume bottles, or apothecary cabinets. Due to their hands-on approach, conservators may be able to indicate interesting objects or spaces. Scent experts can imagine (or *olfactorise*) which scents might be connected to objects, spaces, and even climatological circumstances.

Before going into the depot you can also search your own collection management database using olfactory keywords. Since similar items are often placed near each other in the depot, approaching one olfactory artefact can lead you to another – sometimes you can even just follow your nose.

EXAMPLE OF A SNIFFER IN ACTION



During a depot sniffing session at the depot of the Amsterdam Museum in the Netherlands, Judith van Gent (head of collections) and Caro Verbeek first printed out a list of possibly odourant objects, and started to search for them. They were suddenly surprised by a very strong smell in the depot. When they followed their nose, it turned out that the scent originated from boxes that contained the contents of a ‘simplicia cabinet’ also known as an apothecary cabinet.



Judith van Gent sniffing an old bottle of Boldoot perfume, shaped like an orphan girl in the depot of the Amsterdam Museum, the Netherlands. Photo credit to Caro Verbeek.



An IFF perfumer sniffing the contents of a seventeenth-century miniature apothecary cabinet to determine the organic compounds at the Rijksmuseum, Amsterdam, the Netherlands. Photo courtesy of Caro Verbeek.

WHAT ARE THE BENEFITS OF USING A SNIFFER IN RESIDENCE?

After identifying olfactory related artefacts in your collection, olfactory events can highlight the function and the historical context – the noses, spaces, and practices related to them – of these objects through individual sensory impressions of their (lost) contents. Although the scented substances contained in objects are often disposed of for conservation reasons, these items can still contain perceivable scented residues. These are able to be examined by (trained) noses like scent designers or by heritage scientists using chemical analysis such as gas chromatography mass spectrometry. Sometimes the objects still emanate a distinctive scent. If unidentifiable, a sniffer in residence can source text and image material to better understand the sensory history of that object.



WHAT ARE POTENTIAL TOPICS FOR *DEPOT SNIFFING SESSIONS*?

There are a variety of artefacts that can be discovered via depot sniffing sessions. Some examples include books, manuscripts, and typical perfume or fragrant medicine jars. Leather products such as gloves, snuff boxes, wigs, dresses, pomanders, cabinet drawers, pipes, machines, cars, or botanical materials are the most likely candidates. Facilitating a depot sniffing session requires careful planning and care. They should be carried out with supervision and/or only approached after certain instructions or training.

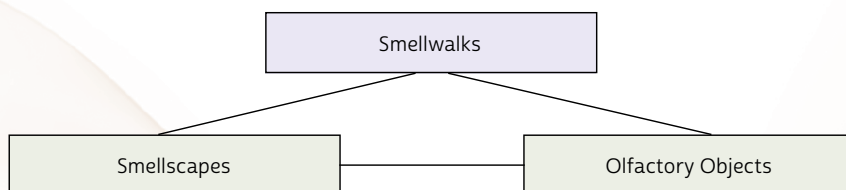




The Odeuropa team sniffing books and manuscripts in the [National and University Library Slovenia](#) and the Franciscan Monastery Library Novo Mesto. Photo credit to Inger Leemans and Sofia Collette Ehrich.

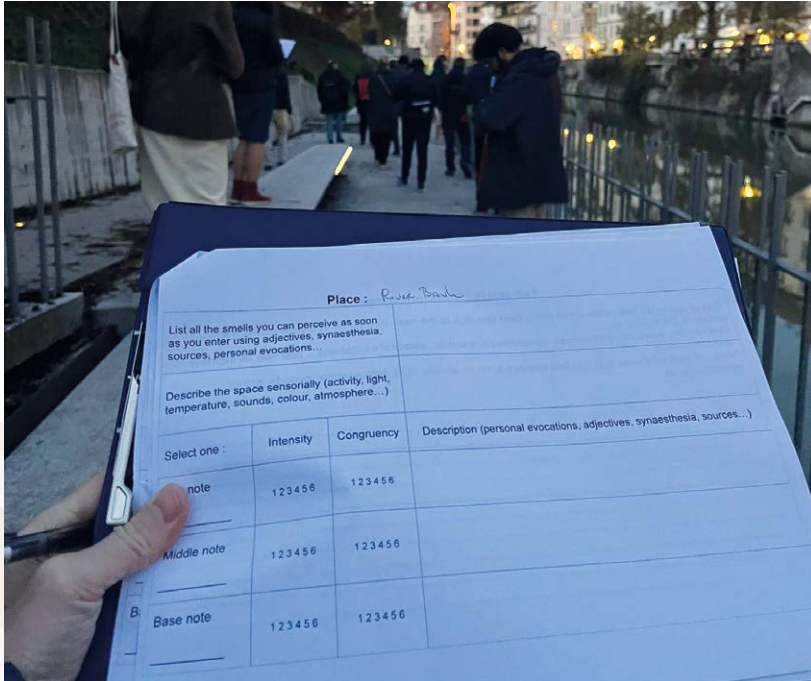


HOW CAN SMELLWALKS CAPTURE THE OLFACTORY LANDSCAPE IN AND AROUND HERITAGE INSTITUTIONS AND SITES?



What is the olfactory landscape of your heritage institute or site? Throughout time, Western museums have embraced the idea of the ‘white cube’ or that a gallery should be a quiet space where visitors are not distracted from the visual art. This idea supports limited engagement within the space and considers multisensory techniques as disturbances rather than opportunities. However, exploring certain spaces of heritage institutions can encourage a nose-first perspective with little intrusion to the institution’s environment and the people and collection items within.

Many heritage institutions and sites hold unique smellscape: rare book rooms, archeological sites, old castles and houses, and natural history museum cabinets. These spaces can be used as an asset for public engagement when opened up for smellwalks. Smellwalking not only enables you to map the smellscape of your institute, but also invites collaboration by engaging both staff and visitors in the process. With minimal equipment but careful preparation, a smellwalk can be a fun and easy way to invite visitors to approach your collection through a nose-first perspective while also offering them a unique experience. Smellwalk experts Victoria-Anne Michel and Kate McLean contributed their knowledge to this chapter so you too can start smellwalking in your own heritage institution.



Smellwalk form used by a participant on a smellwalk carried out by Victoria-Anne Michel in Ljubljana, Slovenia. Photo credit Marieke van Erp.

WHAT IS A SMELLWALK?

A smellwalk is a sensory method which investigates the human perception of smells within any given environment, especially within the fields of urban planning, art and design, history, and ethnography. It is used to determine what a place smells like and can also be used to investigate the influences of smells on the people perceiving them. During a smellwalk, it is important that participants focus on their sense of smell as their primary sense of knowledge and are encouraged to report their sensory experiences through written and/or oral form. When used as an exploratory method in heritage institutes, participatory smellwalks done in groups are most effective.

In this chapter we separate the process of conducting a smellwalk into what should be done before, during, and after. Organising a smellwalk requires deciding on the aims of your smellwalk, getting to know the location and gathering participants. The guidelines are meant to provide you with informative and detailed tips from which you can choose and adapt to your own needs.

BEFORE THE SMELLWALK

~ DECIDE ON THE GOAL ~

Before going on a smellwalk, you should decide on your goals. Why do you want to conduct a smellwalk and what do you want to get out of it? As a heritage institution, you can use smellwalks to help participants experience the space or the collection in a new way or raise awareness around the importance of the sense of smell when engaging with your collection. Do you want to collect data from the participants during the smellwalk? If so, what kind of data do you want to collect: written, oral, etc.? Why do you want to collect that data and do you have an end-goal?

~ REFLECT ON THE FUNDAMENTALS ~

Where will you conduct the smellwalk and why? How many participants do you want? How many smellwalks do you want to conduct? Do you want participants to interact with each other throughout the duration of the smellwalk or would you rather them keep their comments and reflections for the end?

~ DECIDE ON A SMELLWALK LOCATION ~

When you conduct a smellwalk, you may want to explore a specific location which requires permission to enter or explore. As a heritage institution yourself, it may be contacting colleagues within your own institution to ensure accessibility to certain rooms. Communication with the community can be helpful throughout the process. Establish contact with the people who know, work, or live in the place you want to explore through smellwalking to ease communication and to advertise the smellwalk.

~ GATHERING SMELLWALK PARTICIPANTS ~

Keep the smellwalk group under 12 participants. Larger groups can complicate keeping everyone involved and engaged. You can offer advance registration, either through an online platform or by email. Collecting last minute participants is also possible by communicating the smellwalk on location in the day(s) and hour(s) before. Do consider how participation of these individuals may affect your intended outcome. Establishing your smellwalk group may also include advertisements on your institution's social media networks and preparing press texts and images in advance. An example of a smellwalk advertisement for a smellwalk led at the Museum Ulm, Germany, by Victoria-Anne Michel below:

What does the Museum Ulm smell like?

Train your nose, smellwalk in the museum and inform Victoria-Anne Miche's PhD research within the Odeuropa project. You will be guided around for an hour and a half throughout the museum and will be asked to report about what you smell in a form. Thus, your participation, words and observations will help to draw the museum's diverse smellscapes!

Disclaimer: if you worry about not having 'enough nose' or 'the right words,' be reassured: the researcher and the form are there to guide you in the process of describing your olfactory impressions. Plus: it is your words that have value for this investigation – we are not searching for expert vocabularies but for personal reflections.

Entrance to the museum will be free for all smellwalk participants. The smellwalk host will speak English, but you can write in the language you are most comfortable in. Please bring along a bottle of water and do not wear perfume or other scented products.

Looking forward to smellwalking with you!



(Left and right) Smellwalk participants filling out smellwalk documentation forms for a smellwalk led by Victoria-Anne Michel at Museum Ulm in Germany. Photo credit to Victoria-Anne Michel.

~ PREPARING PRACTICALLY AND MENTALLY FOR THE SMELLWALK

Preparing practically for a smellwalk requires both a good understanding of the location and a readiness for the smellwalk path and participant experience. It is helpful to have a basic understanding of the main characteristics of where the smellwalk takes place and prepare a route in advance. This may mean the location's history, the current function of the location, and the activities that happen there. For your smellwalk, you will need to bring water-resistant pens, pencils, clipboards, and colour markers. Preparing mentally for a smellwalk is also important. It is important to trust in yourself, especially because the smellwalk is a novel method. You must believe in what you are doing while keeping an open, iterative and experimental approach. It is helpful to prepare a short text about why you are conducting a smellwalk and how you want to do it.

~ SMELLWALK DOCUMENTATION ~

There are two examples of smellwalk form templates that you can use. The forms created by Victoria-Anne Michel and Kate McLean offer two different approaches to collecting data from participants, while both share a similar process of describing smell reflections first, and analysing second. McLean's Smellfie Kit is more oriented towards data collection for subsequent visual representation, such as smellmaps. Michel's smellwalk template is more geared towards verbatim collection of smells in the form of memories and sensory analogies. Michel's form is text-based and includes an oral debrief at the end while McLean's integrates mini debriefs after each section. You can decide which one you prefer. Before the smellwalk, print one form per participant, so participants can write and reflect on them individually throughout the walk.

For Victoria-Anne Michel's Smell walk form, see *Smellwalk Form* ([OST Resource 4](#)). For Kate McLean's Smellwalk form (AKA the *smellfie kit*), you can download it via her website [here](#).

~ ETHICAL CLEARANCE ~

If you are conducting smellwalks to gather data for research purposes, you may have to obtain ethical clearance (academic requirement). Ethical clearance usually means that participants receive an information sheet and can decide to sign their consent or not. Make sure that you consider the time this step requires.



~ OFFER A REWARD ~


We recommend preparing a little something to give to the participants as a thank you for their participation: a sticker, a blotter dipped in an odourant, a small bottle of a fragrant composition or a raw material (essential oil, diluted resins, synthetic molecules), for instance.

DURING THE SMELLWALK

~ LAUNCH OF THE SMELLWALK ~

Once you have gathered all the participants, you can begin with a short (under 10 minutes) introductory speech about who you are, why you will conduct a smellwalk, and what will happen during the smellwalk. Check whether everyone understands what will happen. Rehearsing your speech is important to make sure that you come across as clear and concise. We have noticed that participants appear sceptical or dubious at first. We usually acknowledge this by reassuring them that these apprehensions are normal due to the fact that most of us are not used to paying attention to smells or describing them with words. A smellwalk implies adopting a nose-first approach, which can be strange and difficult given our cultural norms, but the sole process of trying is already valuable. We often say frustration is part of the smellwalk. Encourage participants to report the absences of perception as well as the difficulties in describing their perceptions.

~ LEADING THE SMELLWALK ~



While leading the smellwalk, we advise to walk at a reasonable pace to make sure participants can take in the whole environment. We also suggest that you encourage limited discussion during the smellwalk as too much conversation can greatly influence or distract people's personal experience. We believe that no matter how the smellwalk turns out, it always produces value for the participants and yourself. Be ready and open for spontaneous comments and happenings. Spontaneity is part of the method.

~ WRAPPING UP ~

Inform participants that the smellwalk is over, thank them for their time and contribution, and open up for reflection. We recommend asking for these reflections while participants still have their smellwalk documentation form in their hands. This makes the discussion easier as they have their comments at hand. We believe debriefs are valuable both to collect more data – individual recountings often trigger rich exchanges – and to help improve the format. At the end of the walk, and depending on the goal of your smellwalk, you can now collect the forms and distribute rewards.

AFTER THE SMELLWALK

~ REFLECT ON THE EXPERIENCE ~

Once the smellwalk is over and the participants have left, you can think together with your colleagues on how the smellwalk went and if the location and route was successful. Were your participants engaged and did they learn something new about the collection? It is helpful to write down reflections from your own experience leading the smellwalk and discuss them openly.

~ A PRESENTING SMELLWALK REFLECTIONS ~

You could use the data collected for research and/or presentation purposes. For exploration of the communal spaces of a heritage institution, you may visualise the reflections through word clouds, paintings, or poems and present them in the space for future pondering. This not only invites the public to think about the olfactory impressions of this heritage institution or site but it also captures how these places may change (olfactorily) throughout time.

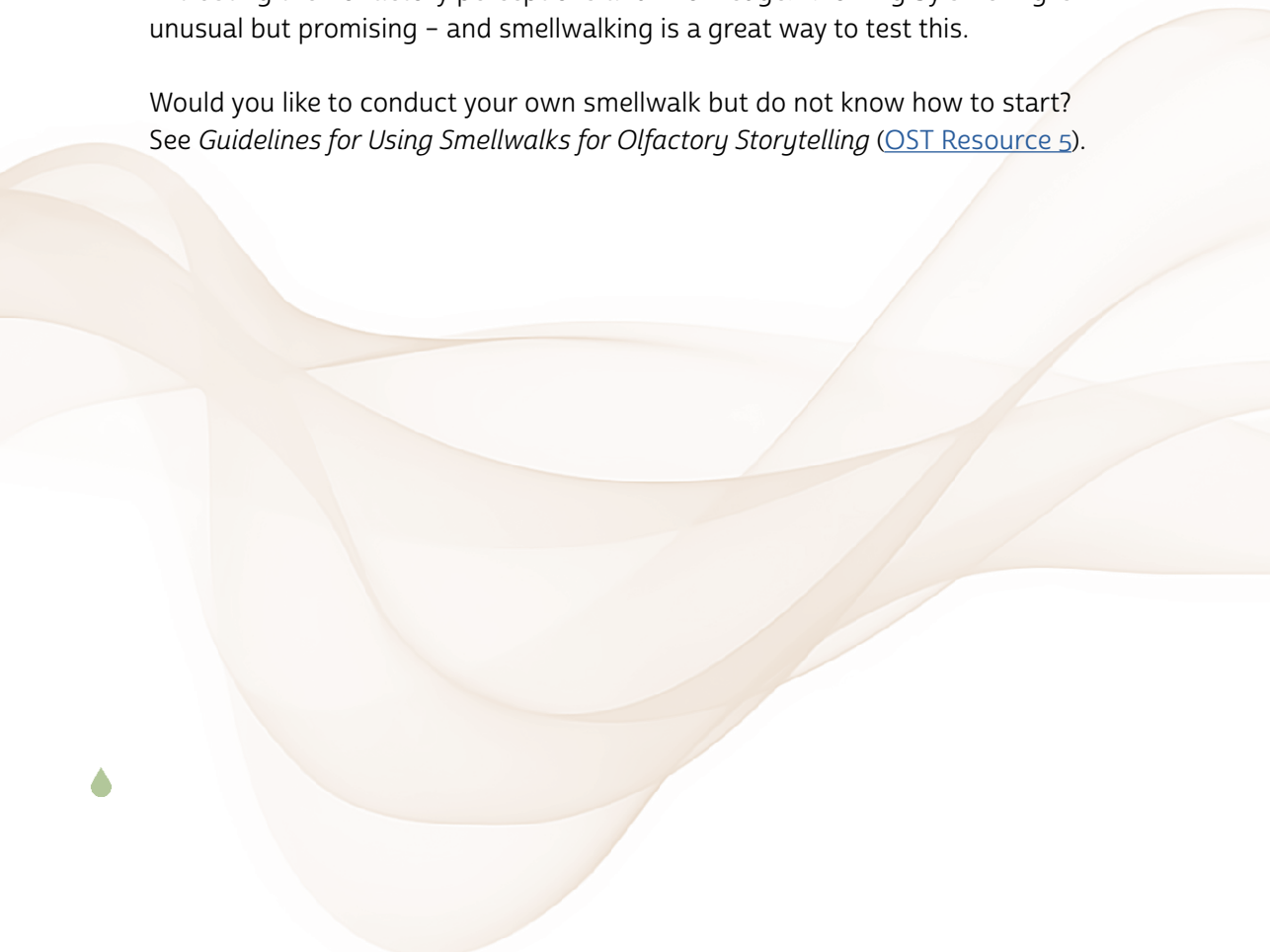




THE POWER OF SMELLWALKS

Conducting a smellwalk is a challenging, stimulating and rewarding process. Being well prepared is essential but this should not get in the way of spontaneity and improvisation. These two aspects are important to a smellwalk as they ensure a successful experience for both the participants and the leader(s). It is important to come out as well-rounded while empowering the smellwalkers in trusting their olfactory perceptions and knowledge. Knowing by smelling is unusual but promising – and smellwalking is a great way to test this.

Would you like to conduct your own smellwalk but do not know how to start? See *Guidelines for Using Smellwalks for Olfactory Storytelling* ([OST Resource 5](#)).



CASE STUDY

Reconstructing a Perfume from Historical Texts

1





The whole Geheugen van Geur team, from left to right: [Daan Sins](#) (Founder and Co-owner of [Huygens Paris](#)), [Marypierre Julien](#) (Senior Perfumer at [Givaudan](#)), [Maureen van Dam](#) ([Brein in Beeld/Vrije Universiteit](#)), [Marjolijn Bol](#) ([University of Utrecht/De Jong Akademie](#)), [Nadine Akkerman](#) ([Leiden University](#)), [Ineke Huysman](#) ([Huygens Instituut/NL-Lab](#)), [Geeske Bisschop](#) ([Royal Collections/Huygens Instituut](#)), [Hanneke Hulst](#) ([Leiden University/De Jong Akademie](#)). Photo courtesy of Ineke Huysman.

Ineke Huysman

Senior Researcher, NL-Lab/Huygens Institute, the Netherlands

WEBSITE:

<https://brievenconstantijnhuygens.net/2022/04/10/riekend-water-van-mijn-moeder/>
<https://www.hofwijck.nl/>

Many heritage institutions hold rich (digital) collections filled with historical texts that offer insights into what life was like throughout time. Researcher and scholar, [Ineke Huysman](#) spends much of her time in various archives, looking through correspondences of Dutch statesmen and women. While doing so, Huysman stumbled upon the perfume recipe book of [Constantijn Huygens](#) (1596-1687). Inspired by his perfumes, Huysman set out to recreate some of his recipes in collaboration with the [Geheugen van Geur](#) (*Memory of Scent*) team of [De Jonge Akademie](#) in Amsterdam, the Netherlands. This resulted in the project [Ode de Parfum: To My Mother](#) (1635) and was a collaboration between various academic disciplines, which shows how interdisciplinary and complex olfactory related projects can be.

This case study captures Huysman's personal thoughts and experiences from working together with the Geheugen van Geur team on the recreation of Constantijn Huygens' (1596-1687) Ode de Parfum: To My Mother (1635).

Who is 'Geheugen van Geur'?

'Geheugen van Geur' is an interdisciplinary team that contributed to the recreation of one of Constantijn Huygens' (1596-1687) perfumes during the project *Ode de Parfum: To My Mother* (1635). The team included a perfumer, a neuroscientist, an art historian, and multiple scholars. [Ineke Huysman](#), one of the scholars on the project, is a senior researcher at [NL-Lab](#) and the [Huygens Institute for the History of the Netherlands](#). Huysman is currently the coordinator for research projects around the letters of Constantijn Huygens, Johan de Witt, and Dutch and Frisian Stadtholders' Wives, in which the correspondence is being digitised and made accessible through an online database.

Why did you choose to reconstruct this particular perfume and what did you hope it would communicate?

Constantijn Huygens was a man of many trades. He was a politician, a poet, and a perfumer (amongst other things). During his lifetime, he created and wrote down over 150 perfume recipes. Huysman emphasises that she "especially wanted to create the scent

that reminded him of his mother (in Dutch 'Rieckend water van mijn moeder') to make people aware of how much scent, memory, and emotion are connected."

The aim of this collaborative project is to show both educational and historical impressions. Huysman hopes that through the reconstruction of the perfume, sniffers can gain a better understanding of Huygens' himself and historical perfumery practices.

How was the perfume recreated based on its historical text?

A key part of the research into the scent composition was using authentic distillation methods which Huygens would have used. When recreating the original scent by hand, Huysman and the rest of the team were careful to follow Huygens's recipe as closely as possible, by for example using the steam distillation method or by using the plants from his garden in his country house [Hofwijck](#), which is still accessible as a museum today in Voorburg, the Netherlands.



Based on the team's research results, [Marypierre Julien](#), senior perfumer at [Givaudan](#), was able to create the final perfume.

In what ways did you invite people to engage with Huygens' perfume and history?

At the [The Huygens perfumery](#) exhibit at his [Hofwijck](#) country house in April 2022, the Geheugen van Geur team helped create several ways to engage with the historical and sensory content of the project. There was a designated table where visitors could experience the scent as a spray as well as interact with the raw materials from the recipe like nutmeg, cinnamon, and lavender. Additionally, the perfume was commemorated as a candle created by the French apothecary, [Huygens Paris](#), which the public was able to buy on site or online. This helped spread the word about the project even further.

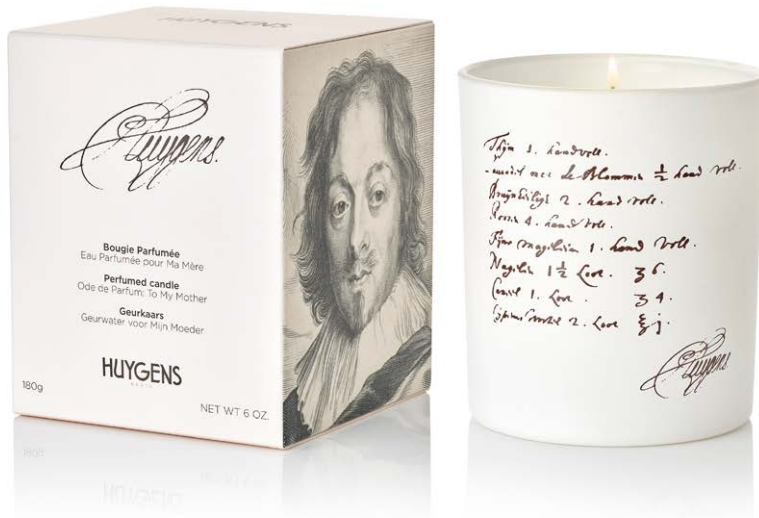
Alongside the exhibition and the candle, the project is explained on the Making Scents of the Past [website](#), which features a [video](#) detailing the process. Communicating the project through various informative outputs, like a video, a website, and an exhibition, is important to explain and showcase the depth and versatility of the conducted olfactory research, which can be more difficult to grasp for the general public. These resources are helpful as they inform audiences about the goals and process of the project through audiovisual material.



The Huygens perfumery exhibit at Huygens' Hofwijck. Photo courtesy of Ineke Huysman.

In your experience, how does engagement with smells contribute to worthwhile storytelling in heritage institutions?

It is when history comes alive – so to speak – by involving scent. For most people, smell is something so essential, everyone is interested in it. Even those who may have nothing to do with history can be stimulated in new ways and take interest.



The candle of Huygens' *To My Mother* perfume with the fragrance by Marypierre Julien. The candle was created by Huygens Paris and is sold on [their website](#). Photo credit to Antoine Kralik.

CASE STUDY



Olfactory Storytelling Used for Visitor Access and Education Design

2





Case Study

Photo credit Filip Wolak.



Marie Clapot

*Sensory Museologist and Educator, The [Metropolitan Museum of Art](https://www.metmuseum.org/),
New York City, USA*

WEBSITE:

<https://www.metmuseum.org/>

Sensory methods can be used in heritage spaces for various reasons. Sometimes to heighten immersivity, connect visitors with new and hidden narratives or to increase memory. However, the inclusion of multisensory engagement can also create a more inclusive environment for those with disabilities. The ‘white cube,’ in which heritage spaces are often classified, can be non-inclusive for many visitors. For Marie Clapot, curating with scent has been a source of creativity and inspiration for making the [Metropolitan Museum of Art](https://www.metmuseum.org/) an inclusive place for all.

Who is Marie Clapot?

[Marie Clapot](#) is a sensory museologist, disability justice advocate, and associate museum educator for accessibility at the Metropolitan Museum of Art in New York City, USA. She crafts sensory-based programming, including olfactory events for disabled and non-disabled visitors and implements museum-wide strategies to embed olfactory practices in interpretation.

How is the Met working towards creating more accessible environments?

Clapot shared with us that curating sensory experiences to connect disabled visitors to art has been a hallmark of The Met programming for decades. They employ several sensory-based strategies, mainly focussed on touch, movement and sound, to connect the visitor (e.g. disabled people) with inherent sensory dimensions of artworks. For Clapot, working with scent provides a new opportunity to engage visitors with art through the senses, gaining a different knowledge perspective. For her, this is through the historical context of the work and its materiality.

Marie Clapot's thoughts on using olfactory storytelling to expand modes of curation for accessibility efforts:

#1. "Olfaction has a direct pathway to the limbic system or the human memory and emotional processing centre. This makes it a powerful tool to bypass language. When working with visitors who are non-verbal or speak another language, scent can act as a mode of communication in and of itself."

#2. "When we lead an olfactory experience for participants who are blind or partially sighted, we also use verbal descriptions as a process of organising and editing the information that we take in visually. That combination of cross-modal engagement, scent, and description can enrich the exploration and description process by increasing focus as well as bringing language associations across the senses."

#3. "When utilising scent as a means of access, I would recommend anyone to be intentional in designing the olfactory experience keeping in mind that each sense provides us with specific information, meaning olfaction is not a substitute for vision nor touch. If working with blind visitors for example, other modalities like touch and description would also be necessary to optimise access to the work."

#4. “Our focus is often on developing educational programmes for disabled people, but these sensory programmes are also beneficial to a wide variety of audiences including, youth, teens, families, adults, and educators.”

Marie Clapot’s thoughts on how to safely present scents and choose topics for the use of olfactory storytelling, curation and design:

The choice of smell distribution is very important and focusses on three main principles. Firstly, Clapot feels that visitors should be able to preserve their agency while smelling – meaning that they can decide on when and for how long they are exposed to the scent. Secondly, she always aims for visitors to have an optimal smelling experience while also controlling the spread of scent into other galleries or spaces. Lastly, versatility is important. The use of blotters and raw materials (ex. resins, incense woods, fruits, flowers, etc.) is most attractive since it has little production time and is affordable.

In terms of ensuring a safe experience for the heritage institution’s staff, visitors, and spaces, Clapot recommends retaining open communication between all departments. The conservation, curatorial and scientific research departments can assist with determining safety protocols for the works of art, staff, and visitors, as well as to receive guidance on resources about the objects. She also recommends including disclaimers or signs that well inform visitors when a programme or an exhibition includes scents.



Participant of a workshop for educators at the Met sniffing a blotter. 2015. Photo courtesy of Marie Clapot.

She emphasises that it is not just the presentation and safety that is a key part of olfactory storytelling but also the subjects presented. When choosing topics of olfactory storytelling, she says that “the choices for olfactory storytelling are informed and guided by our collection and the exhibition programmes of the museum itself. We look at these exhibition topics and see if there is a link with or an angle available of olfactory storytelling. This could be through specific objects, but also relate to the wider theme of the exhibition.” A good example for this is the public programming around the Met’s exhibition in 2019 titled *The Tale of Genji: A Japanese Classic Illuminated*.

The [Tale of Genji: A Japanese Classic Illuminated](#), focussed on the artistic tradition inspired by Japan’s most celebrated work of literature, *The Tale of Genji*. It highlighted through various [objects](#) a little-known history of the tale which is its connection to *Kodo*, or incense appreciation and preparation. *The Tale of Genji* literature was the basis for ‘Genji-ko,’ a game involving incense. In short, the game is centred around five different types of incense which players are tasked to distinguish by their fragrance. Clapot led two Genji-ko sessions at the Met: one for adults and another for multigenerational audiences during a programme called [Family Afternoons](#).



A family participating in the ‘Genji-ko’ incense game at a Met Family Afternoon, 2019. Photo Courtesy of Marie Clapot.

Why Marie Clapot believes that olfactory storytelling contributes to worthwhile storytelling in heritage institutions:

- #1. “It provides visitors with more choices for how to experience the museum, and offers a new way to connect with works of art.”
- #2. “It can be a conduit to accessing knowledge as well as a delightful way to learn about art history.”
- #3. “Olfactory storytelling is at the centre of diverse artistic explorations and cross-disciplinary partnerships. It is a powerful tool in fostering meaningful conversation amongst staff, visitors, and external contractors.”

#4. “Scent is an important medium to incorporate into the public space as smelling encourages us to slow down and spend more time in front of an artwork. More than the other senses, smell simultaneously brings you into the moment and breaks down boundaries of time and space by recalling past memories and emotions.”

Marie Clapot’s advice for starting your own olfactory events:

#1. “When utilising scent as a means of storytelling, I recommend to be intentional when designing the olfactory experience and to keep in mind that each sense provides us with specific information – olfaction is not a substitute for the other senses.”

#2. “It is crucial to think through what added value(s) the scent will bring: does it support the exploration and understanding of the work of art, should it be historical, aesthetic, etc., and is the use of scent appropriate for your targeted audience?”

#3. “Tuning into senses other than vision does not necessarily come easily to us. To assist this process, I often start sensory tours with a meditative exercise encouraging participants to bring awareness to their body and their senses. Specific to olfactory storytelling, I remind participants that the point of engagement is not to guess what specific scents are, but to be curious about it.”

#4. “Keep in mind that smell experiences – conscious and unconscious – have a memorable impact on our psyche. I have experienced first-hand how scents can trigger memories that we did not know we had. This raises the challenge of smell as a medium. Difficult memories could be triggered and be dysregulating for some, potentially creating distress and other painful emotions, impacting the visitor’s museum visit.”

CREATING A HERITAGE SCENT





Now that you are equipped with the tools and information that you need in order to seek olfactory narratives within your own (digital) collection, **how do you interpret that material into scented material safely and efficiently?** Of course, a crucial part of any olfactory event are the smells themselves. However, acquiring and developing fragrant raw materials and smell compositions takes specific knowledge, research, and planning – especially when it is the first time your institution engages with olfactory storytelling.

This section covers two main parts of the heritage scent development process. Firstly, we define what a heritage scent is and how to identify and classify them. Secondly, we outline methods for how to acquire, develop, and evaluate heritage scents. These processes often require collaboration between different types of people (curators, scholars, scent designers), which can raise challenges in workflow. To assist and streamline these processes, we provide details and instructions for using helpful and informative worksheets.

CHAPTER 1	CHAPTER 2	CHAPTER 3	CHAPTER 4	CHAPTER 5
What are heritage scents?	How to acquire fragrant materials?	Considerations for using malodours for olfactory storytelling.	How to develop a heritage scent with a scent designer?	How to evaluate heritage scents?
In this chapter we explain what heritage scents are and how you can choose between different types of heritage scent representations.	This chapter will help you better understand what types of fragrant materials can be used and how to acquire them.	Heritage scenting consultant Liam Findlay discusses how olfactory storytelling with malodours can be a beneficial tool in heritage environments.	This chapter provides information about how to create a heritage scent with a scent designer, from beginning to end.	This chapter helps you evaluate the developed heritage scents: do they narrate the story you intended?

Odeuropa researcher Inger Leemans smelling spices in the historic apothecary Jacob Hooij in Amsterdam, Netherlands. Photo credit Sofia Collette Ehrich.



WHAT ARE HERITAGE SCENTS?

What are heritage scents? In section 1, we focussed on detecting narratives that can be explored for the use of olfactory storytelling. These narratives may employ scents which were or are significant to a specific culture and that may have been depicted or described in images and texts. Many heritage scents capture fleeting concepts, like historical smellscape or practices. How can we bring heritage smells back to life and use them as a tool of public engagement? In this chapter, we outline the different types of heritage scent creations that can be used for olfactory storytelling.

All heritage scent representations – whether reconstructions or recreations of historical recipes – are *interpretations*. Therefore, we suggest documenting all the steps taken during the creation process. This documentation can later be used to decide how that creation is presented to the public.

TYPES OF HERITAGE SCENT CREATIONS

We propose the following classification scheme for heritage scents developed for the use of olfactory storytelling. Note that all three types should be treated and communicated as interpretations for authenticity purposes.

~ MATERIALLY INFORMED RECONSTRUCTION ~

Many odourants that exist from the past are still sniffable in their original form. Materially informed reconstructions start from a physical object or space which can be smelled (on site or perhaps in your depot), considered, and potentially evaluated throughout the development process of the smell interpretation. Creations can be informed via a trained nose (e.g. perfumer) and/or GCMS analysis. Examples may include single ingredients with cultural significance like historical resins, scented toys, or residue of medicinal materials in an apothecary cabinet, or compositions like famous perfumes or the smellscape of a rare book room.



~ HISTORICALLY INFORMED INTERPRETATION ~

Historically informed interpretations do not *need* to start from a material but rather are informed via a historical source (e.g. oral history, article, household recipe book). These can result in both object related smells and environmental smells and a scent designer can help to interpret and represent certain olfactory clues. Those who create these interpretations must keep in mind that due to the evolution of olfactory materials and the olfactory imagination of the scent designer, authenticity should be treated on a scale. The goal is to remain as historically accurate as possible.


~ ARTISTIC TRANSLATION ~

Works of art, historical artefacts, and environments can be the starting point for more artistic smell creations. The goal, in this case, is not to be historically accurate or to convey a historical sensation, but to draw the attention to certain qualities of objects and artefacts. For example a colour, a material, a general atmosphere, a mood, etc. The scent designer can have more freedom in this case, but the curator must clearly communicate the aspects of emphasis.

SUBCATEGORIES

The following subcategories can fall under each of the above types.


~ SINGLE INGREDIENT REPRESENTATION VS. SMELL COMPOSITION ~



Single ingredient representations are for (historical) smell narratives that can be told via one ingredient or essential oil. Due to their simplicity and familiarity, they can have a high impact on visitors and are easily accessible for museums. Smell compositions are those which represent (historical) smell narratives via a mixture of multiple ingredients together.

~ MALODOURS VS. FRAGRANCE ~

Defining what is malodourous (foul smelling) versus fragrant is challenging due to the dependence on cultural backgrounds, individual preferences, and context. Malodours can raise negative reactions in participants like disgust, however, foul as well as fragrant smells are part of cultural history and can enhance historical connections and add to the theatricality and overall emotional response to storytelling. Based on research, storytelling with a balance of both malodours and fragrances can be effective. However, we recommend that when presenting smells for the use of olfactory storytelling, a malodour is not the concluding or only smell.





Olfactory materials set up for the filming of the Odeuropa project on the BBC Travel Show in 2022. Photo credit to Sofia Collette Ehrich.

EXAMPLE: CURATING WITH MALODOURS

A malodourous curatorial challenge came from the [Whitechapel Fatberg](#) – a gigantic mass of wastewater grease, put on display by the Museum of London, UK, in 2018. Because of the health threats, the fatberg smell was not exposed to the public. The only nose witnesses to the stench are the sewer labourers who dug it up, and the curators of the museum. They report how after the curatorial process of drying the fatberg, the smell turned from active sewer to damp basement. The story shows how the curation of historical objects is often not conducted with the conservation of smells in mind. It also indicates that malodours, although they have a high significance for the past, are even more of a challenge to feed into the loop of historical learning.



Odeuropa team member, Sofia Collette Ehrich preparing blotters. Photo credit to Marieke van Erp.

HOW TO ACQUIRE FRAGRANT MATERIAL?

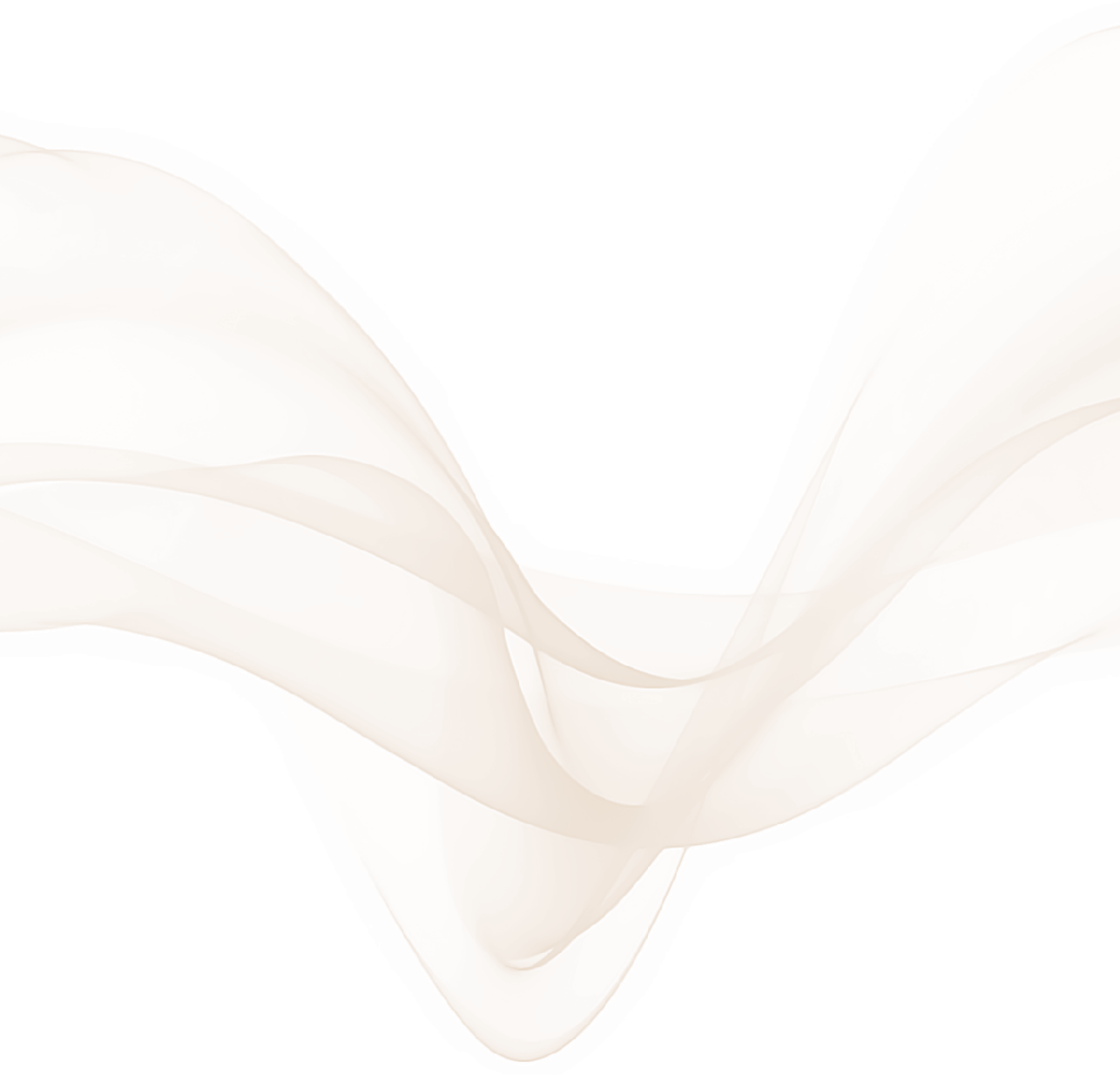
Acquiring fragrant materials for the use of olfactory storytelling can fall on a scale of simple to more complicated. In many cases topics of olfactory significance can be narrated through single ingredients and this has become a popular practice in heritage institutions. For example, in the exhibition, [Asia in Amsterdam. Luxury in the Golden Age](#) (2015-2016) the Rijksmuseum presented nutmeg, cloves and cinnamon to narrate the development of global expansion. Odeuropa's [Follow Your Nose! A Guided Tour with Smell](#) (2022) in collaboration with Museum Ulm used the raw materials of frankincense and myrrh to narrate one of their paintings depicting the biblical scene of the Adoration of the Magi. Myrrh was also presented in [Fleeting – Scents in Colour](#) (2021) at the Mauritshuis, the Netherlands, to discuss the bitterness of Christ's fate, as was ambergris – in connection with an engraving of a beached sperm whale.

Raw materials – essential oils, herbs, and resins – can be ordered (online) via drug stores, health shops or aromatherapy websites. However, it is important to note the quality and availability of materials. For example, some types of essential oils are cultivated for their fragrant intensity and in many countries animal-based odourants such as civet, ambergris, musk, and castoreum, are not for sale anymore. Basic research and expertise may be required and it is important to consult a scent designer when you are unsure.

TYPES OF MATERIALS

Scents used for olfactory storytelling can come in different forms and material types. The form of the material depends on how the scent is presented for a particular olfactory event. Definitions and examples of use are shown below:

MATERIAL TYPE	DESCRIPTION	EXAMPLES OF USE
Alcohol-Diluted	Typically 1-3% odour material and +/- 95% alcohol, alcohol diluted materials is typical in the fragrance industry. Essential oils can also be diluted in alcohol.	Alcohol-diluted olfactory material is used in various ways but mainly in small glass (amber) bottles for the dipping of blotters or (glass) spray bottles to use on hand-fans.
Pure (Perfume) Oil, Essential Oil, or Extracts	Pure oil is a material that is not diluted. Due to their high concentration, it is important to handle them with care.	Pure oils can be used for smell presentation techniques that require dry diffusion (ex. handheld dry diffusion).
Micro-encapsulated Material	Micro-encapsulation is a protective or preservation process an olfactory material can go through. It creates a highly concentrated and viscous liquid.	This material is necessary for the creation of Scratch and Sniff or Rub and Sniff technology.
Dry, Aromatic Materials	Materials with inherent olfactory properties (ex. resins, wood and seeds).	These materials can be used in a variety of olfactory events such as workshops, presentations, and educational programmes. Note: take care that these materials are dry and clean. Inform users of any potential allergens.





AromaPrime
Aroma by Design

Photo courtesy
of Liam R. Findlay.

CONSIDERATIONS FOR USING MALODOURS IN OLFACTORY STORYTELLING

The following section was written by Liam R. Findlay, heritage scenting consultant and manager at [AromaPrime](#), which has been providing historical scenting for museums since 1973. His roles involve advising on effective scent application methods, and also overseeing the development of historical aromas. Findlay's experience designing educational interpretation, including interactive signage, immersive theatre, and historical escape rooms, informs his work for AromaPrime. Through his recreational project [The Smell of Immersion](#), Findlay studies the uses and implications of scents in themed visitor attractions.

SETTING THE STAGE FOR MALODOURS

Unpleasant smells can allow for a more striking and memorable learning experience. For example, in the [Imperial War Museum's mock trench coat from the World War I exhibition](#) (1990-2013), a smellscape of cordite, toxic fumes, vomit, and urine sparked profound feelings of empathy in the visitors, for the soldiers who had inhaled these ghastly flavours in the past. Meanwhile, in the family-focussed exhibition [Flushed with Pride](#) (2002) at the [Gladstone Pottery Museum](#), UK, the recreated stink of nineteenth-century toilets led to engagement, as visitors were able to dare each other to take a sniff, learning something about historical hygiene and diets along the way. Malodours can also function as an instrument for crowd control in museums. In my capacity as a heritage scenting consultant, I have worked with a castle where a malodour was diffused with the hidden function of preventing crowding in a narrow walkway.

CONTROLLING MALODOURS

Despite the many benefits, curators may be concerned about how to control the spread of malodours at their venue. The solution largely depends on the format of the exhibition, and whether the diffusion technique is ambient (spreading a smell through the air) or limited (e.g. contained below a lid or within an interactive pump).

[Jorvik Viking Centre](#) in York, UK, is well-known for its ambient diffusion. Here, visitors are taken through an odiferous, life-size Viking village, where aroma oils are diffused from automated machines. The Viking village is in a room separated from the rest of the museum, and it is well ventilated, ensuring the odours do not intrude where they are not welcome. Modern scent machines allow the user to control the intensity and regularity of diffusion, meaning odour potency can be adjusted.

If ambient diffusion happens in a space open to the rest of the venue, dry diffusion is another recommended approach. This involves the use of a scented object, rather than diffusing oils. Several National Trust sites have placed Aroma Blocks in their rooms. An [Aroma Block](#) is an absorbent scented object, placed within a lidded case. The smell tends not to spread much further than three metres.



A photograph (c. 2000) of AromaPrime diffuser models that were used by Jorvik Viking Centre from its opening in 1984. Photo courtesy of Liam R. Findlay.



An open Aroma Block case hidden among a room's furnishings. Photo courtesy of Liam R. Findlay.

Venues can also try limited or contained diffusion. Madame Tussauds Vienna's exhibition [Sisi Uncovered](#) (2017) has small, labelled drawers that can be sniffed upon opening. When creating a smelly timeline for the exhibition [Two Centuries of Stink: Smell Mapping Widnes Past and Present](#) (2021), [Kate McLean](#) encased malodours inside boxes with tiny holes on top, so the smells could only be detected upon close sniffing. To explore another hands-free, Covid-safe approach in 2021, AromaPrime and the [Bolton Museum](#), UK, collaborated to create a foot-operated pump which could puff out the smell of bear faeces. The effect proved to be noticeable yet fleeting. For tours and group sessions, malodours can be limited to sample sticks, scented fans, scratch 'n' sniff cards or pocket-sized [Aroma Cubes](#), to give a few examples. Malodours are also less likely to offend when the visitor has the choice to activate them, which is where the more contained applications can be useful.



Contained diffusion method at *Two Centuries of Stink: Smell Mapping Widnes Past and Present*, curated by Kate McLean and Jade French for the Catalyst Science Discovery Centre and Museum (2021). Photo courtesy of Kate McLean.

VISITOR COMFORT

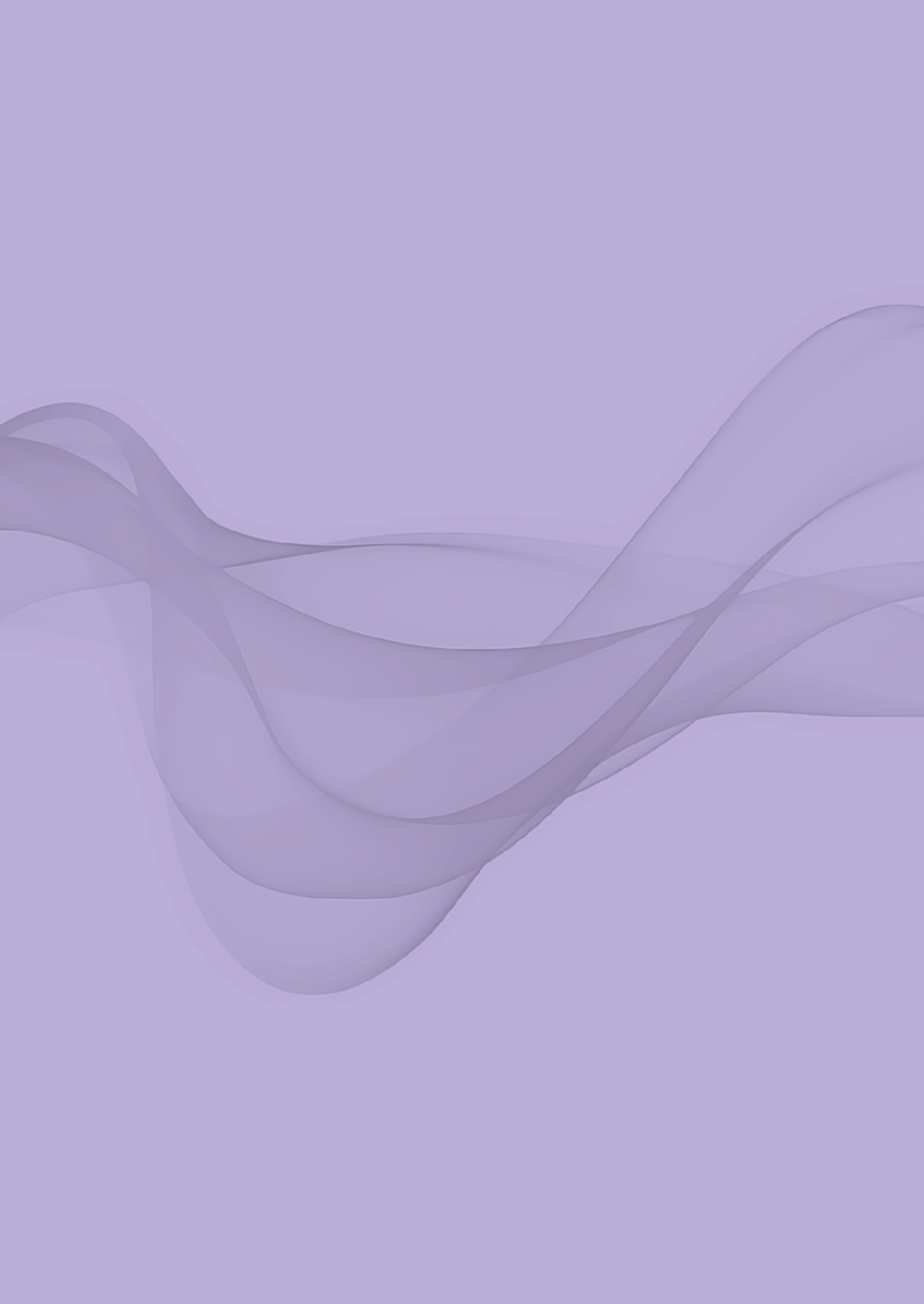
Different approaches can be taken to avoid discomfort among visitors when using malodours. Aside from the risk of making visitors feel unwell, a strong smell paired with an emotionally loaded subject matter could cause distress. It can be advantageous to test a malodour with different audiences before applying it, to gauge how the public will respond. When developing a scent to accompany the Natural History Museum's animatronic T-rex in 2001, AromaPrime first created a stench based on the rotting meat stuck between the creature's teeth. However, after testing samples, curators decided that a prehistoric swamp smell should be used instead, so visitors could experience the atmosphere without feeling overwhelmed. If a topic is sensitive, signage can also be used to prepare visitors for malodours.

In 2021, I worked with a venue whose damp, claustrophobic tunnels sometimes made visitors feel unwell. Therefore, when applying historical scents, we were conscious that they should not enhance any feelings of sickness. To overcome this concern, we applied traditionally pleasant smells to represent the malodours. For example, when paired with the setting of a house riddled with plague, the aroma of smoked fish could be perceived as a malodour, while its underlying pleasantness kept it bearable. Sometimes, having a smell surrounded by contextual cues can help communicate the idea of unpleasantness without the smell itself needing to be repulsive.

THE POWER OF MALODOURS

During the 2020 Covid-19 lockdowns, one of AromaPrime's main sources of income was the sale of malodours to visitors of historical attractions. These customers could no longer go to their favourite sites, and being able to sniff the stables from [Warwick Castle's Kingmaker exhibition](#), or the [torture chamber from The Edinburgh Dungeon](#), helped transport them back to happy days out. This phenomenon may seem surprising, but I feel it reflects the unique power of malodours as tools for engagement and memorability in learning experiences.





HOW TO DEVELOP A HERITAGE SCENT WITH A SCENT DESIGNER?

Heritage scent creations that are developed specifically for the use of olfactory storytelling differ from perfumes in that their goal is to specifically convey a historical narrative connected to heritage objects, sites or practices. Choosing and creating olfactory materials can require research, creative interpretation, and chemical analysis, or a combination of these. The work processes and classifications of scent designers also vary: olfactory artists, scent marketing bureaus, fragrance companies, flavourists, perfumers, and olfactory scenographers. It is important to keep this in mind when hiring and working with your own scent designer.

TIPS FOR WORKING WITH A SCENT DESIGNER:

- 1 Get to know your scent designer:** Different types of scent designers carry different expertise. It is helpful to know the background of the scent designer that you work with to ease communication. Perfumers are often trained to make pleasant scents so when you want to work with malodours, make sure they feel comfortable taking on this process.
- 2 Provide documentation and materials:** It is important that the scent designer has access to resources that help them create the heritage scent. This may include information about the artwork/object being interpreted, visual aids, material descriptions, and (art) historical context.
- 3 Encourage additional research:** Encourage on site visits where the scent designer can have an in-person experience of the heritage space and the artworks within. This may include the handling and smelling of objects and/or interviews with relevant individuals and communities. Evaluation and testing of the effect of the scents should be done via test tours which include diverse audiences.

- 4 **Maintain open and straightforward communication:** It is important to bring the scent designer into the olfactory event development early on and to communicate key parts of the event like number of desired smells, target audience, duration of the event, and desired level of interpretation or creative liberty.
- 5 **Safety first:** Remember to collect safety sheets for each scent as visitors may have questions regarding allergens. This documentation is also important should you want to travel with the scents or ship them for communication purposes.

USING ODEUROPA'S HERITAGE SCENT DESIGN BRIEF AND HERITAGE SCENT DEVELOPMENT REPORT

Throughout the coordination of Odeuropa's events (2020-2023) we learned that due to the interdisciplinary process of creating heritage scents, many challenges can arise. Scent development brings together scholars, curators, consultants, and scent designers, joining diverse thinkers and work processes. To assist and support following the above tips, Odeuropa created a two-part form: the *Heritage Scent Design Brief* and the *Heritage Scent Development Report*.*

~ PART 1 ~

The *Heritage Scent Design Brief* is a form to be filled out by the commissioner of the scent and outlines the necessary information for the perfumer to make that particular smell interpretation. This includes details of the project such as location, olfactory event type, and duration of the event. This form also includes (historical) background information like visual material, the official description of the interpreted artwork, intended function and olfactory relevance. Upon completion, the form should be given to the scent designer.

You can download the *Heritage Scent Design Brief* for your own use. See *Heritage Scent Design Brief* ([OST Resource 6](#)). Unsure of what content goes where? See *Heritage Scent Design Brief Example of Use* ([OST Resource 7](#)).

* The Odeuropa *Heritage Scent Design Brief* and *Heritage Scent Development Report* were developed within Odeuropa and with the help of Museum Ulm, Germany, and the perfumers at IFF led by Bernardo Fleming.

~ PART 2 ~

The *Heritage Scent Development Report* is a form to be filled out by the scent designer. It offers an opportunity to reflect on their experience of creating a heritage scent, and to describe the creation process and the final scent in their own words. The form also requires the perfumer to provide detailed information about the materials of the creation, for example the olfactory pyramid and/or the exact formula. This part is especially important, for it helps to understand how the perfumer followed the historic recipe, if provided, and it provides information that can be used to describe the heritage scent to the public.

You can download the *Heritage Scent Development Report* for your own use. See *Heritage Scent Development Report* ([OST Resource 8](#)). Unsure of what content goes where? See *Heritage Scent Development Report Example of Use* ([OST Resource 9](#)).



ESCU III

HOW TO EVALUATE HERITAGE SCENTS?

Once you develop a heritage scent, it is important that you know how to evaluate the creation and how it suits your goal. Do the scents tell the stories that you want to narrate? How will visitors react to the creations? To assist and prepare the smell evaluation process, we created the *Guidelines for Evaluating Heritage Scent Creations*, based on knowledge we gained during our own creation processes and interviews we conducted with scholars, scent designers, and curators. These guidelines provide three different schemes that can be used for evaluating heritage scents, starting from the least structured approach to the most formalised one. You can find this document in our additional resources. To assist you in the use of this document, several tips and a summary of each scheme is outlined below.

TIPS FOR EVALUATING HERITAGE SCENT CREATIONS

- **Document the process:** Make use of Odeuropa's forms: *Heritage Scent Design Brief* and *Heritage Scent Development Report*. They provide clear instructions for the scent development process. Upon receiving the *Heritage Scent Development Report* from the scent designer, the process can be evaluated – did the designers indeed follow the instructions given?
- **No nose is alike:** Form a focus group representative of your different stakeholders (e.g. curators, tour guides, technical staff, communication and inclusivity officers, and a sample selection of your visitors or audiences).
- **Remain neutral:** On the day of smell evaluations, avoid wearing highly scented products and try to keep initial thoughts about the smells to yourself to not impact another's experience.
- **Even our own noses can change:** Beware that the human sense of smell is weakest in the early morning and that different conditions can influence our perception of smell. For example, those who are pregnant may be more sensitive.

- **Sniff with intention:** You can try long slow inhalations and short sniffs for about 20 seconds. The rhythm of our sniffing will influence what you smell. Also make sure to use both nostrils as they both perceive different molecules.
- **Encourage multiple versions:** Ask the scent designer to create different versions of a scent, so you and your group can evaluate the differences.

OVERVIEW OF EVALUATION SCHEMES

We have developed a guideline for evaluating heritage scents.* You can download the guideline for your own use. See *Guidelines for Evaluating Heritage Scent Creations* ([OST Resource 10](#)).

SUMMARY OF SCHEME #1: ISOLATED EVALUATION

Evaluation scheme #1 consists of individuals smelling each heritage creation *isolated* from any contextual information and background. During this process, evaluators smell each creation and note any individual reactions and associations on paper which is then followed by a group discussion. This evaluation method helps better understand possible initial reactions visitors may have when experiencing these scents.

SUMMARY OF EVALUATION SCHEME #2: CONTEXTUALISED EVALUATION

Evaluation scheme #2 consists of individuals smelling each heritage creation *with* the scent's contextual information and background (about the intended olfactory event and the images, objects, or spaces in and around where the smell will be presented). The scheme helps check connections between the scent and its projected context, and evaluate whether the creation is convincing and understandable. A key part of this process is that the scent creations are evaluated within a context that is as close as possible to the final presentation.

SUMMARY OF EVALUATION SCHEME #3: PEER REVIEW

Evaluation scheme #3 consists of a formal and communal peer review. This review scheme for smell creations can include curators, scholars, fragrance experts, and scent designers to peer review the scent based on their own research and knowledge. This scheme includes contextual information about the scent as well as a short proforma to be filled out during the review process.

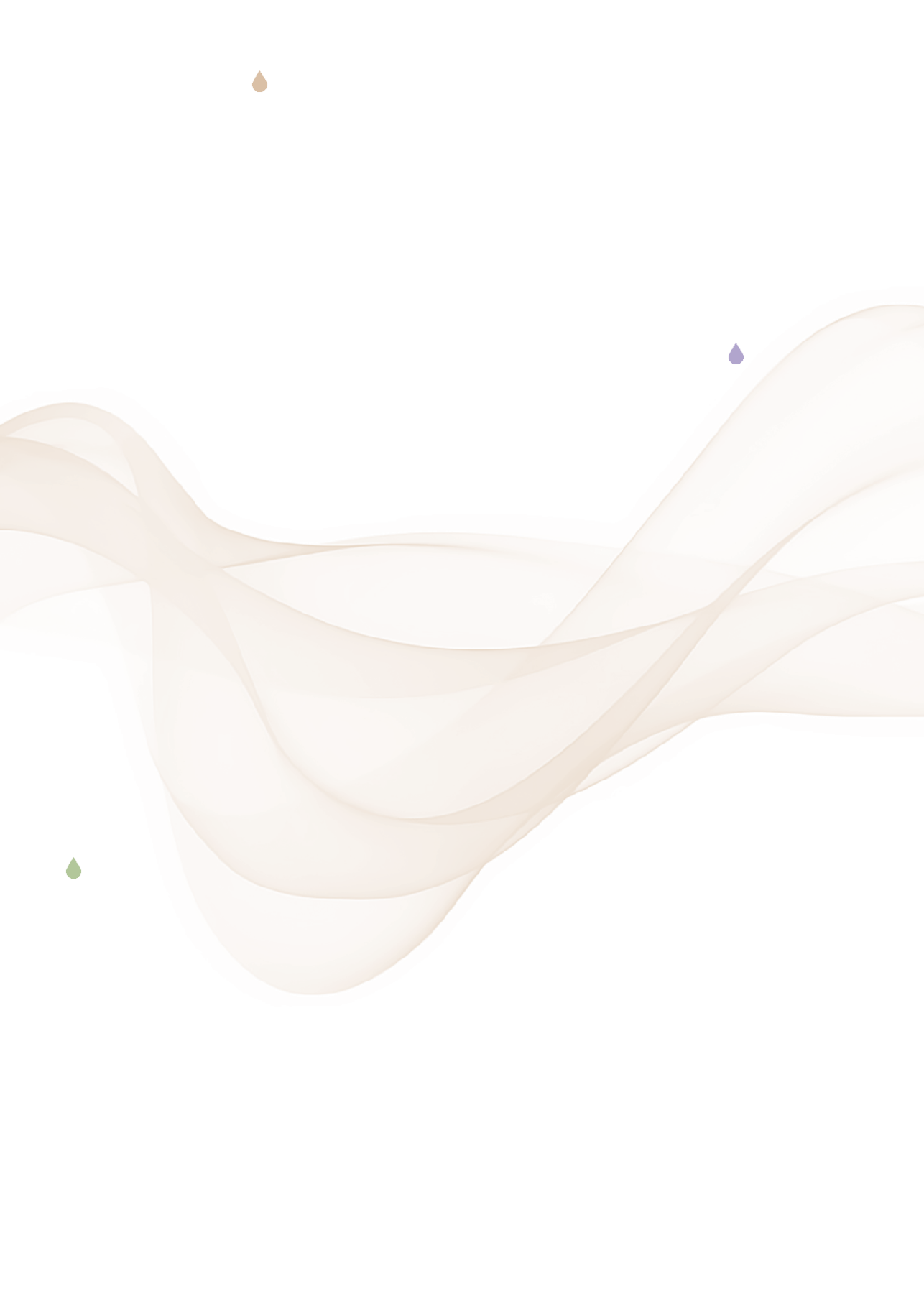
* Odeuropa's evaluation scheme received feedback from Liam R. Findlay, Kate McLean, Bernardo Fleming, and Nadjib Achaibou.



Capture of a post contextualised evaluation done with Odeuropa team members. Photo credit Sofia Collette Ehrich.



Dry handheld diffusers were mailed in small packages to reviewers as part of the peer review evaluation Odeuropa carried out for a publication for the American Historical Review Journal. You can read more about the peer review process [here](#). Photo credit Sofia Collette Ehrich.



CASE STUDY



Presenting Communal Heritage via Heritage Scents

3





Case Study

Tasha Marks with 5318008, a Scented Bronze Sculpture Commissioned for the [Being Human](#) exhibition. Photo credit to Angela Moore and courtesy of the Wellcome Collection.

Photo Courtesy of Claire Dobbin.

A V M C U R I O S I T I E S

Tasha Marks

Sensory consultant, AVM Curiosities

Claire Dobbin

Curator

WEBSITE:

<https://www.avmcuriosities.com/#/port-city>

Different heritage institutions have different themes and narratives to tell within their collections. In 2021, sensory consultant [Tasha Marks](#) and freelance museum curator [Claire Dobbin](#) worked together on the [London: Port City](#) exhibition at the [Museum of London Docklands](#) in London, UK, which highlighted the historical and cultural significance of working docks. For the area of the exhibition focussing on the twentieth century, emphasis was placed on the unique olfactory history of this area and time. For a collective and communal approach to the creation of the scents, Marks consulted oral histories from former dock workers which were selected by Dobbin and an active team of volunteers with personal connections to the area. Four smells were created to try and encapsulate the dockworkers' experiences and memories: The Warehouse, Handling Hides, The Docks, and Home (descriptions below).

This interview captures Marks' and Dobbin's personal thoughts and experiences from working together on the London: Port City exhibition. They discuss how they employed olfactory storytelling as a way of addressing and presenting communal heritage and at the same time, how they overcame challenges along the way.

Who is Tasha Marks?

Tasha Marks is a sensory consultant, scent designer and the founder of [AVM Curiosities](#). Marks has a history of working in the museum and cultural industries and created the olfactory identity for the [London: Port City](#) exhibition at the [Museum of London Docklands](#). She is an advocate of the sensory museum, and champion of food and fragrance as artistic mediums. Past projects of her's include: [creating a sculpture that emits the scent of breastmilk](#) for the [Wellcome Collection](#), recreating the [smell of the New York Tenements in 1890](#) for the [Ulster American Folk Park](#) and animating a Georgian Dining Room with [an 8-course menu of scented napkins](#) for [The National Trust](#).

Who is Claire Dobbin?

[Claire Dobbin](#) is a freelance curator, educator and interpretation specialist, who curated the *London: Port City* exhibition at the Museum of London Docklands. She is passionate about multisensory engagement, inclusive design, and the creative use of collections to engage and develop audi-

ences. Her doctoral research, recent publications, and conference contributions focus on the benefits and impact of multisensory visitor experiences.



Display of Scents of Place. Photo credit to Tasha Marks.

Can you explain what you aimed to achieve through the use of olfactory storytelling in the exhibition?

CLAIRE DOBBIN: From a visitor experience perspective, it was to provide a change in pace within the exhibition, encouraging people to slow down and reflect. Curatorially, the goal was to bring another sensory dimension

to extracts from oral histories, which helped interpret the sensory environment and lived experience of London's historic former docklands in a more immediate way. In turn, we hoped this would enable visitors to connect and engage with the content on a more personal and emotional level.

How and why did you choose to use oral histories as the inspiration for the scents and how were these histories interpreted into physical scents?

CLAIRE DOBBIN: During the content planning process, we identified the need for the docks to be interpreted as a place that was experienced – that was a way of life – that was more than just a built environment and a feat of engineering. We knew that some visitors would have lived experiences and memories of the twentieth-century working docks and we wanted to include that and attempt to start a dialogue about it in some way. We also wanted to bring the stories within the oral history to life in a way that would resonate and have impact for the widest possible audience. Olfactory storytelling provided a way to meet these objectives, which were established within our interpretation planning process.

TASHA MARKS: The creation and evaluation of the scents were based completely on the oral histories I re-

ceived from the museum. By listening to these first-hand experiences, I was able to craft the olfactory identity of the exhibition. My aim was to translate the subjects' experiences into scent. My goal was to use their words, objects, sensations, spaces, and feelings and turn them into an aromatic experience that the contemporary visitor could relate to.

What was the biggest challenge of the scent development process and how did you 'evaluate' if the scents achieved their impact?

TASHA MARKS: The biggest challenge was how to summarise 90 years of multiple people's lived experiences into a series of four smells. I had to translate individual histories into general impressions that would still do their stories justice. In the end, the four smells embraced this idea of the macro and the micro, to embody personal stories told in scent alongside atmospheric imaginings. For instance, the smell of 'Home' was based on one particular oral histories' story about a person's father's woollen coat drying on an electric fire, but it also aimed to evoke a sense of 1960s domestic life. To make sure the scent resonated with different audiences, I tested it on multiple groups including a group of volunteers whose family members had worked on the docks. When it evoked the feeling of home for them – one

even going into depth describing her grandfather's wallpaper – I knew I had got the scent right.

The Heritage Scents of the London Docklands:

The Warehouse | Wooden containers, hessian sacks, concrete floors, coffee, tea, tobacco.

Handling Hides | Animalistic, musk, leathery, flesh, skin, bone, fishy, visceral, guttural.

The Docks | Smoky, industrial, smog, fog, coal, oil, engines, cold air, marine edge, wood, watery, brine.

Home | Warm, welcoming, comfort, coat drying by the fire, smoke, fire, vanilla, tobacco, wool, wood, 1960s wallpaper.

**These scents were created by [AVM Curiosities](#) in collaboration with [Aroma Prime](#) and [CPL Aromas](#). Commissioned and curated by Claire Dobbin and the Museum of London.*

How were visitors encouraged to engage with the unscented and scented content of the exhibition?

CLAIRE DOBBIN: The smells were informed by and displayed in conjunction with extracts from the oral histories, which recalled sensory experiences of London's docks between the 1920s and 1980s. The design of the physical space, which presented olfactory and aural/audio content, also drew on the museum's photography collection. These images illustrated the different aromatic products that moved through and were stored in warehouses within the docks. Alongside the photographs were also historic samples of such products from the collection displayed. But the primary content in this section of the exhibition was always the smells and the stories that informed and inspired them.

TASHA MARKS: As this exhibition was due to run for a number of months, the distribution method needed to be low maintenance. The number of nearby historical items also meant that it would be advisable to keep airborne droplets to a minimum, so it was decided that a scent chamber, which could be opened and closed would lead to the most visitor interaction, while also keeping the scent confined. The scents were further encapsulated onto EVA beads, which can hold 30% of their weight in fragrance

London: Port City exhibition view. Photo courtesy of the Museum of London.



- this increases the surface area and allows for a slow and steady diffusion, whilst also meaning there are no pools of liquid that might lead to spillages in the exhibition. This is my preferred distribution method in general as it gives the most flexibility in display and easy maintenance throughout the exhibition cycle.

What precautions did you take to ensure a safe space for the Museum of London Dockland's staff, visitors, and collection?

TASHA MARKS: The distribution method was important here. The scent chambers kept the fragrances out of reach so there would be no skin contact possible for the general public. The hatches also allowed the attendee to choose the experience, rather than the aroma filling the space. Meanwhile, for the staff, I provided safety data sheets for all the aromas, and a maintenance manual, which had instructions on how to handle and store the scent.



Visitors engaging with the exhibition's smell stations. Photo courtesy of Museum of London.

Visitor Reflections on London: Port City:

Visitors found the exhibition engaging due to the expert usage and variety of immersive multimedia, especially the moving images, large video projections, and audio oral histories. They also praised the olfactive time capsules as being very evocative of the past, such as the scents from the port.

“The wood smell is very overpowering in a positive way, which struck me.”

There was also positive praise on the way oral histories were paired with the different smells – “just such a really powerful way of bringing up memories.”

The wooden crates and scents from the port were the highlight of families and were perceived by adults as a very clear way to engage with the younger audiences.

“It was really nice. We didn’t spend very long there, my son is 3 and has a short attention span. But he enjoyed the wooden crates and scent boxes.”



London: Port City exhibition view. Photo courtesy of Museum of London.

In your experience of collaborating on this exhibition, what was the biggest challenge of using olfactory storytelling?

CLAIRE DOBBIN: The use of olfactory storytelling is not yet an established interpretive approach – and there is not yet an established way to evaluate its impact. As a result, evidence of its benefits and why it should be used more is not yet fully tangible. It is not always easy to convince museum staff and stakeholders of the role and importance of an olfactory dimension to an exhibition. That is why Odeuropa's Olfactory Storytelling Toolkit is so important – and why more robust ways to evaluate the impact of olfactory experiences are needed. Providing tangible, generalisable evidence of why and how olfactory narrative experiences can enhance engagement and the memorability of exhibitions is the key to more being invested in for the future.

TASHA MARKS: Our experience of scent is very individual, both in what and how we smell, as well as our own associations and memories attached to it. This means when using scent as a storyteller you cannot always predict the impression on the visitor. Scent is a subjective medium, but it is also our most suggestive sense, so by curating the interpretation around the aromas, including words and imagery, we are

guiding the visitor to have the experience that we hope for them to have. Interpretation is key!

If you could offer one piece of advice to heritage professionals who want to use olfactory storytelling, what would it be?

TASHA MARKS: If you are considering scent as part of your exhibition or museum display but are unsure where to start, it can be worthwhile hiring a specialist to advise. My role on this project – as well as others – was a halfway between perfumer and curator, and as such, I work across a range of expertise to refine the sensory offering. This way of working means the sensory offering is closely tied in with the rest of the exhibition content, adding to the atmosphere and enhancing the visitor experience.

CLAIRE DOBBIN: It is essential to factor sensory storytelling in from the start, so it can inform and be an integral part of the interpretation, content, and design development. Scents are too often an add-on – an extra layer to add at the end – rather than a core curatorial and interpretive tool. For smell to be a meaningful part of the narrative experience, it needs to be given the same amount of credit (and time) as text or audiovisual interpretation provisions.

Why is it important to safeguard and showcase elements of olfactory heritage in heritage institutions?

CLAIRE DOBBIN: Smell has been underused and underexploited in museums. It is an integral part of how we experience and remember our own lives – so when you think about it – removing it from narrative experiences in museums, especially social history museums, is ludicrous. For olfactory heritage and olfactory engagement to become an integrated element of museum collections and interpretation (which I believe it should be) it needs to be identified, documented, and exhibited – all of which require new ways of working and new research. Otherwise, it will always be the exception not the rule – and effective narrative experiences that draw on the many benefits of olfactory heritage for engaging audiences and helping us understand and interpret our past will remain disappointingly few and far between.



In your experience, how does engagement with scents contribute to worthwhile storytelling in heritage institutions?

CLAIRE DOBBIN: Audiences seem to engage with smell in a more intuitive, personal, and confident way within museum spaces than they do with artworks, objects, and text. In my experience, the inherently subjective nature of smells – or at least how they are interpreted – gives people the freedom to offer comments and responses, or start conversations with less fear of being ‘wrong.’ We are so much more confident to defend our ‘taste’ and opinions related to food and smells – in terms of what we like or dislike, how they make us feel, what they remind us of, or mean to us. This is exactly how visitors should feel in museums – about the collections, narratives and spaces that are being developed and interpreted for them.

TASHA MARKS: Scent is an unparalleled educational tool and unique avenue for learning. It enables us to craft a visceral experience in the mind of the viewer and infuse a long-lasting knowledge that goes beyond the gallery walls. Fragrance can draw the visitor in, infusing their mind with an unforgettable experience – using aroma as a storyteller, to tell a micro story of a macro world.

CASE STUDY



4

In Search of Lost Scents:
Early Research in Employing Olfactory
Methods for GLAM Initiatives
(2015-2019)





Case Study

Portrait Caro Verbeek by Myra May.



Caro Verbeek

Curator of Mondrian and De Stijl, *Kunstmuseum Den Haag*, the Netherlands

WEBSITE:

<https://research.vu.nl/en/persons/caro-verbeek>

In Search of Lost Scents - Reconstructing the volatile heritage of the avant-garde was a research project carried out as part of Caro Verbeek's creative industries PhD (supervised by Inger Leemans) at the Vrije Universiteit Amsterdam. The project was a collaboration between the university and IFF (International Flavors and Fragrances) who developed the olfactory materials and compositions, and the Rijksmuseum in Amsterdam, the Netherlands, who provided a venue and helped assess the questionnaires. This project served as the inspiration for the olfactory events carried out throughout Odeuropa.

Who is Caro Verbeek?

As part of her PhD, Caro Verbeek was the curator and coordinator of the [In Search of Lost Scents](#) project at the Rijksmuseum in Amsterdam (2015-2019). Verbeek is currently the curator of Mondrian and De Stijl at the Kunstmuseum Den Haag, the Netherlands, and is an assistant professor at the [Vrije Universiteit Amsterdam](#), where she teaches her course [Knowing by Sensing](#). Additionally, she creates olfactory tours and interventions for museums. Some of Verbeek's projects include [Can You Smell Abstraction?](#) at the [Kunstmuseum Den Haag](#) (2021-present), and [The Museum of Smells](#) at the Stedelijk Museum Amsterdam (2018). Verbeek was also the co-curator of [Odorama](#) (2015-2021) which was a collection of presentations and talks focussed on sensory topics and accompanied by scents which took place at [Mediamatic](#), Amsterdam, the Netherlands.



Bernardo Flemming developing scents at the IFF lab. Photo courtesy of Caro Verbeek.

What advice would you give to GLAM professionals that want to use olfactory storytelling?

CARO VERBEEK: *You see more when you smell.* That has always been my adage. When you include smells in storytelling people won't just learn about the smells of the past but it will also alter their gaze and they will see different details, pay more attention to the overall atmosphere, the materials, and the facial expressions.

What kinds of scents were created for In Search of Lost Scents?

CARO VERBEEK: We produced 12 scents to accompany specific artworks that are on view at the Rijksmuseum. The most popular scent was modelled after Jan Willem Pieneman's painting of [The Battle of Waterloo](#) (1824). Its creation was historically informed but also based on visual cues of the painting like the weather conditions, horses, and gunpowder. The second most popular scent accompanied the Rijksmuseum's [Beuning Room](#) (c.1745). Its creation was historically informed and was created to communicate contrasts and combinations of smells within the space. The smell included resins and spices which were burned in the fireplace to fight mildew as well as some of the scents from the streets that would have entered through the room's window.



The Battle of Waterloo, Jan Willem Pieneman, 1824, oil on canvas, h 567cm x w 823cm x l 822.7cm. Free of Rights. Photo courtesy of the Rijksmuseum, Amsterdam, the Netherlands.



Room from an Amsterdam canal house, anonymous, c. 1745-c. 1748, mahogany (wood), h 460cm. Free of Rights. Photo courtesy of the Rijksmuseum, Amsterdam, the Netherlands.

The Heritage Scents of In Search of Lost Scents:

The Battle of Waterloo | [Eau de Cologne](#), gun powder, anxiety sweat, damp earth, horse, leather

The Beuning Room | Resins, mildew, fireplace, lime tree, horse, canal

**These scents were created by IFF in collaboration with the [Rijksmuseum](#) as part of In Search of Lost Scents.*

During the guided tours, how did different groups respond to the smells and the space?

CARO VERBEEK: One of the goals of the project was to better understand what adding an olfactory dimension to storytelling actually does to different target groups, like adults, children, and people of other abilities. The tour guides I trained told me that those who are usually very quiet became very talkative and that children seemed to have a much longer attention span. They noticed that participants also spent much more time in front of each artwork.



Caro Verbeek giving an olfactory tour through the Rijksmuseum, Amsterdam. Photo courtesy of Caro Verbeek.



A visually impaired individual experiencing the scent of *The Battle of Waterloo* in front of the artwork during a scent tour. Photo credit Cathelijne Denekamp.

Visitor Reflections on In Search of Lost Scents:

Visitors found the exhibition engaging and that the scents featured in the exhibition expanded their understanding about the act of seeing itself. Seeing could also be made possible through stimulating other senses. Visually impaired participants found the use of *The Battle of Waterloo* scent particularly helpful when understanding the artwork:

“Your story was like an explosion of scents rousing my mind’s nose. When finally you made us smell it, I recognised it even though I hadn’t experienced it before. That made an impact.”

“Smelling and listening stimulated my creativity. The multi-sensory way of delivering a story resulted in a very sensational state of mind. I already realised I could ‘see’ through my sense of hearing. But after today I know I can also ‘see’ by my sense of smell.”

“What I remember most clearly of the tour is The Battle of Waterloo. Its size and complexity were illustrated by your footsteps, story and the scent.”

Cultural heritage professionals also found the guided tours beneficial:

“To me the scent helped render the tour even more interactive. It stimulated interaction between me and the visitors, but also amongst themselves. Almost every visitor felt the urge to share what they perceived.”

Besides scent, what other modes of sensory engagement were used during the tour?

CARO VERBEEK: When I conducted tours for the visually impaired, I brought items to touch like a pomander and a bottle of Eau de Cologne. I also often used sounds to create a sense of space and dimension. For example, to indicate the size of Jan Willem Pieneman's painting of [The Battle of Waterloo](#) (1824), I audibly walked its length on the floor. This way everyone knew what they were dealing with.

What was the biggest challenge of using olfactory storytelling and how did you solve it?

CARO VERBEEK: I found the distribution method most challenging. One of the methods we used were blotters and I found it difficult to plan out how to prepare the blotters, hand them out, and then get rid of them again. We worked with sleeves and put 15 blotters in each sleeve, 15 minutes before the event. The tour guides were trained by me in order to do that. They carried a plastic bag so the blotters could be disposed of immediately.

How does engagement with smells contribute to worthwhile storytelling in GLAMs?

CARO VERBEEK: There is much more engagement with the objects in the museum BUT also with each other! People are very interested in the different ways the scents are perceived in relation to the objects on display and share their experiences even with total strangers and feel connected to the past and other people simultaneously. Blind and low sighted people said it helped them imagine what was being displayed and depicted and it emphasised the characters involved in the stories. Overall the experience is more memorable.



Caro Verbeek giving an olfactory guided tour.
Photo credit Cathelijne Denekamp.

3

OLFACTORY EVENT DESIGN





How do I ensure that the design of my olfactory event is suitable for the museum space, staff, and visitors? This section focusses on how to design an olfactory event based on the resources you have at hand. We describe different olfactory event types, provide examples of how they have been employed in the past and discuss why they are valuable means of engagement. Additionally, we outline various smell distribution and presentation techniques, with pros and cons of each.*

CHAPTER 1	CHAPTER 2	CHAPTER 3	CHAPTER 4	CHAPTER 5
What type of olfactory event is right for me?	What are the costs of an olfactory event?	How to present scents in heritage environments?	What are the pros and cons of smell distribution techniques?	How to manage olfactory events?
Find out what an olfactory event is and what different forms these events can take. Inspirational examples are provided.	This chapter will help you better understand how an olfactory event may impact the resources (costs and staff dedication) of your institution.	Here you can find an overview of the different ways smells can be presented safely and efficiently in heritage environments.	This chapter provides detailed information about different smell distribution techniques.	Find out a few tips and tricks to safely and efficiently care, store, and prepare supplies for olfactory events.

* This section was built on the previous research acquired via the project [In Search of Lost Scents at the Rijksmuseum Scent as a Medium in a Museum of Visual Art](#) carried out in 2020 and cumulative research done for the exhibition [Fleeting-Scents in Colour](#) at the Mauritshuis, the Netherlands. Additionally, further research and implementation was carried out by Odeuropa through their five olfactory events, [Working with Scents in Glams – Best Practices and Challenges](#) (2021), [Follow Your Nose! a guided tour with smells](#) (2022), [Workshop Malodours as Cultural Heritage?](#) (2021), [City Sniffers: a smell tour of Amsterdam’s ecohistory](#) (2022), and [Workshop Improve Your Olfactory Language](#) (2022).



WHAT TYPE OF OLFACTORY EVENT FITS YOUR ORGANISATION?

An olfactory event can come in many forms. It can be a guided tour through a museum, a self-guided tour around and through a city or a heritage site, an exhibition or installation, a nose-on workshop, a smell training, or a smellwalk, which all use smell as an integral and intentional medium of storytelling. Trailblazers within the field of olfactory events, such as Lizzie Ostrom, Mathilde Castel, Sissel Tolaas, Peter de Cupere and the Institute for Art and Olfaction's founder, Saskia Wilson-Brown (to name just a few), have been very creative in inventing ways to engage with the nose in different (heritage) environments. They have used creative methods to distribute smells and have invited visitors to sniff fragrant objects or even entire museum walls. In this chapter we break down the options by describing different kinds of olfactory events. Note that to retain a focus for this section, we do not include olfactory art installations within the scope of the section.

OLFACTORY EXHIBITION/INSTALLATION

An olfactory exhibition or installation is when (1) artworks, smells and information are presented simultaneously within a curated exhibition and/or (2) artworks with inherent olfactory properties and information are presented simultaneously within a curated exhibition. This event type is beneficial for GLAMs that wish to present a variety of objects and topics at once and have a space to do so.



Visitors sniffing the dry air foot diffusers in front of Pieter de Grebber's *Adoration of the Magi* (1638) (left) and Pieter de Hooch's *Interior with Woman in Front of a Linen Cupboard* (1663) (right) at the *Fleeting – Scents in Colour* exhibition. Photo credit Sofia Collette Ehrich.

~ SPOTLIGHT 1: TATE SENSORIUM, THE TATE MODERN,
LONDON, UNITED KINGDOM, 2015 ~

[Tate Sensorium](#) was an immersive display featuring four twentieth-century British paintings from the Tate's museum collection. Visitors could experience sounds, smells, tastes, and physical forms inspired by the artworks, and record and review their physiological responses through measurement devices. The experience encouraged a new approach to interpreting artworks, using technology to stimulate the senses, triggering both memory and imagination. Upon leaving, visitors were invited to explore the rest of the gallery using the theme of the senses as a guide.

~ SPOTLIGHT 2: FLEETING – SCENTS IN COLOUR,
MAURITSHUIS, THE HAGUE, THE NETHERLANDS, 2021 ~

The exhibition [Fleeting – Scents in Colour](#) at the Mauritshuis showcased seventeenth-century artworks from the perspective of smell. Through the use of foot-pump smell stations, visitors could experience specially designed and historically informed smells: clean linen cupboard, bleaching fields, ambergris, myrrh, a seventeenth-century canal and a pomander.



A visitor sniffing in the 'Take Off with the Flamingos' room at the *Sensorial Odyssey* interactive exhibition. Photo credit Sofia Collette Ehrich.

~ SPOTLIGHT 3: THE SENSORIAL ODYSSEY, THE NATURAL HISTORY MUSEUM, PARIS, FRANCE, 2021 ~

The [Sensorial Odyssey](#) at the [Natural History Museum](#) used large screens, impressive recorded visuals and ambient diffusion to immerse visitors in various natural environments. Eight different rooms with eight different multisensory environments showcased topics from the African Savannah to rainforest canopies.

WORKSHOP OR LECTURE

An olfactory workshop, symposium or lecture is an event where the programme is designed to include speaker presentations simultaneously with smells that are intentionally chosen for the topic of the presentation. Based on past examples, these events allowed the speaker to choose the smell based on a previously curated selection and there were no more than three smells per panel session/lecture. Smells were often distributed via blotters, or through an Aroma Jockey.





Aroma Jockey 'Scentman' Jorg Hempenius during the first Odorama edition and in action during a TedX talk by Inger Leemans. Photo courtesy of Jorg Hempenius.

**~ SPOTLIGHT 1: ODORAMA, MEDIAMATIC,
AMSTERDAM, THE NETHERLANDS, ONGOING FROM 2015 ~**

[Mediomatic](#) together with art historian Caro Verbeek and perfumer [Frank Bloem](#) created [Odorama](#), an evening of presentations and discussions together with an Aroma Jockey, who distributes smells to the audience. [Odorama](#) evenings included presentations about olfactory art, history, and design and actively engaged with all of the senses.

**~ SPOTLIGHT 2: ODEUROPA'S MALODOURS AS
CULTURAL HERITAGE?, DECEMBER 15-16TH 2021, ONLINE ~**

Odeuropa in collaboration with the [Berlin Center for Cold War Studies \(BKKK\)](#) of [Leibniz-Institute for Contemporary History \(IfZ\)](#), organised the workshop: [Malodours as Cultural Heritage?](#). The goal of the workshop was to explore and challenge the topic of stench from varying angles and provide methods and techniques using malodours as an important means of storytelling within heritage institutions. Due to Covid-19 restrictions, the workshop was held entirely online. Regardless of the online format, Odeuropa stayed faithful to its nose-on approach by developing a ['Do it Yourself' curriculum](#) for remote smelling in which online participants could follow before and while attending the workshop.



Christina Kotsopoulou using smelling beets as part of Odeuropa's 'Do it Yourself' curriculum while listening to the *Malodours as Cultural Heritage?* workshop. Photo courtesy of Christina Kotsopoulou.

OLFACTORY GUIDED TOUR

An olfactory guided tour is when artworks or other visuals, smells and information are presented simultaneously by way of a tour guide, who verbalises the information. Guided tours are beneficial for GLAMs that wish to create a unique and intimate experience for their visitors. Guided tours can highlight hidden visual elements in artworks within the GLAM collection or connect the surrounding city to the collection. Guided tours are also beneficial for those that want to have more control over the olfactory experience as they can be registered for in advance and group sizes can be decided in advance. Previous examples show that it is beneficial to offer tour guides with a variety of 10+ artwork/smell combinations in which the tour guide can choose a selective path based on their preference.

~ SPOTLIGHT 1: OLFACTORY GUIDED TOUR – A HISTORY OF STILL LIFE FROM PREHISTORY TO THE PRESENT DAY, LOUVRE, PARIS, FRANCE, 2022 ~

The Louvre museum asked scent scenographer and founder of [Iris & Morphee](#), Carole Calvez to develop 8 scents and design an olfactory guided tour through their collection of still life paintings to accompany their temporary exhibition, [Things - A History of a Still Life](#). One of the aims of the event was to bring the Louvre's still life collection to life through scents. Visitors were able to discover olfactory atmospheres, objects, and details of religious paintings through their senses. With Calvez, a scent designer, as their guide participants also learned about the history of perfumery and the historical and cultural character of scents.

OLFACTORY SELF-GUIDED TOUR

An olfactory self-guided tour is a tour when artworks or other visuals, smells, and information are presented in a way that the participant can engage with limited intervention of personnel. Communication of content can happen via an audio guide or smartphone application and depending on the desired effect, the tours can take place indoors or outdoors. These tours are beneficial for institutions who wish to engage their visitors with the collection through new outputs. Based on previous examples, these tours often offer a limited number of smells via a mobile presentation technique (printed like rub and sniff or hand held like diffusers) with place/smell combinations in which a set path can be taken.

~ SPOTLIGHT 1: PHANTOSMIA, LOS ANGELES, CALIFORNIA, USA ~

In collaboration with [Ghost Hunters of Urban Los Angeles](#) and [The Smelly Vials Perfume Club](#), The [Institute for Art and Olfaction, Los Angeles](#) (IAO) organised a self-guided, olfactory driving tour called *Phantosmia*. The tour explored the haunted history of Los Angeles, especially narratives that are specifically notable for their mention of scent. The IAO created thirteen scents presented in 3ml spray vials. The scents came with an informative map designed by [Micah Hahn](#), which participants could collect and interact with in their own time.

~ SPOTLIGHT 2: ODEUROPA'S CITY SNIFFERS: A TOUR OF AMSTERDAM'S ECOHISTORY, AMSTERDAM, THE NETHERLANDS, 2022 ~

Odeuropa's *City Sniffers: a tour of Amsterdam's ecohistory* followed one path of six stops with smells and stories within the city. Using a free phone application and a Rub and Sniff map to navigate, participants could walk around smelling and exploring stories connected to the past and present history of Amsterdam. The urban walking tour of Amsterdam was created by Odeuropa and hosted by the [Amsterdam Museum](#). This project collaborated with [Scent the Brand](#), [IFF](#), and the Institute for Art and Olfaction.



(Left and right) Participants sniffing around Amsterdam during Odeuropa's *City Sniffers: a tour of Amsterdam's ecohistory* event. Photo credit Sofia Collette Ehrich.

OLFACTORY (SMELL) TRAINING

Contemporary Western culture does not offer specific attention or vocabularies for the sense of smell, often provoking a lack of interest or legitimacy towards smell perception and description. Smell practice helps individuals pay more attention to smells and value their own capacity to engage with it. Smell practices often include odourants, such as alcohol-diluted raw materials, both natural and synthetic, which are presented to the participants who will alternate between individual description using personal memories and sensory analogies (written down and preferably in silence) and collective sharing. A collective discussion will then bring the group to select common olfactory descriptors.

~ SPOTLIGHT: ABSCENT SMELL TRAINING RESOURCES ~

[AbScent](#), a charity organisation in the UK, proposes step by step instructions for a *do it yourself* [smell training](#) on its website. Although originally intended to recover from smell loss, the training is a great inspiration to cultivate your nose and train your sense of smell. AbScent recommends using amber jars, watercolour paper, and essential oils to build an olfactory training kit. As a guide and to keep track of your progress, they created the [Snif App](#) which is easily accessible via your mobile phone. If applications are not easy for you to use, you can also use pen and paper while following their [guided questions](#).



(Left and right) Odeuropa team members participating in a smellwalk through the depot of the National and University Library Slovenia. Photo credit to Sofia Collette Ehrich.

SMELLWALK

The smellwalk is a sensory method to investigate human perception of smells in any given environment. It is used to determine what a place smells like and can also be used to investigate the influences of smells on the people perceiving them: the smellwalkers. To date, the smellwalk method has primarily been used in fields of urban planning, art and design, history, and ethnography. Notable academic contributors to the method include [Victoria Henshaw](#), [Kate McLean](#), [Suzel Balez](#), and [Louisa Allen](#). During a smellwalk, participants focus on their sense of smell as the primary sense of knowing and report their sensory experience in the form of written and/or oral commentary. Smellwalks serve three purposes which are not mutually exclusive: research and collection of olfactory data, art and heritage mediation, and raising awareness to the importance and relevance of the sense of smell.

~ SPOTLIGHT: KATE MCLEAN'S SMELLWALK FOR
THE AMERICAN HISTORICAL ASSOCIATION 136TH MEETING,
PHILADELPHIA, UNITED STATES, 2023 ~

As part of the American Historical Association 136th meeting, Kate McLean led the [‘Smellwalk Philadelphia’](#) in which “participants [were] encouraged to use [their] own noses to detect, differentiate and describe the smells of the contemporary urban landscape and imagine historical parallel odours via three walking stages.” The first stage started at Washington Square, continued to Independence Square and concluded at the Liberty Bell. The second stage went along Ranstead Street and to Benjamin Franklin’s former home. The final stage followed Market Street east past local restaurants to end at The Franklin Fountain. Smellwalkers were encouraged to connect contemporary smellscapes with historical ones and report their olfactory impressions in a *smellnote* form.



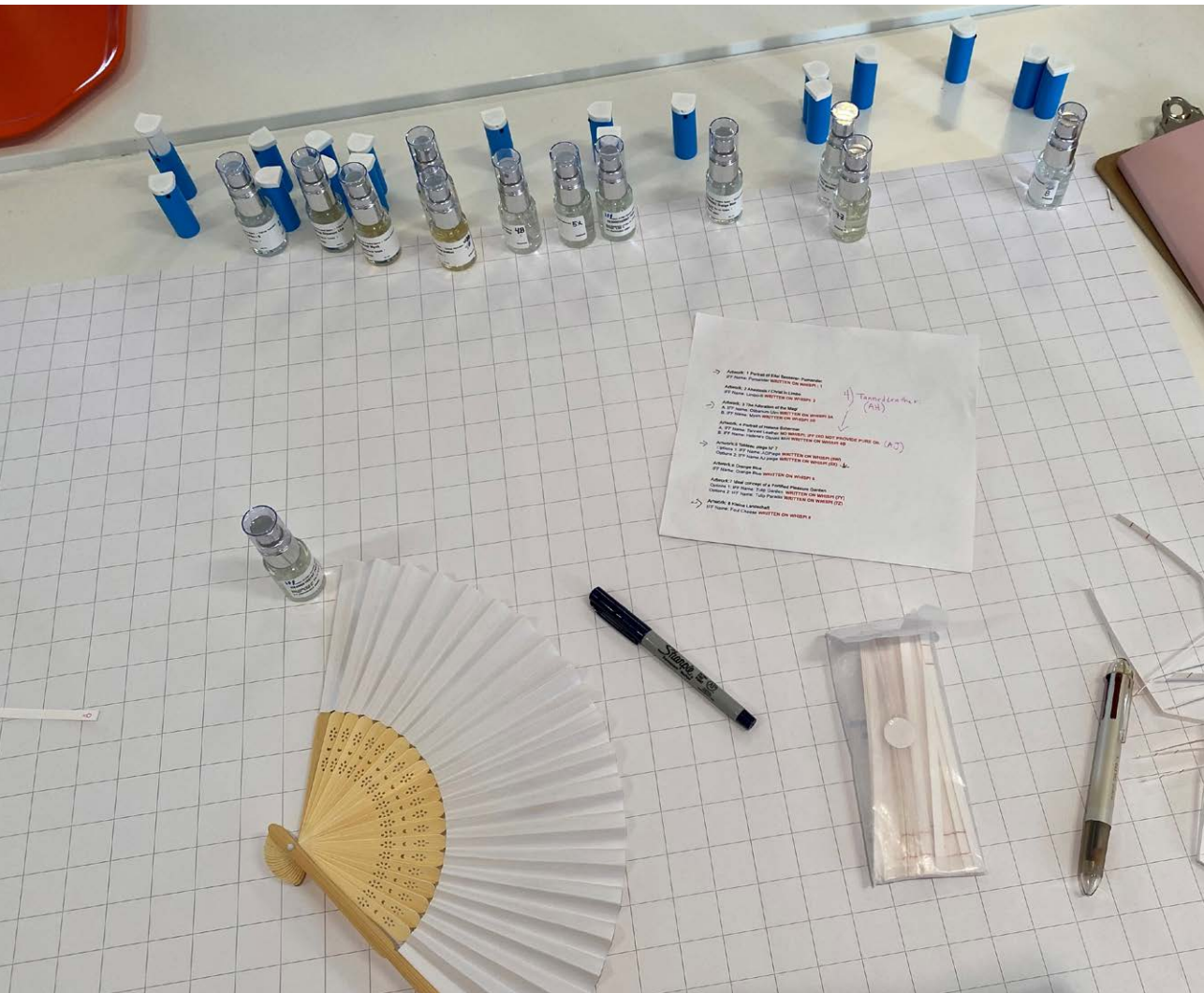
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WHAT ARE THE COSTS OF AN OLFACTORY EVENT?

Perhaps you are interested in coordinating an olfactory event, but you are unsure how this will impact your institution on a practical level. The truth is that olfactory events can come in different shapes, sizes, and budgets and they take careful planning. In this chapter, we describe three possible project options, estimating how much time, staff, and budget is involved.

Please note that these are approximations. Institution size, chosen scent designer, and number of scent creations will impact the project plan. For the budget estimations we only included costs directly related to the olfactory event.



A capture of materials in preparation for an olfactory guided tour at Museum Ulm, Germany. Photo credit Sofia Collette Ehrich.

~ PROJECT #1: OLFACTORY GUIDED TOUR WITH BLOTTERS ~

The information below provides a budget and timeline for the planning of one olfactory guided tour done inside the museum. The project estimates the creation of five heritage scents for an olfactory guided tour that lasts for three months.

Project Overview

PRODUCTION MONTHS: 12

TOTAL NUMBER OF HERITAGE SCENTS: 5

REQUIRED STAFF: 1-2 in house (GLAM professionals), 1 perfumer, 2+ tour guides

TOTAL NUMBER OF WORKING HOURS: approx. 800
(each GLAM professional working 1 day/week for 1 year)

SCENT PRESENTATION TECHNIQUE: Blotters with protective glassine sleeve

OTHER SUPPLIES: sealable bags, permanent marker, gloves

Total Approximate Budget: €3,340

3 SINGLE INGREDIENT REPRESENTATIONS: €600

2 CUSTOM SCENT COMPOSITIONS: €2,400

1000 BLOTTERS WITH PROTECTIVE GLASSINE SLEEVES: €240

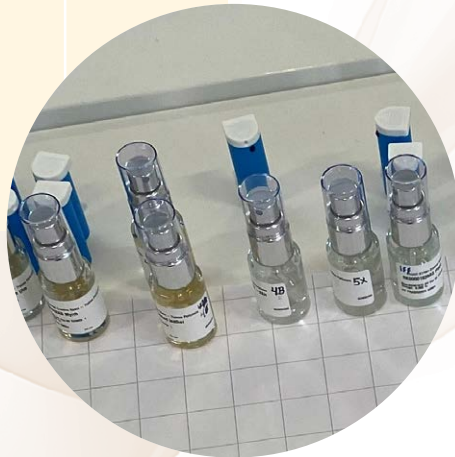
OTHER SUPPLIES: €100

/// PROJECT 1 – OLFACTORY GUIDED TOUR ///

	PLANNING AND CONTENT CURATION				SMELL DEVELOPMENT			
					ACQUIRE SUPPLIES			
	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6	MONTH 7	
GLAM INSTITUTION	Decide on the 'scope' of the guided tour. Engage with all GLAM departments that will be impacted by the event.	Look through your (digital) collection for olfactory references. For tips, consult OST Resource 1 - <i>Storyboarding. Cards to Design Olfactory Narratives.</i>	Decide on the final scent and artwork choices with the input of the scent designer; Provide all necessary information to the scent designer by using OST Resource 6 - <i>Heritage Scent Design Brief</i> for every scent creation; Provide scent designer with the OST Resource 8 - <i>Heritage Scent Development Report(s)</i> which they will need to fill out. Taking the scent designer on an in-person walk through the GLAM space and artworks is a plus.			Order supplies.		
SMELL PRODUCTION / PERFUMER			Supports GLAM on scent and artwork choices; assures understanding of the scent development process with the GLAM team.		Scent Development (round 1).		Delivery of the scents with the complete <i>Heritage Scent Development Report(s)</i> ; Organise a smell evaluation panel using the worksheet, <i>Guidelines for Evaluating Heritage Scent Creations.</i>	

TEST TOURS AND IMPLEMENTATION

MONTH 8	MONTH 9	MONTH 10	MONTH 11	MONTH 12
		<p>Train tour guides and conduct test tours. For tips on conducting and training olfactory guided tours, see OST Resource 11 - <i>Guidelines for Conducting Olfactory Guided Tours</i>.</p>		<p>Launch the Event!</p>
<p>Scent revision and final delivery of scents.</p>				





Odeuropa's *City Sniffers: a small tour of Amsterdam's ecohistory's* rub and sniff maps directly after printing by [Scent the Brand](#). Photo credit to Adam Tasi, owner of Scent the Brand.

~ PROJECT #2: GUIDED TOUR WITH RUB AND SNIFF CARD ~

This information is based on observations and coordination of Odeuropa's guided tour with a rub and sniff card, *City Sniffers: a smell tour of Amsterdam's ecohistory* (2022). The project estimates the creation of five heritage scents for a guided tour that expects 5,000 participants.

Project Overview

PRODUCTION MONTHS: 15

TOTAL NUMBER OF HERITAGE SCENTS: 5

REQUIRED STAFF: 1-2 in house (GLAM Professionals), 1 perfumer, 1 graphic designer, 1 Rub and Sniff Printer, 3+ tour guides

SCENT PRESENTATION TECHNIQUE: printed rub and sniffcard

TOTAL NUMBER OF WORKING HOURS: approx. 800 (each GLAM professional working 1 day/week for 15 months)

OTHER SUPPLIES: None

Total Approximate Budget: €20,000

3 SINGLE INGREDIENT REPRESENTATIONS: €600

2 CUSTOM SCENT COMPOSITIONS: €2,400

RUB AND SNIFF PRINTING (5,000 CARDS): €16,000

GRAPHIC DESIGNER: €1,000

Would you like to conduct your own olfactory guided tour but do not know how to start? See *Guidelines for Conducting Olfactory Guided Tours* ([OST Resource 11](#)) for more detailed information and instructions.

/// PROJECT 2 – RUB AND SNIFF TOUR ///

		PLANNING AND CONTENT CURATION				SMELL DEVELOPMENT			
						ACQUIRE SUPPLIES			
		MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6	MONTH 7	
GLAM INSTITUTION	<p>Decide on the 'scope' of the guided tour. Engage with all GLAM departments that will be impacted by the event.</p>	<p>Look through your (digital) collection for olfactory references. For tips, consult OST Resource 1 - <i>Storyboarding, Cards to Design Olfactory Narratives</i>.</p>	<p>Decide on final scent and artwork choices with the input of the scent designer; Provide all necessary information to the scent designer by using OST Resource 6 - <i>Heritage Scent Design Brief</i> for every scent creation; Provide scent designer with OST Resource 8 - <i>Heritage Scent Development Report(s)</i> which they will need to fill out. Taking the scent designer on an in-person walk through the GLAM space and artworks is a plus.</p>				<p>Brief a graphic designer on the design of your Rub and Sniff card; Be sure to involve the Rub and Sniff Printer in the design process for optimal printing quality.</p>		
	SMELL PRODUCTION / PERFUMER			<p>Supports GLAM on scent and artwork choices; assures understanding of the scent development process with the GLAM team.</p>		<p>Scent Development (round 1).</p>		<p>Delivery of scents with complete <i>Heritage Scent Development Report(s)</i>; Organise a smell evaluation panel using OST Resource 10 - <i>Guidelines for Evaluating Heritage Scent Creations</i>.</p>	

TEST TOURS AND IMPLEMENTATION

MONTH 8	MONTH 9	MONTH 10	MONTH 11	MONTH 12	MONTH 13	MONTH 14	MONTH 15
		Deliver graphic design to Rub and Sniff Printer.			Train tour guides and conduct test tours		Launch the Event!

Scent revision and final delivery of scents to Rub and Sniff Printer.





Odeuropa’s *Liberty Smells* scented card (front and back) which was created in collaboration with the American Historical Review and perfumer, Carole Calvez. Card printed by [Olfapac](#). Photo credit Sofia Collette Ehrich.

PROJECT #3: ONE SMELL CARD WITH PLASTIC SLEEVE

The information below provides a budget and timeline for the planning of one smell card with a plastic sleeve. The project estimates the creation of 500, 5.5 x 8.5 cm cards which can be used in various ways (inside the museum space, to sell in the museum shop, to accompany a printed journal article).

Project Overview

PRODUCTION MONTHS: 5

TOTAL NUMBER OF HERITAGE SCENTS: 1

REQUIRED STAFF: 1 in house (GLAM Professional), 1 perfumer, 1 graphic designer, 1 printer

TOTAL NUMBER OF WORKING HOURS: approx. 40
(each GLAM professional working 1 day/week for 5 months)

SCENT PRESENTATION TECHNIQUE: printed scented card

SUPPLIES: None

Total Approximate Budget: approx. €2,800

1 CUSTOM SCENT COMPOSITION: €1,200

PERFUME CONCENTRATE COSTS: €250

PRINTING (500 CARDS): €350

GRAPHIC DESIGNER: €1000

	PLANNING AND CONTENT CURATION	SMELL DEVELOPMENT		GRAPHIC DESIGNER	IMPLEMENTATION	
				SMELL PRINTING		
	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6
GLAM INSTITUTION	Look through your (digital) collection for olfactory references. For tips, consult OST Resource 1 – <i>Storyboarding. Cards to Design Olfactory Narratives.</i>	Decide on final scent and artwork choices with the input of the scent designer; Provide all necessary information to the scent designer by using OST Resource 6 – <i>Heritage Scent Design Brief</i> for every scent creation; Provide scent designer with OST Resource 8 – <i>Heritage Scent Development Report(s)</i> which they will need to fill out. Taking the scent designer on an in-person walk through the GLAM space and artworks is a plus.	Brief a graphic designer on the design of your smell card.		Preparation of the placement and use of the smell card.	Disseminate smell cards.
		Scent Development (round 1).	Delivery of scents with complete <i>Heritage Scent Development Report(s)</i> ; Organise a smell evaluation panel using OST Resource 10 – <i>Guidelines for Evaluating Heritage Scent Creations.</i>	Scent revision and final delivery of concentrate to printer.		





se gracht
ury Canal

der Heyden
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Bleekvelden
Bleaching fields

Jacob van Ruisdael
Gezicht op Haarlem
met bleekvelden
View of Haarlem
with Bleaching
Fields

Winterpomander
Winter pomander

Pomander
Noord-Nederlands
Northern
Netherlands

Kruident
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HOW TO PRESENT (HERITAGE) SMELLS IN GLAMS?

Now that you have decided the type of olfactory event that you want to organise, and have a basic understanding of the costs and time involved, we can now focus on the different scent distribution and presentation techniques that you can employ for your event. Smells are fleeting and therefore difficult to control within time and space. This makes finding a presentation technique that meets every requirement challenging. Here we provide extensive information that will help you compare and contrast different presentation techniques and choose the best solution for your situation.

CONSIDERATIONS BEFORE CHOOSING A SCENT PRESENTATION TECHNIQUE:

- **Decide on the project's goal:** What do you want to achieve with the olfactory event and why? For how long will the olfactory event last? Goals can be educational, immersive, to make your event more accessible, etc.
- **Consider time and financial investment:** Think about how much time and money your institution can dedicate to training your team and carrying out the olfactory event. Members of the team must be appointed to the preparation and execution process of the event and supplies and scents must be paid for.
- **Evaluate your space:** Consider the affordances of the space within your heritage institution. For example: does the space allow the passing through of diverse groups (visually impaired, hearing impaired, all ages, wheelchair accessible)? What types of displays fit the space? Are scents allowed to 'spill' from one room to the other?
- **Consider your target audience and number of participants:** Is it local communities or tourists, children, teenagers or adults? How many participants does the institution wish to draw to the olfactory event? How many visitors does it wish to accommodate throughout the event's duration?



OVERALL CONSIDERATIONS FOR DELIVERING OLFACTORY STORIES:

- **Think about the order of presenting scents:** When using malodours and fragrances together, it is best to balance their use. Too many malodours at once can risk overwhelming the visitor. We recommend not to start or finish an olfactory event with a malodour.
- **Time olfactory interventions strategically:** Using scent as a tool for visitor engagement offers new and exciting opportunities to explore the museum space! However, interaction with scents can risk distracting the visitor from the verbal or written contextual information. Make sure that you plan how the scent will play a role throughout the entire event including how participants will engage with all aspects of the content.
- **Limit the number of scent interventions:** Smelling can be exhausting for visitors. Make sure to limit the number of scent interventions to prevent nose fatigue. We recommend using no more than 8 scents throughout the duration of an olfactory event.


OVERVIEW OF TYPES OF DIFFUSION

Based on informed research and the creation of Odeuropa's olfactory events, the following presentation techniques are outlined for the use of olfactory storytelling in GLAMs. They will be further described below.

(1) Environmental Diffusion

- (a) Scent Machine
- (b) Aroma Jockey

(2) Mobile Diffusion

- 
- (a) Hand fan
 - (b) Handheld Dry Diffusers
 - (c) Blotter
 - (d) Blotter Kit
 - (e) Rub and Sniff

(3) Fixed Scent Stations

- (a) Scent Column
- (b) Affixed (Glass) Container with Hand Pump System

~ ENVIRONMENTAL DIFFUSION ~

Environmental diffusion means that smells are (semi)-automatically diffused into the physical space. This can be done using scent machines specifically designed for this purpose. When disbursing more than one smell, one needs to pay more attention with environmental diffusion. This is due to the challenge of clearing scents from the space between their release. This takes careful coordination.



The [Multiscent DMX Scent Machine](#) sold by AromaPrime. Photo courtesy of AromaPrime.

Scent Machine

DESCRIPTION

The environmental diffusion of smells can be distributed into the air via a small *scent machine* that is usually hidden from plain sight. The scent machine lets out scented material periodically so the space has a perceivable smell upon entering.

IMPLEMENTATION

It is important that the museum staff and visitors are informed when ambient diffusion is used. Since the aromatic material fills the air, proper signage and warnings should be indicated so visitors are prepared and aware of the situation they are entering. Implementation of this technique must follow health and safety requirements.

Aroma Jockey

DESCRIPTION

Another form of ambient diffusion is via an Aroma Jockey. Suggested for lectures and pop-up events, an Aroma Jockey diffuses smells from a designated space with the use of electric fans. Due to the release of odour droplets during the use of this technique, it is not recommended for spaces which hold artefacts or other sensitive spaces.



Aroma Jockey, Scentman distributing scents at the opening of *Mondrian Moves*, Kunstmuseum Den Haag, the Netherlands, 2022. Photo credit Sofia Collette Ehrich.

IMPLEMENTATION

The use of an Aroma Jockey is beneficial to symposiums, lectures, and exhibition openings. They can disburse relevant scents during a lecture or other live experience. Theatricality can be increased by the use of dry ice. Since the smell material fills the air, the audience in the first rows will receive a higher impact of the scents. Proper signage and warnings should be indicated on the event programme so visitors are prepared and aware of the situation upon entering.

~ MOBILE DISTRIBUTION ~

Local distribution means that participants or event guides are given something to hold, carry and smell in their hands. These techniques are prepared in advance by the act of dipping, spraying, or printing.

Hand Fans

DESCRIPTION

A hand fan, or handheld fan, is a broad surface (of paper or fabric) that can be folded and unfolded. When sprayed beforehand with scent, it can be waived, emitting only dry air. Since it does not require close contact between persons or the exchange of items, it is hygienic. This technique requires intervention from someone who waves the scented fans and explains their purpose.



Odeuropa team member, Sofia Collette Ehrich preparing a hand fan for an olfactory guided tour at Museum Ulm in Germany. Photo credit Victoria-Anne Michel.

IMPLEMENTATION

The hand fan technique works well for olfactory guided tours. Depending on the size of the group, when employing the hand fan technique for guided tours, you can prepare 1-2 fans per scent. We observed that participant interest was increased when the second fan was given to a participant to engage with the group along with the tour guide. The fans can be kept in thick plastic bags, labelled by scent and artwork. It is efficient for larger and spontaneous groups as it does not require any preparation beforehand.

Blotters

DESCRIPTION

Blotters are acid-free, strong paper sticks on which a fragrance can be applied or dipped into. Blotters come in different forms, for example wide at the top with a pointed tip. This technique requires intervention from someone to hand out the blotters and explain their purpose.

IMPLEMENTATION

Blotters are used for various types of events where it is possible to hand out objects: indoor or outdoor guided tours, smell trainings and workshops, conference presentations, etc. They are most efficient when the number of participants is known beforehand so proper preparation can be done. To ensure safe handling and better scent containment, we recommend that blotters are used together with a cover. The addition of a glassine bag (seen above) works well, but a small bag to carry blotters is also efficient (see below).



(Left) Blotters in hand after a scent evaluation. Photo credit Sofia Collette Ehrich. (Right) Odeuropa team members, Victoria-Anne Michel and Lizzie Marx dipping blotters in preparation for olfactory guided tours conducted at Museum Ulm, Germany. Photo credit Sofia Collette Ehrich.



Caro Verbeek with a carrier bag of blotters during an Odeuropa guided tour training. Photo credit Sofia Collette Ehrich.



Handheld dry diffusers used as press kits for the *Follow Your Nose! A guided tour with smell* event in collaboration with Museum Ulm and IFF. Photo credit Sofia Collette Ehrich.



Handheld dry diffusers used as press kits and [take home virtual tour](#) for *Fleeting – Scents in Colour*, an exhibition curated by Ariane van Suchtelen at the Mauritshuis in The Hague, the Netherlands and created in collaboration with IFF. Photo credit Sofia Collette Ehrich.

Handheld Dry Diffuser

DESCRIPTION

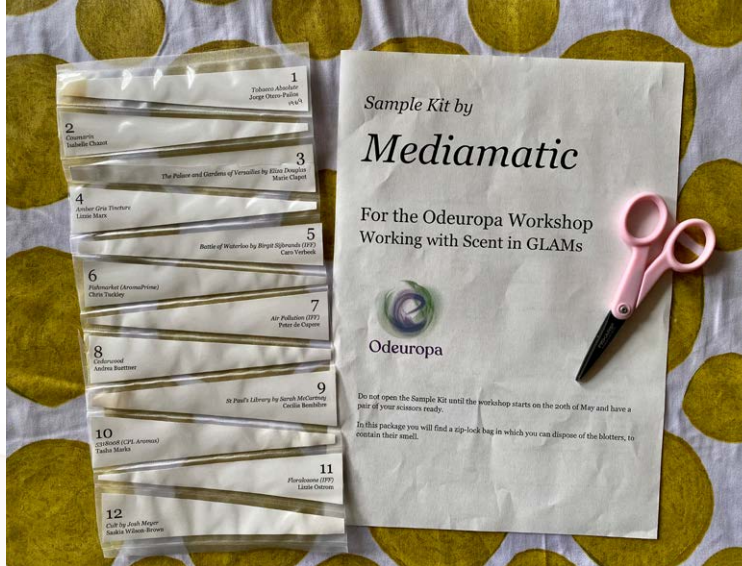
One example of the handheld dry diffuser technique are small cylindrical containers from which scent can be dry diffused. Before use, a few drops of pure, perfume (or essential) oil is applied to the absorbent sponge inside the container. When used, a puff of dry air comes out via unlocking the container and pushing the top up and down. They are easy to use and can be easily transported and carried as they are lightweight and do not contain any liquid. Three drops (.15ml) of perfume oil is enough to be used over 10,000 times. Perfume oil can be reapplied when the smell intensity starts to fade. This technique requires intervention from someone to hand out the containers and explain their purpose.

IMPLEMENTATION

Handheld dry diffusers can be used in different ways. One of those ways is in the place of when a blotter would be used. Handheld dry diffusers are particularly efficient for olfactory guided tours where a tour guide hands out a diffuser in front of each artwork and instructs participants on how to use. Tour guides found this technique efficient as it can be prepared up to one month in advance, reused many times and adapted for different group sizes.



Lizzie Marx using a handheld dry diffuser in front of an artwork at the Museum Ulm in Germany. Photo credit Sofia Collette Ehrich.



The smell kit for Odeuropa’s workshop, [Working with scent in GLAMS – Best Practices and Challenges](#) designed and created by Mediamatic team members. Photo credit Sofia Collette Ehrich.

Blotter Smell Kit

DESCRIPTION

A blotter smell kit is a (self-made) kit created with blotters and a vacuum sealer machine. Three to six scents can be sealed into the vacuum sealed package which can be easily disseminated or mailed to a group and opened when desired.

IMPLEMENTATION

A blotter smell kit can be used for olfactory events that have a limited number of participants (less than 15) and is a suitable solution for virtual olfactory events where scents have to be mailed. Low budget kits like these can be created with minimal supplies: blotters, alcohol diluted scent, a pen, and a vacuum sealer. For efficiency, we recommend this technique for a minimum of 3 and a maximum of 6 smells. To ensure proper use, blotters should be labelled properly with the name of the smell and the subject it is connected to.

Rub and Sniff (also known as Scratch and Sniff)

DESCRIPTION

Rub and Sniff, also known as Scratch and Sniff technology, was invented by 3M in 1965. It is achieved through the process of microencapsulation which is when perfume drops are enclosed at a microscopically small level and little ‘walls’ go around the drops that will preserve the scent. One microencapsulated spot contains millions of these small microscopic scent capsules and when these scent spots are rubbed with the participant’s finger, the walls break and the scent is ‘freed.’ This is how and when the scent is perceived by the user.

IMPLEMENTATION

Rub and Sniff cards can be used in various ways: as an advertisement, a companion to a journal publication, a historical scent map, etc. Cards transport easily, can be shared, mailed and smelled more than once over longer periods of time. Information for the scents and artworks may be communicated via a QR code or written directly on the card itself.

EXAMPLES OF RUB AND SNIFF CARDS

AHR HISTORY LAB

American Historical Review 127.2 (2022), <https://doi.org/10.1093/ahr/rhac150>

Making Whiffstory

A Contemporary Re-creation of an Early Modern Scent for Perfumed Gloves

Lizzie Marx *University of Cambridge*, Sofia Collette Ehrlich *KNAW*, Inger Leemans *KNAW*, Cecilia Bernabre *University College London*, William Tullett *Anglia Ruskin University*, Odeuropa, IFF, and Museum Ulm

This publication is in two parts: the scent contained on this card, which was developed to accompany the portrait of Helena Schermer (see reverse) in the Museum Ulm collections, and an explanation of the methodology by which it was developed.

For the latter, please see the print or online version of this journal.

Scratch 'n' Sniff



Andreas Schuch *Portrait of Helena Schermer*, 1650, oil on canvas, 100 x 82 cm, Museum Ulm, Ulm

This research has been supported by the European Union's Horizon 2020 program project Odeuropa under grant agreement number 101004469.



Odeuropa



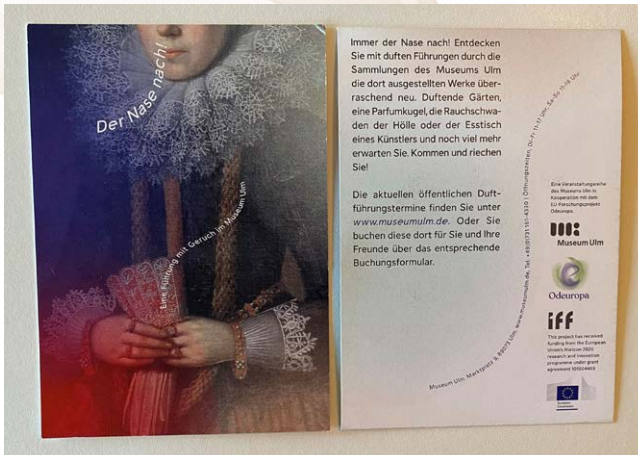
Where science & creativity meet



Odeuropa's [Making Whiffstory Rub and Sniff publication](#) (back and front) created in collaboration with IFF and the American Historical Review Journal.



Rub and Sniff Map created for Odeuropa's *City Sniffers: a smell tour of Amsterdam's ecohistory* held next to the City Sniffers application which was created by Odeuropa researchers. Photo credit Vania Lopez.



Scented advertising flyers of rose and rosemary created for the *Follow Your Nose! A guided tour with smells*, an event created by Odeuropa in collaboration with Museum Ulm, Germany. Photo credit Sofia Collette Ehrlich.



Rub and Sniff card printed with Braille created for the Van Abbe Museum's multi-sensory exhibition, *Delinking and Relinking* on display from 2021-2025. Photo credit Sofia Collette Ehrlich.

~ FIXED SCENT STATIONS ~

Scent stations are fixed structures built for the purpose of an olfactory event or exhibition within a GLAM institution space. To prevent potential damage to the GLAM's collection, these stations are often created with dry diffusion. Dry diffusion means that a container with a small amount of olfactory material can be used together with a pump to release into space with minimal impact.

Scent stations can be built to consider different functions and situations. For example, the stations can be situated at a height suitable for children, adults and be wheelchair accessible. Additionally, by switching a hand pump for a foot pump, stations can be more hygienic in situations where contact hygiene is a concern.

Scent stations can come in different designs. We provide two examples below.



The Scent Column

DESCRIPTION

A 'Scent Column' is a standing structure that has multiple sniff spots. The column has a drawer in which you place the scented material. When the hand pump is squeezed, it disburses dry, scented air.

IMPLEMENTATION

Scent columns are presented inside the cultural heritage institution. Institutions can choose to present one or more and they can be staged in different parts of the space. Information about the scent can be communicated either on the structure itself or via a text on the wall.

The Scent Column used as a pop-up smell station at the Amsterdam Museum for the Odeuropa event, *City Sniffers: a smell tour of Amsterdam's ecohistory*. Photo credit Sofia Collette Ehrich.

Affixed (Glass) Container with Hand Pump System

DESCRIPTION

This smell station consists of a (glass) container with a small amount of olfactory material at the bottom of the bottle which will aromatised the air in the rest of the container. When the hand pump is squeezed, it releases scented air directly to the nose.

IMPLEMENTATION


Cultural heritage institutions can affix these containers to platforms within an exhibition space to keep them stationary and available for use. Information about the scent must be communicated either on the structure itself or via another description (audio or visual).





Liam R. Findlay sniffing a smell station made from a glass beaker and hand pump used for the exhibition *Mondrian Moves* and designed by Berend Visser at the Kunstmuseum Den Haag, The Hague in the Netherlands. Photo credit Sofia Collette Ehrich.




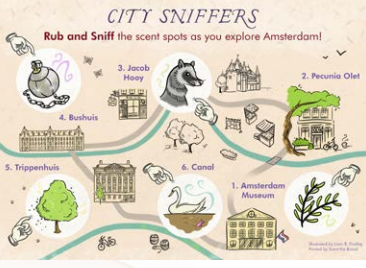
PROS AND CONS OF SMELL DISTRIBUTION TECHNIQUES


AMBIENT DIFFUSION	PROS	CONS
 <p data-bbox="74 869 453 1019">An Aroma Block by AromaPrime.</p>	<ul data-bbox="453 584 832 1019" style="list-style-type: none"> • The machines can be hidden for effect. • It creates a smellscape or atmosphere. • Requires little interaction or intervention from the user and museum staff. • It can involve groups of all sizes. • Creates an immersive environment. 	<ul data-bbox="832 584 1206 1019" style="list-style-type: none"> • Because it can release odour droplets into the air, the technique poses a higher risk to the artworks. • Since the smells are in the air, allergy and potential visitor annoyance is more likely. • More difficult to control within the space requiring more testing for frequency and intensity of release. • Since machines create heat, they have to be checked as a potential fire hazard. • When used for longer periods, machines require refills.


HAND FAN	PROS	CONS
 <p data-bbox="74 1401 453 1565">Hand fan with a bottle of scent.</p>	<ul data-bbox="453 1113 832 1565" style="list-style-type: none"> • Dry diffusion is safe for the GLAM collection. • Due to their easy preparation and easy impact on a large number of people (8+), it works well for spontaneous events when participant numbers are unknown. • The fan spreads the smell evenly and directly to its intended area and dissipates quickly when no longer in use. • The technique is reusable. • Encourages communal smelling, curiosity and conversation. Participants often lean into the fan's trail and investigate the scent together. 	<ul data-bbox="832 1113 1206 1565" style="list-style-type: none"> • Fans must be reapplied with scent every day that they are used for an event. • This technique does not allow for an individual and controlled smelling experience, increasing the probability of participants being overwhelmed – especially with unpleasant odours. • Depending on the hand fan, they can be flimsy and easily breakable.


BLOTTER (WITH GLASSINE BAG)	PROS	CONS
 <p data-bbox="72 713 453 775">Blotter strip with a glassine bag.</p>	<ul data-bbox="453 207 832 775" style="list-style-type: none"> • Dry diffusion is safe for the GLAM collection. • The technique offers a controlled and individual experience for the user as they are able to choose the pace and amount of time that the smell is in front of their nose. • Blotters are inexpensive to purchase and participants of the event can take the blotters with them as a keepsake. • Blotters can be used for large group events (workshops/ conferences/symposiums) or smaller groups (guided tours/ olfactory training). • Blotters capture a well rounded experience of the scent. Participants can experience the evolution of the scent (top, middle, base notes). 	<ul data-bbox="832 207 1217 775" style="list-style-type: none"> • Carrying blotters can be cumbersome and awkward for the user(s). • Blotters need to be collected after use. • Blotters leave a scent trace in the room more than other techniques. • Preparing and dispensing blotters is time consuming. • There is a higher risk of scent cross contamination. • Requires storage space for the supplies. • Blotters are recyclable but not reusable, therefore they create more waste.

BLOTTER SMELL KIT	PROS	CONS
 <p data-bbox="72 1397 453 1456">Vacuum sealed blotter kit.</p>	<ul data-bbox="453 888 832 1456" style="list-style-type: none"> • Dry diffusion is safe for the GLAM collection. • The technique offers a controlled and individual experience for the user as they are able to choose the pace and amount of time that the smell is in front of their nose. • These supplies are easy to find and inexpensive to purchase. • Easy and straightforward to use. • Kits can be prepared up to 10 days in advance. • Possible to ship in the mail. 	<ul data-bbox="832 888 1217 1456" style="list-style-type: none"> • Hand coordination is necessary. • Material use is higher and not reusable making this technique less sustainable than others. • Production of the kits is cumbersome and time consuming. • Exact number of necessary kits must be known in advance

RUB AND SNIFF	PROS	CONS
 <p>Rub and Sniff map.</p>	<ul style="list-style-type: none"> • Microencapsulation is safe for the GLAM collection. • The technique offers a controlled and individual experience for the user as they are able to choose the pace and amount of time that the smell is in front of their nose. • Production of the cards are outsourced causing less stress for the GLAM institution. • Allows flexibility in olfactory event design and storytelling. • Offers participants a keepsake from the experience. • The microencapsulation technique ensures a long lasting smell experience. It preserves the aroma on the paper for six months or more. 	<ul style="list-style-type: none"> • Rub and sniff printing is costly. • Due to the process of microencapsulation, the smell becomes slightly less vibrant than with other techniques. • Hand coordination is necessary. • Brief instruction is necessary before using.

RUB AND SNIFF	PROS	CONS
 <p>Three handheld dry diffusers.</p>	<ul style="list-style-type: none"> • Dry diffusion is safe for the GLAM collection. • The technique offers a controlled and individual experience for the user as they are able to choose the pace and amount of time that the smell is in front of their nose. • With the first application of perfume oil, the handheld dry diffuser technique can hold scent for months and can be reapplied as needed. • Can be disinfected, cleaned and reused for multiple events. • Can be prepared in advance requiring little preparation time for the user just before the event. 	<ul style="list-style-type: none"> • Since the scent material has time to sit in the container, the smell becomes slightly less vibrant than other techniques. • Carrying the diffusers can be cumbersome and awkward for the user. • To avoid misuse, there must be a system to differentiate between diffusers of different scents (a label, sticker, colour coding of containers). • Brief instruction is necessary before using. • Initial preparation is time consuming.


THE SCENT COLUMN	PROS	CONS
 <p data-bbox="78 729 453 777">The Scent Column.</p>	<ul style="list-style-type: none"> • Dry diffusion is safe for the GLAM collection. • The technique requires little preparation time. • Long lasting scent experience and does not need replacing often. • The scent column can be decorated, adorned, and painted for visual effect. • The hand pump allows for the user to control their own smell experience. • A proper height for children, adults, and is wheelchair accessible. 	<ul style="list-style-type: none"> • Requires hand contact raising hygiene concerns. • More costly than other techniques. • Adequate space is necessary for the station to stand.

THE SCENT COLUMN	PROS	CONS
 <p data-bbox="104 700 358 749">Affixed (Glass) Container with Hand Pump System.</p>	<ul style="list-style-type: none"> • Dry diffusion is safe for the GLAM collection. • The technique requires little preparation time. • Long lasting scent experience and does not need replacing often. • Simple design and easy to use. • The hand pump allows for the user to control their own smell experience. • The design of the bottle can differ upon request. • Since the container is small, it can be integrated into the design of the exhibition easily. • Scented material only releases upon interaction with the user. This decreases the risk of filling the space with scent and the need for replenishment of scented material. • Inexpensive to produce. 	<ul style="list-style-type: none"> • Requires hand contact raising hygiene concerns. • If the container is made of glass and can break if mishandled. • The container must be affixed to something to prevent misuse. • Cleaning and refilling the container is cumbersome.



Museum Ulm's curator, Eva Leistenschneider and Odeuropa team members, Victoria-Anne Michel and Lizzie Marx preparing blotters for *Follow Your Nose* test tours. Photo credit Sofia Collette Ehrich.


HOW TO MANAGE OLFACTORY EVENTS?



Olfactory events take special care and management. Since olfactory materials (ex. perfume, essential oils) are made of organic matter, they can be potentially hazardous and subject to degradation. Degradation especially happens to these materials when they are stored for long periods of time in harsh conditions (bright light and high temperatures). It is important to take preventative measures when storing and using scented materials as misuse can cause quicker decline and affect the quality of the materials. The three principal threats of olfactory materials are light, heat, and oxygen.

Here we offer tips for caring, storing, and preparing supplies for an olfactory event.

Caring for your Scented Materials:

- Store olfactory materials (diluted smells, essential oils, perfume oils) in a cool, dry, dark space, ideally in a fridge for optimal temperature control.
 - Olfactory paper matter (ex. rub and sniff cards) and handheld dry diffusers should also be stored in a cool, dry, dark space to keep them in good condition.
 - To prevent smell from ‘leaking’ into the space, supplies should be stored in airtight containers ideally away from public and working spaces.
 - When storing olfactory materials, especially essential oils, opt for those that have child-resistant closures for optimal protection.
 - Make sure all olfactory materials are clearly labelled for their contents and can be properly closed with a screw on top.
 - For further protection from light exposure, store olfactory materials in a dark place and in dark brown bottles.
- 

Tips on Properly and Safely Preparing Supplies Olfactory Events:

- To prevent an adverse skin reaction, essential oils and diluted scents should have little to no direct contact with your skin. Gloves should always be used for both hands when handling and preparing supplies for an olfactory event (dipping blotters, preparing handheld dry diffusers, etc).
- To prevent cross contamination, olfactory event supplies must never be used more than once or for different scents. This includes the use of blotters, pipettes, handheld dry diffusers, gloves, and hand fans.
- When planning an olfactory event, the fresher the olfactory material the better. For example, blotters should not be prepared more than two hours in advance of the start of an event.
- Prepare olfactory event materials (ex. dipping blotters) away from the collection spaces and artworks. Find a preparation area with optimal air ventilation.

Use of Olfactory Materials:

- When using olfactory materials, always return and close the bottle caps directly after use to avoid spills and evaporation.
- We recommend that areas and workspaces which hold smells should have proper signage for individuals who have olfactory sensitivities.
- For presentation techniques where olfactory material can be reapplied (ex. handheld dry diffusers, fixed smell stations), we recommend reapplication every four to five weeks to ensure scent quality.
- Tote bags, baskets, and zipper plastic bags can be used to carry supplies (handheld dry diffusers, blotters, hand fans) throughout the duration of an olfactory event.
- If stored properly (but depending on the frequency of use), olfactory materials like essential oils and alcohol diluted scents should be replaced every 12 months to ensure optimal quality and use. It is best to mark the bottle with the date of when you first opened it to ensure timely replacement. Note: the more air (or space) present in the storage bottle, the quicker oxidation will occur.

CASE STUDY



Inspiration for Presenting and Distributing Scents in Heritage Spaces

5





Case Study

Jorg Hempenius performing as an Aroma Jockey. Photo credit Sofia Collette Ehrich.

Jorg Hempenius

Scent Expert and Founder of [iScent](https://www.iscent.nl/), the Netherlands

WEBSITE:

<https://www.iscent.nl/over-iscent/>

<http://www.museumbeleving.nl/>

A big challenge of olfactory storytelling is finding the best way to present and distribute the scents safely and efficiently within heritage environments. Scent expert, Jorg Hempenius has been solving these challenges for more than a decade and has come up with many creative methods for presentation.

Who is Jorg Hempenius?

[Jorg Hempenius](#) is the founder of [iScent](#). He is a scent expert based in the Netherlands who has been working in the fragrance industry for twelve years. Hempenius creates custom fragrances and explores the practical dissemination and distribution of such scents in a wider physical curatorial context. You can learn more about Jorg's work with heritage institutions on his website [Museum Beleving](#) (Dutch).

What types of smell distribution methods has iScent offered heritage institutions in the past?

Hempenius uses two main methods of diffusion which are passive diffusion meaning via a spray or machine and active diffusion meaning that people have to interact in some way. This is usually via a nested box or a hand or a foot pump. In his experience, most heritage institutes prefer when the odourant liquid is placed in a vessel and scented air is activated via hand or foot pump. Heritage institutions tend to be more wary of diffusion that involves machines because they are more difficult to control.

A visitor sniffing a scent at the [Mondrian Moves exhibition](#) at the [Kunstmuseum Den Haag](#) in the Netherlands (2022) using the pump with a rubber bulb method. Photo credit Sofia Collette Ehrich.

You can see the 'pump with a rubber bulb' method in action to the right.

According to Hempenius, passive and active diffusion offer similar scent experiences, but he emphasises that he always considers the preference of the heritage professionals. It is important that they are comfortable with the experience and the diffusion can always be reassessed and adapted to their needs.

Jorg Hempenius offers the following personal experiences of using various presentation methods of scents in heritage spaces:

#1. Pump with a rubber bulb method (active diffusion)

JORG HEMPENIUS: "The pump with a rubber bulb method can be described as when a liquid fragrance is placed in a hollow space – such as a bottle – and gets a puff of air via a (hand) pump. The pump method transports scented air to the participant upon engagement."



#2. Box with double bottom
(active diffusion)

JORG HEMPENIUS: “This method places scented material inside a box that is nested inside something else like a wall, chest, plastic fixture. The scents can be safely experienced by approaching the fixture and sniffing via strategically placed holes. This is commonly used in fixed exhibition spaces.”

#3. Cartridges in hollow inside spaces with an air fan (passive diffusion)

JORG HEMPENIUS: “Scents can also be diffused ambiently making the scent experience more passive. Scents can be stored in any hollow space, and when air flows through this space supported by the ventilator, it will carry the smell molecules into the room through the air flow. This is how smell (in whatever quantity) may be distributed, depending on the power of the ventilator. In turn, this ventilator can be triggered by differing sensors. I always advise on the best balance between material quantity and the ventilator’s air flow power to stay within the institution’s limitations and still achieve their goals.”

#4. Scented paper cards
(active diffusion)

JORG HEMPENIUS: “Scented paper cards are a durable and cheaper alternative to scratch and sniff cards. They absorb scent well and are easy to sniff without much interaction. A downside is that their scent tends to ‘leak’ more into the space so they should be packaged and stored in airtight containers when not in use.”

How do you choose a scent distribution method when using malodours in heritage institutions?

When using malodours, extra precautions are considered and it is best to use a method that allows the visitor to determine their own dosage of the scent. In this case, the pump with a rubber bulb method allows visitors control over their scent intake while still having an impactful experience. Hempenius also emphasises that a more contained method does not make the whole space smell bad, which is essential to keep in mind.

As someone who both creates scents and the design methods for their presentation, how do you ensure the safety of the heritage institution’s staff and visitors?



Odeuropa trainee, Christina Kotsopoulou sniffing a scented card at the [Delinking and Relinking](#) multisensory exhibition at the [Van Abbe Museum](#) in Eindhoven, the Netherlands. You can see the 'scented paper cards' method in action above. The method was applauded by staff and museum visitors for its ease of application and long lasting smell intensity.

It is crucial to keep to [IFRA Standards](#) and use high quality materials, which is especially important when scents are used in open spaces (ambient diffusion). He says that it is important to consider that allergens are everywhere – in natural or synthetic fragrance compositions – so when they are spread through space there is always the possibility of an allergic reaction or for annoyance to occur. However, Hempenius emphasises that in his experience, this has hardly ever happened. If costs and smell annoyance are a concern, it is best to follow modes of active diffusion.

Jorg Hempenius' advice for starting your own olfactory events:

- #1. "Understand the story: dive deep into the narrative that the cultural organisation wants to tell and identify its most important themes and emotions. This helps when deciding on specific scents which help emphasise the wider narrative."
- #2. "Dare to experiment with scent in spaces: individual artworks can benefit from a deepening of the experience through scent and the space itself can also enhance a specific ambiance by incorporating scent so all the featured artworks have more of an impact together."

#3. “Test and evaluate: run tests to analyse how visitors respond to the smells and gather feedback. If necessary, alter the scent experience to reach the desired impact. Under-

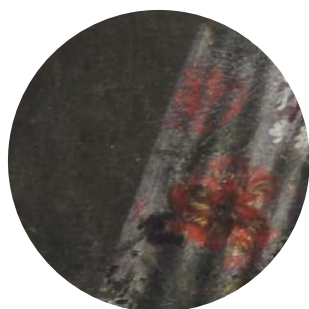
stand that because curation with scent is always an experiment, you may not achieve 100% safety all of the time. It is good to understand your audience and adapt.”

CASE STUDY



Follow Your Nose! A Guided Tour with Smells at Museum Ulm, Germany

6



A portrait of Lizzie Marx, a woman with long, curly brown hair, smiling slightly. She is wearing a dark, textured jacket. The background is a blurred gallery space with a framed picture on the wall.

Case Study

Photo credit Chris O'Toole, National Gallery of Ireland, Dublin, Ireland.



Lizzie Marx

*Odeuropa Researcher and Curator of Dutch and Flemish art,
[National Gallery of Ireland](#), Dublin, Ireland*

WEBSITE:

<https://www.codart.nl/guide/curators/lizzie-marx/>

Guided tours are an important interactive and multisensory mode of engagement for heritage institutions. Tour guides can curate new and exciting paths through their collection and verbalise fresh and uncommon narratives to their participants. Within Odeuropa, we created an olfactory guided tour in collaboration with [Museum Ulm](#) in Germany and [IFF](#) called [Follow Your Nose! A guided tour with smells](#) (2022-present) which included [eight artworks](#) and eleven scents. Curator and researcher Lizzie Marx says an olfactory tour showcases “a story that has depth. The most impact or depth is created when the olfactory has a significant connection to the object or artwork on display.” You can read more about the creation and development of *Follow Your Nose!* on the Odeuropa website [here](#) and [here](#)

This is an interview with [Lizzie Marx](#), one of the curators of the event, Follow Your Nose! A guided tour with smells, which itself was part of the research that contributed to the creation of Odeuropa's Olfactory Storytelling Toolkit: a 'How-To' Guide to Working with Smell in Museums and Heritage Institutions. A big thank you goes to Dr Eva Leistenschneider, Dr Stefanie Dathe, and the entire Museum Ulm staff for the knowledge, dedication, and creativity that they put into this project.

Who is Lizzie Marx?

[Lizzie Marx](#) is the curator of Dutch and Flemish art at [National Gallery of Ireland](#) in Dublin, Ireland. She received her doctorate at the University of Cambridge with her thesis titled [Visualising, Perceiving, and Interpreting Smell in Seventeenth-Century Dutch Art](#). Marx has worked on several olfactory storytelling projects, including [Fleeting - Scents in Colour](#) at Mauritshuis in The Hague, the Netherlands. As a member of [Odeuropa](#), Marx worked on using AI to source historic imagery related to smell and incorporating olfactory storytelling into museum and heritage initiatives.

What was the aim of the use of olfactory storytelling for the Follow Your Nose! tours?

LIZZIE MARX: *Follow Your Nose!* was co-created by the Odeuropa team, [Museum Ulm](#) and [IFF](#). It was in fulfilment with Odeuropa's 'Impact' Work Package which focused on communicating and disseminating the project's outputs and methods through sen-

sory storytelling in GLAMs. Using the research that Odeuropa had carried out, it was possible to identify works in Museum Ulm's collection that also spoke to Europe's olfactory history. For instance, by using computer vision to source works of art that depicted scented gloves. This informed the decision to include the portrait of Helena Schermer where she holds her perfumed gloves as part of the olfactory tour in Ulm.

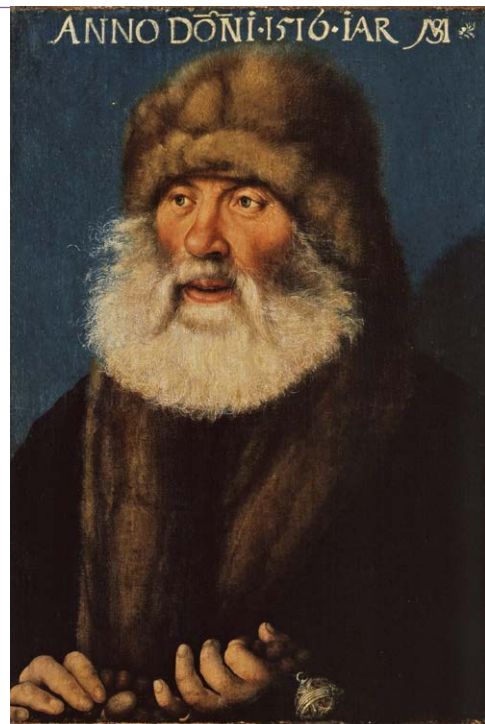


Andreas Schuch, *Portrait of Helena Schermer*, c.1620, Oil on canvas. Image courtesy of Museum Ulm, Germany.

Another main aim of this event was to use it as an opportunity to collect data and measure the impact and value of olfactory storytelling in GLAMs. These questionnaires informed the relevance of sensory experience in heritage initiatives and contributed towards the preparation of *Olfactory Storytelling Toolkit: a 'How-To' Guide to Working with Smell in Museums and Heritage Institutions*.

How and why did you choose the artworks that were interpreted into olfactory storytelling for Follow Your Nose!?

LIZZIE MARX: We were very selective with the artworks and focussed on choosing olfactory storylines that were closely connected to them. For instance, some scents evoked the odours represented in the artwork, such as the [pomander](#) of Eitel Besserer. Others evoked imagined olfactory atmospheres, such as the Smell of Hell in Martin Schaffner's *Christ in Limbo*. There was also an opportunity to explore synaesthesia and the olfactory associations of the colours orange and blue in Ellsworth Kelly's titular painting, *Orange Blue* (1964–1965).



Martin Schaffner, *Portrait of Eitel Besserer*, 1516, Mixed techniques on panel. Image courtesy of Museum Ulm, Germany.

What advice would you give to GLAM professionals who want to use olfactory storytelling?

LIZZIE MARX: It begins with a compelling story. It requires time, and research, but with great rewards. Take, for instance, the stop on the olfactory tour that discussed the *Portrait of Eitel Besserer*.

He is portrayed holding a rosary with a pomander, a scented pendant that was believed to protect from illnesses. The inclusion of this painting in the exhibition required research through historic medical treatises into what sort of ingredients might have com-

prised a sixteenth-century pomander. Breaking down the pomander's recipe into its individual components generated stories about each ingredient, such as the importation of [nutmeg](#) to Europe, or the origins of the [animal-produced ingredient ambergris](#). The unique incorporation of the pomander in the rosary, which Besserer holds, also opened up new avenues of storytelling. For example, the multi-sensory approach to prayer in the Early Modern period (fifteenth until the eighteenth century). In the case of the portrait, the story is compelling because the olfactory is integral to the understanding and interpretation of the painting.

What was the biggest challenge of the scent development process and how did you 'evaluate' if the heritage scents suited their function?

LIZZIE MARX: One of the biggest challenges, but also the most interesting insights into the process, was learning about the terminologies used in the perfume industry. For instance, the scent of leather in perfumery is not akin to [historical tanned leather](#). It is a scent category used by perfumers, defined by smoky, bitter notes, which can be misleading from a historical perspective. It required all of the team members to clearly communicate the aims of the storylines and the qualities of the scents that were being used in the formulas.

The evaluation process was carried out through smelling sessions with Dr Leistenschneider and the Odeuropa team, and then feedback sessions with the perfumers at IFF. As discussed above, it was important to be clear on the story we wanted to tell with each of the stops on the tour. For instance, the aim of Helena Schermer's portrait was to tell the story of her scented gloves. The scents were meant to demonstrate the malodorous process of tanning leather, and the perfumes adopted to fragrance and overpower the scent of tanned leather. It was a fine balance between creating a smell that could evoke the foul smell of tanned leather, and create a fragrance formula that convincingly masked the fouler aspects of leather. Through consultation with Museum Ulm, Odeuropa, and IFF, the IFF perfumers developed drafts of the scent. It took as many as three drafts of the scent until we were satisfied with it.

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Heritage Scents of Museum Ulm's Follow Your Nose!:

Helena's Gloves | mimosa, cypress, myrtle, jasmine, neroli, rose water, orris, incense, amber, musk, civet, tolu
Eitel Besserer's Pomander | rosemary, oregano, cinnamon, rose, lavender, clove, civet, ambergris, musk
The Smell of Hell | cade oil, Indole, skatol, civet, clove bud oil

.....

*These scents were created by [IFF](#) in collaboration with [Museum Ulm](#) as part of Odeuropa.

How and why did you choose your chosen method of smell distribution?

LIZZIE MARX: During the development of the project, we explored several options, including blotters, scented hand fans, and handheld dry diffusion. Handheld dry diffusion was eventually selected, as, unlike a hand fan, the individual user could control the amount of scent diffusion through varying the amount of pumps. While blotters took time to prepare in advance of a guided tour, the handheld dry diffusion method held the scent for far longer than blotters, and did not need to be replenished with scent quite so often.

However, adopting the handheld dry diffusion method for the tours presented some issues: when the containers were in storage, they were kept in airtight containers. Dr Leistenschneider reported that the scents were “leaking” and, as they were stored near the museum’s offices, they were proving to be disruptive to the staff’s work environment. While they were the most effective method for the guided tour, specialised storage needed to be taken into consideration.



Museum Ulm’s curator, Dr Eva Leistenschneider using handheld dry diffusion to sniff the Smell of Hell in front of Martin Schaffner’s, *Christus in der Vorhoelle (Christ in Limbo)* from 1519. Photo credit Sofia Collette Ehrich.

Did you develop malodors as a part of Follow Your Nose!?

LIZZIE MARX: Yes, we developed two malodours for the tour and two further scents that were considered neutral, but turned out malodorous for certain participants. For Martin Schaffner’s painting *Christ in Limbo*, we developed a scent to evoke the Smell of Hell. While the scent was one of the most repellent on the tour, it received one of the strongest responses. Developing a fragrance that represents a concept that is familiar to the visitor yet has an unknown smell can generate an enthusiastic response.

We were mindful that the olfactory tours are a cultural activity that should surprise and enrich but not disturb. Working with perfumers who are trained to design fragrances rather than malodors, was helpful in this regard. They were adept in ensuring that the malodorous scents were notably unpleasant and generated discussions from the participants, but not intensely foul enough that participants no longer wished to continue on the tour.

When conducting an olfactory guided tour, how do you usually present the scents in relation to the olfactory history, relevance, and storytelling?

LIZZIE MARX: The order of telling the story and sampling the smell was not prescriptive and could vary according to the needs of the storyline. It was advised that tours started and ended with a pleasant or neutral scent, and that a balance of malodorous and pleasant scents were used, with preference of pleasant scents. It is usually helpful for a guided tour to provide the (historical) context of the scent before sampling it, so as to anchor the associations of the fragrance to the storyline. However, there are advantages to sampling the scent in advance of sharing the storyline. The smell of the pomander, for instance, is a complex scent that consists of many ingredients. Asking participants to smell the fragrance and then share their initial



Martin Schaffner, *Anastasis / Christ in Limbo*, 1549, oil on panel. Image courtesy of Museum Ulm, Germany.

impressions of what ingredients they could identify was an opportunity to stimulate discussion among the group. The experience of the scent is then further enriched by providing the storyline.

During the guided tours, how did the different target groups respond to the smells and the space differently?

LIZZIE MARX: I noticed that senior visitors of the guided tour had particularly nostalgic associations with the scents. The rose elements from Helene Schermer's scented gloves reminded certain participants of the fragrances worn by their mothers or grandmothers. In another case when I

observed a selection of guided tours, I was impressed to see how engaged a final-year school group was. Dr Eva Leistenschneider, the curator of Museum Ulm, who was also instrumental to the development of the tours, said this was exceptional for a guided tour of their age group. This suggests that the smells of the olfactory guided tour kept their attention.

What precautions did you take to ensure a safe experience for the GLAM's staff, visitors, space, and collection?

LIZZIE MARX: When a malodour was diffused, participants were given due warning. Tour guides were also encouraged to note to participants how evocative scents can be in reviving particular memories – some positive, but also negative. Preparing visitors helped to work through any unexpected responses to the scents.

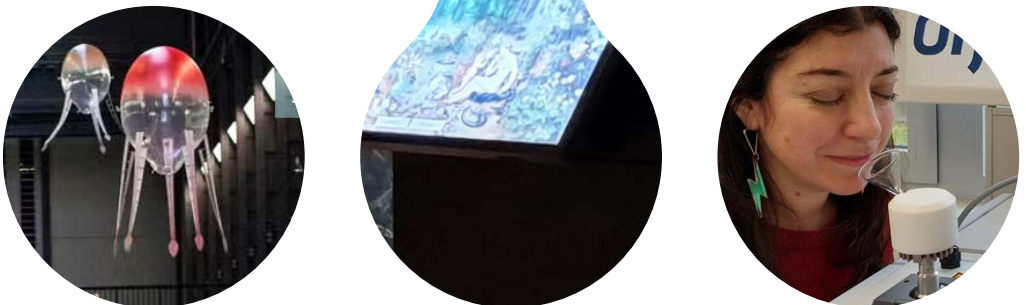
How does safeguarding of olfactory heritage and engagement with smells contribute to worthwhile storytelling in GLAMs?

LIZZIE MARX: When smell is integral to the meaning or interpretation of an artwork or object, engaging with the smells that they reference adds an entirely new dimension to the experience. It can deepen our understanding of history and heritage, and can bring it to life. Incorporating smells into GLAM initiatives also creates the possibility for new audiences to create meaningful connections with the collection.

The olfactory is a large but, until only recently, neglected part of our heritage. If it is not safeguarded, then we are at risk losing a significant part of our heritage. Getting acquainted with olfactory heritage presents an opportunity to understand and engage with the past in new and exciting ways. Showcasing elements of olfactory heritage presents research that is both novel and engaging, and creates opportunities to draw in new audiences to cultural heritage institutions.

4

ASSESSING RISKS





How should you approach the potential risks of olfactory storytelling and minimise them? In general, museum professionals are not familiar with olfactory storytelling techniques. As until now, there are no standardised practices to meaningfully do so, nor dedicated evidence of the impact that the introduction of scents can have on heritage spaces and the collections and visitors within. Although there are valuable instances of olfactory engagement in heritage institutions, some heritage professionals remain reluctant to make use of the possibilities brought on by olfactory storytelling due to the risks and barriers related to inexperience or lack of access to reliable resources.

When planning to use olfactory storytelling, most heritage professionals, surveyed by an Odeuropa study conducted in 2021, preferred to introduce new fragrances over working with already existing scents in the collection or heritage space. Therefore, this section focusses on the introduction of new smells in the museum as opposed to working with the smells emanating from existing artefacts and spaces. These can, of course, also play a valuable role in olfactory storytelling.

In this section, we will explore the risks associated with olfactory storytelling in GLAMs, and how to mitigate them. This section is most effective when approached together with the GLAMs preservation department. We start this section by offering some aspects to consider when selecting a scent and their presentation technique as well as how these are risks. Next, we offer a visual guide to assist you to identify these risks. Lastly, we provide methodologies for conducting your own risk assessment studies when using olfactory storytelling.

CHAPTER 1	CHAPTER 2	CHAPTER 3
Considerations for selecting scents and their presentation techniques.	How to identify and mitigate risks in heritage spaces?	How to assess risks and develop mitigation strategies?
What potential risks should you consider when designing an olfactory event? This section outlines what is important to consider when choosing heritage scents and their technique of presentation.	Through the description of three case studies, this section offers a visual guide for identifying and mitigating potential risks of olfactory storytelling.	This section offers descriptions of strategies that can be employed to further identify and mitigate risks in cases of olfactory storytelling.



CONSIDERATIONS FOR SELECTING SCENTS AND THEIR PRESENTATION TECHNIQUES

In section 3, we outlined a range of smell presentation techniques and outlined their effectiveness and relevance for different forms of olfactory storytelling, as well as practical aspects like the amount of resources and their intensity. There are different aspects to be considered when selecting scents and presenting them within heritage spaces:

- **Consider the potential risks of the chosen diffusion technique:** Is the scent presented via environmental or mobile diffusion and how are participants invited to engage with that technique? *Environmental diffusion* allows molecules to travel freely through the air, which effectively fills the space with scent. This can potentially (negatively) interact with the collections and people within. For example, visitors could find scents too intense or not intense enough. *Mobile diffusion* presents the scent in a more contained and controlled manner, often allowing the visitor and/or heritage professional to control the experience and how the space and collection is exposed to that scent (e.g. the amount, from what distance and for how long).
- **Consider the risk of scents lingering in the space:** The scents and chosen presentation method can linger and mix around the olfactory port (opening where a scent comes out of a scent machine) or in the gallery because of supply handling and storage for an olfactory event. This can impact and potentially reduce the quality and impact of olfactory storytelling and user experience.
- **Consider the risk of scents 'leaking' into other spaces:** When using olfactory storytelling techniques, there is a risk that the scents will travel into spaces where the olfactory event is not on display. This can affect the visitor experience in other parts of the heritage institution and cause annoyance.
- **Consider the risk it poses to the collection itself:** This form of olfactory storytelling introduces volatile organic compounds (VOCs) into the space, which were not there before. This can pose certain risks to the heritage space and collection. Additionally, certain presentation methods require interaction with bottles of fragrance, increasing risk of spilling in the gallery space.



Abraham MIGNON 1673
17, rue de la Harpe
75001 PARIS



HOW TO IDENTIFY AND MITIGATE RISKS IN HERITAGE SPACES?

Through a selection of 3 real scenarios, we will identify potential risks associated with olfactory storytelling and how to develop strategies to mitigate these risks. We have selected a variety of scenarios to consider space, smell presentation technique, and surrounding environment. Please note that, while the photographs depict real-world cases, descriptions of the potential risks and mitigation strategies are purely hypothetical and not supported at this stage by scientific data.

~ RISK ASSESSMENT SCENARIO 1 ~



Overview of *The Essence of a Painting. An Olfactory Exhibition*. Photo credit Georgios Alexopoulos.

This image depicts the exhibition, [The Essence of a Painting. An Olfactory Exhibition](#) at the [Museo del Prado](#) in Madrid, Spain, between May and July 2022. This exhibition was curated by [Alejandro Vergara](#), Chief Curator of Flemish Painting and the Northern Schools at the Museo Nacional del Prado, and [Gregorio Sola](#), Senior Perfumer at [Puig](#) and an academician of the [Academia del Perfume](#).

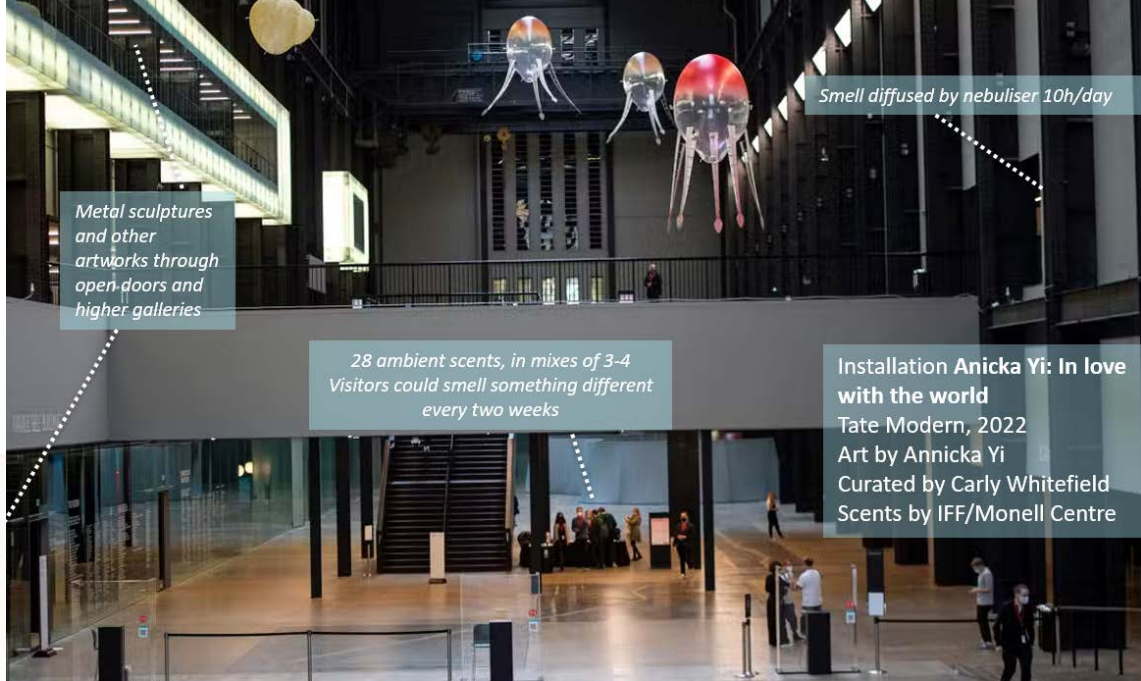


Smell presentation devices in the gallery for *The Essence of a Painting. An Olfactory Exhibition*. Photo credit Cecilia Bembibre.

The exhibition focused on [The Sense of Smell](#) (1617-1618), a painting by Jan Brueghel 'the Elder' and Peter Paul Rubens, which is part of their series about the five senses. The artwork on the wall (top right of the image) was echoed by a digital image of the painting included in the device visible on the left of the image. On the screen, the visitors were presented with ten highlights of the painting. By clicking on each highlight, scents were dispersed on demand, which would release a burst of scent from the port placed at nose level. The fragrances were developed by perfume house Puig and the presentation technology is proprietary from Spanish company [AirParfum](#). The exhibition made an impact, receiving an average of 100 visitors per hour, who in turn sniffed an average of 3 smells during their stay in the gallery.

From observing the case above, the potential risks to be considered are:

1. The possibility of smells lingering and mixing around the olfactory port or in the gallery, reducing the quality and impact of olfactory storytelling and user experience.
2. Leakage of smell into the adjacent galleries.
3. The impact of the newly introduced VOCs to the space and the existing artworks – particularly paintings.



Metal sculptures and other artworks through open doors and higher galleries

28 ambient scents, in mixes of 3-4
Visitors could smell something different every two weeks

Smell diffused by nebuliser 10h/day

Installation **Anicka Yi: In love with the world**
Tate Modern, 2022
Art by Annicka Yi
Curated by Carly Whitefield
Scents by IFF/Monell Centre

Overview of *Anicka Yi. In Love With The World* exhibition. Photo courtesy of the Tate Modern.

~ RISK ASSESSMENT SCENARIO 2 ~

This image depicts the exhibition [Anicka Yi. In Love With The World](#), held at the [Tate Modern](#) in London, UK, between October 2021 and January 2022. This exhibition was curated by [Achim Borchardt-Hume](#), Director of Exhibitions and Programmes, [Mark Godfrey](#), former Senior Curator, International Art, [Carly Whitefield](#), Assistant Curator, International Art, and [Petra Schmidt](#), Production Manager.

During this exhibition, the Turbine Hall housed a series of smellscapes via environmental diffusion, which were designed by [Anicka Yi](#) to evoke the history of the site throughout time. There were a total of 10 smellscapes, with 4 of them repeating. Fragrance was constantly diffused into the space throughout the entire time that the gallery was open to the public (from 8am to 10pm).

The scents were developed by a team at the [Monell Chemical Senses Center](#), led by [Pamela Dalton](#), and additional scents were provided by [IFF](#). Around 53 litres of scented oils were used in this exhibition. The smell presentation technology was a bespoke system from US-based company [Oil Works & co](#).





Smell diffusion device in the gallery for Anicka Yi. In Love With The World exhibition. Photo credit Will Burrard Lucas.

- From observing the case above, the potential risks to be considered are:
- The possibility of visitors finding the scents overpowering or too subtle, reducing the quality and impact of the olfactory storytelling, and hence the overall visitor experience.
 - The impact of the newly introduced VOCs to the space and the existing artworks – particularly metal sculptures.
 - Leakage of smell into the adjacent galleries.



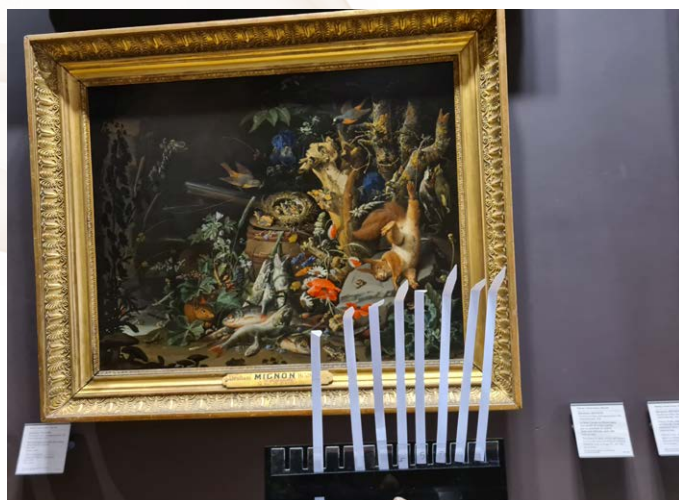
Overview of the olfactory guided tour *A History of Still Life from Prehistory to the Present day*. Photo credit Cecilia Bembibre.

~ RISK ASSESSMENT SCENARIO 3 ~

This image depicts the olfactory guided tour, *A History of Still Life from Prehistory to the Present Day* which accompanied the exhibition *Things. A History of Still Life*, held at the [Louvre Museum](#) in Paris, France, in April 2023. The exhibition was curated by [Laurence Bertrand Dorléac](#) and the tour was led by perfumer [Carole Calvez](#) of Iris & Morphee, who also developed the scents.

During the 90 minute tour, participants explored the permanent collection in the museum under Calvez's guidance and expertise. Throughout the tour, the group paused in front of various selected artworks to experience an olfactory interpretation of each. A total of 10 fragrances were distributed via blotters, which were immersed in the scented oils on the spot by the tour guide before being passed to the tour participants.

In addition, participants were provided with a small plastic holder (below) to hold the blotters. While the first approach to smelling each fragrance was done in silence, conversations about the art and the olfactory interpretations were encouraged after a few minutes of reflection, leading to audience participation and high engagement.



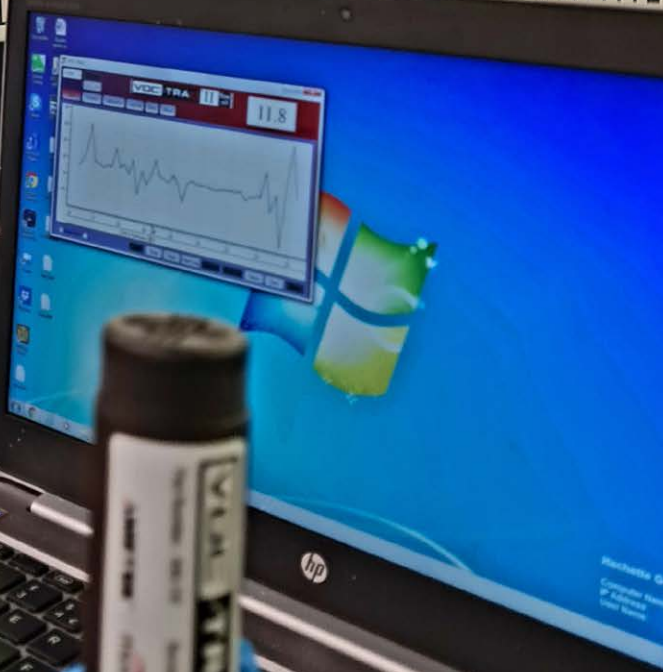
The blotters and plastic holders which were provided to participants during the olfactory guided tour, *A History of Still Life from Prehistory to the Present day*. Photo credit Cecilia Bembibre.

From observing the case above, the potential risks to be considered are:

- Visitors may find the interaction with blotters while following the narrative of the tour difficult, reducing the impact of the olfactory storytelling and the quality of the visitor experience.
- The impact of the newly introduced VOCs to the space and the existing artworks – particularly paintings.
- Leakage of smell into the adjacent galleries.
- The risk of a fragrance spilling during the smell presentation process.

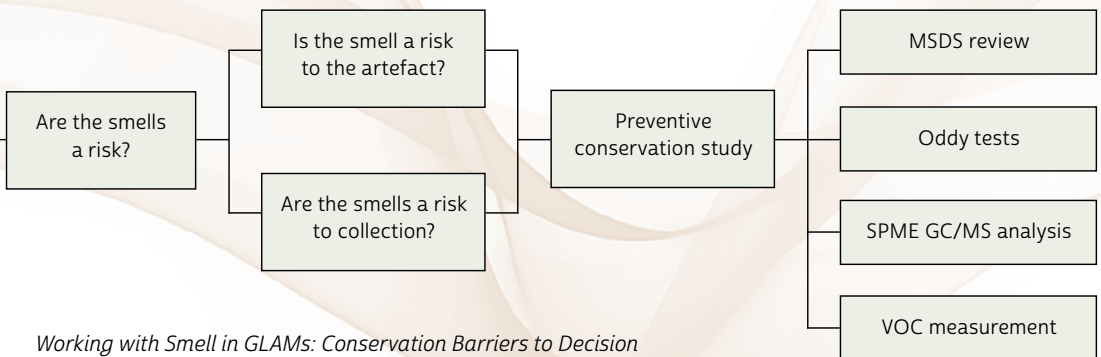


NATALIE BELL BUILD




HOW TO ASSESS RISKS AND DEVELOP MITIGATION STRATEGIES?

To address the concerns identified in the 3 scenarios above, as well as other similar scenarios, we developed, *Working with smell in GLAMs: barriers to best practices matrix* (found in [D6.1 Guidelines on the use of smell in GLAMs](#)). The matrix provides a pathway for heritage professionals who are interested in olfactory storytelling techniques and helps to investigate and develop evidence that addresses the potential risks of these actions. Identifying these risks can inform discussions and decisions around olfactory storytelling.



Working with Smell in GLAMs: Conservation Barriers to Decision Pathway. Figure originally published in Odeuropa's Deliverable D6.1 'Guidelines on the use of smell in GLAMs.'


The conservation or scientific departments of GLAM institutions, who focus on the care and protection of heritage locations and the collections within, often encounter smells during condition assessments and the treatment of heritage artefacts and materials. This implies that they already shape and guide their expertise via diagnosis by smell. While this nose-first expertise is developed as part of professional practice and is often informal or done unknowingly, it is nonetheless a valuable source of information. Identifying such processes can stimulate conversations with colleagues of different departments and can offer



a valuable and fresh perspective for the curatorial team looking to develop an odour-based display or experience. In recent studies, one of the main questions of interest for conservators regarding working with olfactory storytelling and scented materials is whether these aspects pose risks to collections. This is valid, for example, when faced with an artefact which carries scented materials or has a notorious scent, and in the case of an olfactory installation co-existing in the same gallery as other collection items. If these olfactory aspects of collections are routinely avoided or considered insignificant to the object's identity, then awareness and training around these aspects are not established, which might result in the disappearance of culturally significant smells and their olfactory history.

There is a body of scientific evidence that can inform decisions and help mitigate risk and prevent hazards: [published conservation guidelines](#), for example, provide safe concentration limits for pollutants in museums. In the case of VOCs – which are responsible for perceivable aromas – evidence shows that most VOCs do not pose a risk in low concentrations, which can still be perceived by the human nose. Currently, [heritage science](#) research groups – the interdisciplinary domain of scientific studies of heritage, aiming to enhance its understanding, care and sustainable use – are developing scientific evidence around the impact of fragrances on varnishes, metals, and other materials relevant to heritage collections.*

Following the *Working with Smell in GLAMs: Conservation Barriers to Decision Pathway* to investigate potential risks of olfactory storytelling, we outline and define some of the best practice approaches to assist risk assessment.






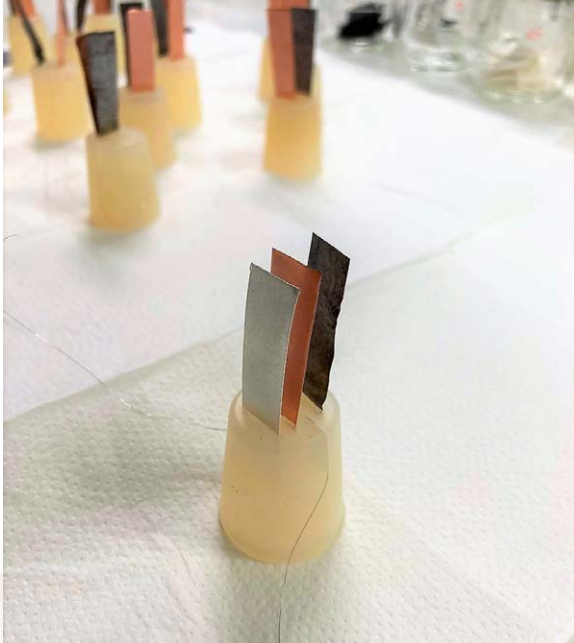
* In addition to the work that Odeuropa has carried out in this regard, there are promising studies in progress by the researchers of the Odotheka project.

MATERIAL SAFETY DATA SHEET (MSDS)

When GLAMs source scents from a fragrance supplier, scent designer, or a chemical supplier (who usually sell to laboratories), Material Safety Data Sheets (MSDS) are provided. These documents detail information relating to occupational safety and health, which in GLAMs, relate to the safety for the staff and visitors. Screening these documents for known hazardous substances (together with the GLAM's scientific department) can provide valuable information for a risk assessment. In addition, MSDS can be shared with visitors upon request to help inform their personal decision to interact with the substances and better understand chemical sensitivities. See [here](#) for a guide on how to read MSDS.

A Material Safety Data Sheet supplied to Odeuropa by IFF for the Pomander scent used in *Follow Your Nose!* Image courtesy of Odeuropa.

SAFETY DATA SHEET			
according to Regulation (EC) No. 1907/2006			
ODEUROPA Pomander			
Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	23.06.2022	300001017918	Date of first issue: 23.06.2022
SECTION 1: Identification of the substance/mixture and of the company/undertaking			
1.1 Product identifier			
Trade name	:	ODEUROPA Pomander	
1.2 Relevant identified uses of the substance or mixture and uses advised against			
Use of the Substance/Mixture	:	Fragrance for consumer product	
1.3 Details of the supplier of the safety data sheet			
Company	:	IFF (NEDERLAND) BV ZEVENHEUVELEWEG 60 5048 AN TILBURG	
Telephone	:	+31134642211	
Telefax	:	+31134636032	
E-mail address of person responsible for the SDS	:	sds@iff.com	
1.4 Emergency telephone			
+31 13 4642 211			
SECTION 2: Hazards identification			
2.1 Classification of the substance or mixture			
Classification (REGULATION (EC) No 1272/2008)			
Skin irritation, Category 2	:	H315: Causes skin irritation.	
Eye irritation, Category 2	:	H319: Causes serious eye irritation.	
Skin sensitization, Category 1	:	H317: May cause an allergic skin reaction.	
Long-term (chronic) aquatic hazard, Category 2	:	H411: Toxic to aquatic life with long lasting effects.	
2.2 Label elements			
Labeling (REGULATION (EC) No 1272/2008)			
Hazard pictograms	:	 	
Signal Word	:	Warning	
1 / 23			



Silver, copper, and lead metal coupons ready to be exposed to the scented environment during Oddy testing. Photo credit to Cecilia Bembibre.

ODDY TESTING

Sometimes MSDS are not available, or not complete enough to identify potential hazards. In these cases, Oddy testing, which can be conducted in collaboration with an internal or external scientific team, can provide further evidence of risk. This method was originally developed for evaluating the suitability of construction materials to be used in an enclosed space with heritage artefacts or artworks. It tests the presence of potentially damaging gases by exposing three metal coupons (one lead, one copper, and one silver) to the chosen test material for 28 days. After this, the metal coupons are assessed for changes: the silver coupon can detect reduced sulphur compounds, the lead coupon can detect organic acids, aldehydes, and acidic gases, and the copper coupon can detect chlorides, oxides, and sulphur compounds. A detailed explanation of this test can be found on the website of the [Canadian Centre for Occupational Health and Safety](#).

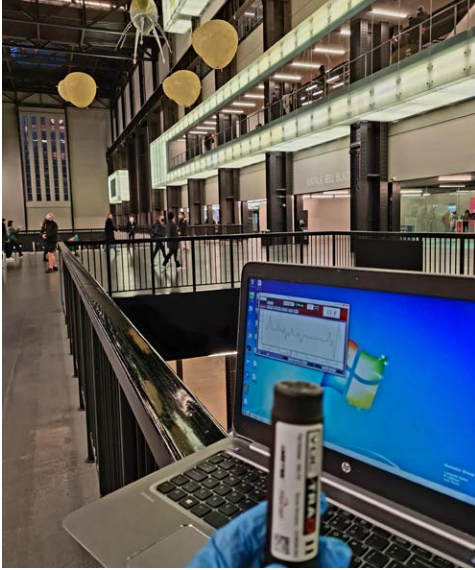


GC-MS analysis with olfactometric detection being conducted in an assessment study of smells in a museum. Photo courtesy of Cecilia Bembibre.

VOLATILE ANALYSIS

When the composition of a scent is unknown, VOC sampling coupled with an analytical separation technique (e.g. GC/MS) can offer insights into the qualitative nature of the odour. It can also inform approaches to working with smell, since certain VOCs, particularly low molecular weight carboxylic acids such as formic and acetic acid, are known hazards to museum objects. The technique of solid-phase microextraction followed by gas chromatography-mass spectrometry analysis (SPME GC/MS) has been proved helpful to characterise VOCs in historic objects. In addition, the complementary technique of gas chromatography-olfactometry (GC-O) enables simultaneous sensory analysis of the same sample, revealing an idea of how the visitor may experience it.





An image of VOC measurements taken during an olfactory exhibition at Tate Modern in London, UK. Photo credit Cecilia Bembibre.

VOC MEASUREMENT

A measure of the total VOCs in a space can provide a baseline to establish changes brought by ventilation, perfume-wearing visitors or the introduction of olfactory storytelling. [The Canadian Conservation Institute](#) advises that, since “no generic VOCs have [...] been linked to specific types of damage in conservation” and that in order to “better preserve collections, the focus should be on the concentration of specific pollutants in the room or inside a display case rather than on the total amount of VOCs” (see previous section on methods to identify and quantify specific VOCs). It must be noted that VOC sensors cannot measure inorganic odorants, such as sulphur-related compounds.

Although this section describes the possible risks that might come with olfactory storytelling practices, it is important to remember that bringing and retaining scents within heritage spaces usually does not cause disturbance – especially when putting these methods in place in a cautious and deliberate way. As mentioned above, previous research evidence has shown that many VOCs do not pose a risk to collections. In most cases scents are diffused in low concentrations which are still perceivable by the human nose. At the same time research into these topics is ongoing. Odeuropa’s *Olfactory Storytelling Toolkit: A ‘How-To’ Guide for Working with Smells in GLAMs*, offers many tips and tricks that assist in creating an olfactory event that suits the needs of different types of heritage institutions and can be tailored for different curatorial comfort zones and safety situations. It is always important to test and evaluate olfactory storytelling schemes on the desired target audience and be ready to adapt to different situations and cases as they come along.

INTRODUCTION TO

*Smell
Manifestos*

“One has to strengthen the idea,
the word, the act not just with
sensations of sounds, noises, colours,
shapes, but also with the
sensation of smell.
Concrete and abstract.”

– *Ennio Valentinelli, 1915*

**Overcome Odourphobia – Educate the nostrils.
Historical Smell Manifestos, for the Present, and Future**

The year 1909 is seen as the year that the artist's manifesto was invented by Filippo Tommaso Marinetti, founder of Italian Futurism. It ushered in an entirely new genre in art history. Marinetti saw the manifesto as a way to stimulate societal and cultural change, something formerly reserved for politicians. Marinetti's invention became a template for other artists and their movements.

Traditionally, manifestos are characterised by a point-by-point enumeration of everything a group favoured and opposed, as well as a description of practices followers must meet to be 'future proof.' Manifestos propagated new forms of education, proposed the reorganisation of 'old' institutions such as traditional museums, churches, art, universities, fashions, and eating habits.

The Art of Scent

The Futurists were the first group to publically embrace and legitimise the sense of smell via manifestos. In 1913, Carlo Carrà wrote about the possibility of painting sounds and smells in *La pittura dei suoni, rumori, odori* [*The Painting of Sounds, Noise, Smells*]. He argued that the tiniest whiff of scent can ignite creative processes. Two years later, in *L'arte degli odori – Manifesto futurista* [*The Art of Smells – Futuristic Manifesto*], Ennio Valentinelli presented smell as an autonomous tool for storytelling, poetry recitals, and artmaking. Valentinelli had a grand olfactory vision that included the use of smell – not only fragrances but also stench - in daily life and society. Valentinelli was interested in historical olfactory customs, which he took as inspiration for the future, to envision a more versatile application of scent. He came up with the idea to create scent narratives, which Valentinelli described as “uniodorità” or a neologism combining ‘unione’ [fusion] and ‘odore’ [scent]. He suggested that we should align scents with the function of buildings. He proposed two principles: firstly, we must “educare le narici!” [educate the nostrils!] and secondly, we must overcome our ‘odourphobia’ (our fear of (mal)odours).

The manifestos by Carrà and Valentinelli have served as historical inspiration for many artists, scholars, and perfumers in the past decade. Odeuropa has taken inspiration from these historical manifestos: to overcome odourphobia, educate the nostrils, ‘paint with smells’ and develop olfactory storytelling that aligns with museums, schools, and other (public) spaces.

For the *Olfactory Storytelling Toolkit: a ‘How-To’ Guide to Working with Smell in Museums and Heritage Institutions*, we invited four olfactory experts, an artist, a philosopher, a perfumer, and a neuroscientist to write their own smell manifesto. Their utopian tone makes these manifestos mirror their historical predecessors - rejecting a purely ocularcentric approach to art, museums and education, and promoting the use of scent as a fruitful medium for storytelling and safeguarding heritage. Just like Valentinelli, these visionaries or *olfactionaries* learn from the past, embrace smell, and exemplify how we can employ the full potential of this powerful but least understood sense: for the present and the future.

Manifesto

The Persuasive Power of Smell

Jane Plailly



Photo courtesy of Jane Plailly.

Jane Plailly

Cognitive Neuroscientist (CRNL, Lyon, France)

[Jane Plailly](#) holds a PhD in Cognitive Science and is a CNRS researcher in the team [Olfaction from Coding to Memory](#) at the [Lyon Neuroscience Research Centre](#) (CRNL, Lyon, France). She has been working for more than 20 years on the links between olfaction, emotions, and memory and studies this relationship not only by questioning human behaviours but also by exploring the physiological and neural bases of these behaviours. She is particularly interested in the specificities of the sense of smell compared to other senses.

One winter morning, we step out onto our doorstep and a smell catches us, accompanied by a complex emotion. This smell is only a thin trace – almost imperceptible. We then close our eyes, take a deep breath and the smell is here, sweet and soft. As for the emotion, it feels like an awakening and an excitement. Although it seems improbable, since no other evidence than this delicate olfactory thread confirms it, spring is about to spring! It smells like spring! Smell has the power to make us experience realities that do not yet exist for our other senses and this power awakens me...

This is not the only talent attributable to the sense of smell. Smells also have the power to make us relive past realities with force, as they can be vivid reminders of autobiographical memories. This is known as the so-called '[Proust's phenomenon](#),' named after Marcel Proust whose writings brilliantly illustrate how a smell alone can be the cause of a sudden relapse into a memory of our past. Researchers in psychology and cognitive neuroscience have studied this phenomenon by comparing memories evoked by smells to memories evoked by other cues such as images, sounds, music, words, or tactile perceptions. Although still subject to debate, research findings suggest that memories evoked by smells are more emotional, accompanied by a stronger feeling of time travel and are recalled less often, making them striking, and deeper. Memories evoked by odours are primarily associated with early childhood, whereas memories associated with other sensory cues are predominantly associated with adolescence and young adulthood. It is important to note, however, that although smells have the power to raise memories with very specific characteristics, they generally generate fewer memories than other cues.

Whether it is a past or an upcoming event, smells make an event tangible. Why does smell have this persuasive power? One hypothesis is its connection to emotions. The perception of an odour generates a *de facto* emotional response of rejection or attraction – probably to promote the survival of our species by influencing mate choice or by allowing us to avoid predators and poisoning. This emotional response takes place even before the identification of an odour, which is often uncertain.

Although the research by neuroscientists working on the reasons behind the power of odours is still in its early stages, it allows advancing the following hypotheses. A first hypothesis is the anatomical proximity between the brain regions dedicated to olfaction, emotion and memory. The amygdala is crucial for emotional processes and the entorhinal cortex is a gateway for the hippocampus, a key region in memory processes. Both parts are the ensemble of the so-called 'primary olfactory' regions or the first brain regions integrating the information conveyed by the capture of the odourant molecules by their receptors in the nose.

Moreover, not only the olfactory and the memory brain regions are extremely close anatomically, but they are also strongly interconnected and emerged simultaneously during evolution. Another hypothesis is the absence of thalamic relays. The thalamus is a brain region that allows the filtering of sensory information before it is integrated by the primary sensory regions. While visual, auditory, gustatory and tactile information is previously sorted and pre-processed by the thalamus, olfactory information is processed as is, in its raw state.

Finally, among all the particularities of the sense of smell, what appeals to me the most is the extreme diversity by which each person can experience the same olfactory reality. Gene coding for olfactory receptors are extremely variable between individuals, contributing to a unique ensemble of receptors capturing chemical odours that provides us each with a personalised perception of our olfactory environment. If I dare to use a colour analogy, I would say that when I smell royal blue, you may smell soft green. This subjective nature together with the unique connection between smell, emotion and memory, adds a sense of intimacy to olfactory perception.

The sense of smell is unique compared to the other senses. Research is gradually disclosing the specificities of this sense and revealing it as a privileged entry to what makes us unique and singular, emphasising our own experience, our intimacy, and our individuality. However, olfaction remains a sense that conceals many mysteries. The work of neuroscientists is crucial for a better understanding of it and to guide us towards an optimal use of the sense of smell in our daily lives.

Manifesto

Honouring the Multifaceted Sense of Smell

Annick Le Gu er



Photo courtesy of Annick Le Guérer

Dr Annick Le Guérer

Academic, anthropologist, and philosopher

<https://annickleguerer.com/>

Dr Annick Le Guérer is an anthropologist and philosopher as well as a specialist of the sense of smell, odours, and perfume. She is also an associate member of the University of Burgundy, France, and a member of the Scientific Committee of the Osmothèque, France. Through her books and exhibitions, she has sought to restore the sense of smell and perfume to their rightful place.

Through my books and exhibitions, I have tried to honour the position of smell and perfume: by analysing the reasons for the discrediting of olfaction for centuries by a vast majority of philosophers, psychoanalysts, and scientists; by showing the complexity of perfume and its high cultural status, and by removing it from its supposed sole seductive function. Today perfume has become part of artistic activities and, after a long eclipse, in medical care. As for the sense of smell, it is now completely rehabilitated and we are increasingly attentive to olfactory heritage as long as we open the doors to history.



Manifesto

Diary of Smells:
Olfaction as an Experiential Medium
2010-2023

Josely Carvalho





Teto de Vidro / Glass Ceiling, 2018, Museu de Arte Contemporânea, MAC/USP, São Paulo, Brazil. Photo credit João Caldas.

Josely Carvalho

Olfactory Artist

www.joselycarvalho.com

[Josely Carvalho](#) is a Brazilian multimedia artist with studios in Rio de Janeiro, Brazil, and New York City, USA. In the last five decades, her art has embraced several mediums, highlighting memory, identity, women issues, and social justice while also challenging the crossings between the artist, the public, art, and politics. Her current project [Diary of Smells](#), is an on-going, cross-disciplinary series of works where olfaction is a protagonist amongst other typically dominant components within contemporary art. Her latest individual exhibits are: [Within the Smells of History](#) at [Museu Histórico Nacional](#), Rio de Janeiro, 2022-2023; [Suspensio: an interruption of time](#) at [Olfactory Art Keller Gallery](#), New York City, 2021; [Diary of Smells: Diary of Smells: Affectio](#) at [Museu Nacional de Belas Artes](#), Rio de Janeiro, 2019; [Diary of Smells: Teto de Vidro](#) at [Museu de Arte Contemporânea](#), São Paulo, Brazil, 2018.

A manifesto format of writing is, for me, too didactic to express the intimacy and elusiveness of the sense of smell. I prefer to present fragments of an open diary, with space for changes. On the right side, you find parts of this open diary – *Diary of Smells* – while on the left side is a new added response to these entries. Names of relevant smells are highlighted in the centre.

Contemporary art has privileged the senses of vision and audition, and it has been my mission to include olfaction in this scenario. We live in a world of flux. Olfaction affects me by its fluidity, instability, and openness to multiple interpretations.

*Time and space. Memory and history. Body and embodiment.
Political and social momentum.*

*These are the issues that weave making art for me.
The female body is the first map.*

I could say that olfaction is also an art of the in-between. It exists in the crevices. It intertwines present and past experiences. It is capable of anticipating the future. Its interactivity is physical and emotional.

Smell embraces us haptically. It invades us. We cannot escape.

As Friedrich Nietzsche put it, “My genius is in my nostrils.” To smell is a form of meditative engagement with the act of thinking. Smells contextualise and reinforce the content of my installations.

Because smells are sensed and interpreted differently, I do not seek to replicate an existing odour but rather to explore the possibilities of conceptual smells.

*My first olfactory memory caused me to create *Smell of Fish*, an installation/performance born from the connection between olfaction, prejudice placed on women’s desire, and a retrieved grandma’s memory. There was no smell, only its memory. At the openings, I served mini codfish cakes. (1983)*

NEST * WET EARTH * OPEN OCEAN * HOT SUN

The womb/nest is the place where the sense of smell meets the primal necessity for protection. Shelter is the first place where we learn to affect and to be affected by others.

We smell throughout our life. The body inhales the last smell at the same time as it exhales the last breath. Death is associated with odours that others experience; as our physical body shuts down, it begins the process of decomposing. Decomposition is often camouflaged by the smell of flowers.



Diary of Smells: Passages, 2011, SESC São Carlos, São Paulo, Brazil.
Photo credit Sung Pyo Hong.

BURROW * SUSPENSION * INCENSE II * EMPTINESS

We are living in a moment of political, environmental, health, and social crisis. The pandemic interrupted the rhythms of daily life, placing us all in a state of suspension.

It led me to find refuge in my garden. I watched wild birds come to eat from the bushes and fly in the open air. I sniffed the fermented scent of lantana flowers near my window.

[...] Burrow is an animalic scent, made of dark notes that transport us inside the protective nest of the earth. Incense II calls to mind the freshness of forests and tree resin. Emptiness interprets the discomfort of feeling displaced in space and time.

Suspension is the duality of being cocooned while facing danger and risk.

Where do the birds fly when death screeches at them? (2021)



Suspensio, an interruption in time, 2021. Olfactory Art Keller, New York City, USA. Photos credit Alex Trippe.

ABSENCE * PERSISTENCE * PLEASURE
EMPTINESS * ILLUSION * AFFECTION

Like poetry, smell provokes individual interpretations. It requires tranquillity to savour and distinguish the many layers of meaning hidden in its composition. Because of our limited vocabulary for olfaction, we rely on metaphors, stories, fantasies, and poetic associations to create and describe it. The visual imagery of a text can be transposed to smells.

One after another the wine glasses broke, and I kept the pieces without questioning why. Very early one morning, I arranged some of the broken goblets on the old back marble fireplace... right underneath my self-portrait, Upside Down.

In that moment, I caught an odour of mother's sour breast milk from one of the glasses and I started this olfactory book project. It was the beginning of a search for the stories recalled through a faint smell emanating from the glass shards. Now I question why I save glass shards.

*Could it be the need to have at hand a weapon to puncture or dig into the arteries?
Or would the slivers be a placid nest for memory? (2012)*



Estilhaços/Shards, 2012. artist's book, ed: 100. Six smells based on six texts as memories of the moment a wine glass breaks. Photo credit João Caldas.

Our relationship to smells tracks cultural values. The power of smell lies in the gift of connectivity, in its capacity for conveying thoughts and feelings from the unconscious to the conscious. Even though throughout modern times, smell has been presented as a tool and a marker of social division, social inferiority, and elite domination.

I extend the space of my installations through ‘Smell Walks,’ meditations in movement, to connect the private to the public. This form of olfactory awareness empowers our perception of social, cultural, and urban differences. As an ethnologist, I looked for olfactory signals to unravel forgotten memories amongst the inhabitants of Viana, a town in the state of Espirito Santo in Brazil. We jointly established an olfactory map of the different communities in the area during my three months’ residence. A geography of smells. A rescue of a forgotten discipline. (fragment from Diary of Viana, 2011-2012, at my residence, “What are the smells that bring the memories of a town?”)

**INVASION * DELIRIUM * MOUTH OF DEATH * RAINFOREST
CANNONBALL * FEAR**

As an abstraction, smell travels through time, entering the realm of history. Because of its invisibility, it explores the intangible. We sniff to smell.

I invisibly transform the mouths of 20 military cannons, symbols of European colonial power, thinking of them as time tunnels. I wonder what secrets have been forgotten beneath the smooth darkness of these obsolete lingams, symbols of military, economic, and sexual power. I search inside their rusty iron walls, where I find persistent reverberations today of pervasive violence, racism, unequal economic power, fundamentalist doctrines, the dismantling and extermination of cultures, and the many incentives to resort to weapons, all of these characteristics still present in Brazilian culture.

(Within the Smells of History, 2020-2022, Museu Nacional Histórico, Rio de Janeiro)



Within the Smells of History,
2022. Museu Histórico
Nacional, Rio de Janeiro, Brazil.
Photo credit Pat Kilgore.

Manifesto

**Using Scent to Enhance the
Artistic Experience**

Nadjib Achaibou





Photo credit to Miguel Ángel Manrique.

Nadjib Achaibou

Perfumer

[Nadjib Achaibou](#) is a perfumer based in Mexico creating consumer products in Latin America. He is passionate about using fragrance as a storytelling tool in concerts, theatre, and multisensory virtual reality. He is a strong advocate of using scent in artistic contexts, with science, creativity, and safety, to enhance the experience of audiences and creators thanks to the beautiful power of well-created perfumes.

*If you don't curate the scents in your exhibition,
the audience will curate them for you.*

Imagine if people were allowed to stand in a museum with loud speakers, playing their favourite radio station on max volume. The individual may enjoy it, but collectively, it would be chaos. All the details that were carefully designed by the artists and the curators would be drowning in the noise.

Scent has the power to make people focus on the present, while enhancing the imagination of the person smelling it. In the age of extreme visual stimulation, it is a powerful tool to make people stay in the present. If done correctly of course.

Scent is a difficult medium to work with outside of the traditional uses. For soaps, perfumes or cleaning products teams of perfumers, evaluators, and chemists compete in international briefs to create the best perfumes most suited to the customer's needs within each context.

Here, scent is at the centre of the creation.

I can understand why curators forget or do not want to work with perfumes and scent designers. There is a difficulty for big laboratories to supply the small amounts needed for cultural exhibitions and events. There are the spectacular anecdotes of art spaces smelling of some imaginary animal's poop for weeks or months due to an unexpected spill of a smell creation. And of course, the urban legend that perfume is a *corrosive gas* waiting to devour the audience's lungs and a million dollar painting.

But I am here to argue that the perfume industry has changed and in my personal opinion for the better!

Being a chemical industry, it is of course highly regulated and thankfully each material we use is analysed to reduce risk. Ingredients that were once dangerous have been banned from the perfumers' palette and today we know how to make scents that are safe. Regulation is often seen as restricting creativity, but I believe that it gives all of us the framework to create perfumes that are safe and ready to use in new spaces.

I have had the privilege to create perfumes for concerts, the Venice Biennale, virtual reality experiences, and large scale immersive theatre events. The result has always been positive. I have seen tears as a result of intense emotions triggered by the correct scent paired with the right moment. I have seen people holding a scented blotter dearly during a whole concert. Very personal memories were shared with me, and for many, scent opens up opportunities to talk about them. *What I love the most is that you need to be there to experience scent and if done properly, it can be the missing link of the story you are trying to tell.*

[Munduruku: The Fight to Defend the Heart of the Amazon](#), a multisensory virtual reality experience co-created by the [Feelies](#) and [Greenpeace](#) was created to shed light on the indigenous Munduruku People and their home. Grace Boyle (founder of the Feelies) and myself went to the Amazon rainforest with the filming crew to experience and record all the non visual cues. This process was necessary for the ‘multisensory script’ created to develop the final project. While Grace was orchestrating all the senses together, recording vibrations from the winds at different moments of the day, humidity, heat, textures, and sounds, my job was to smell everything and record my impressions as best I could. I was surrounded by all of these novel and incredible smells that the Munduruku People were keen to show us. For the project, I recreated the scents I experienced and the Feelies created technologies and experiences to include these scents at the correct moments during the movie. The depth of the humid jungle could be smelled while the audience entered the Munduruku village. A disturbing scent of petrol and fire polluted this jungle as they observed its destruction by deforestation. Finally, a warm and human aroma calmed them as the leader of the Munduruku village invited them to take action to save the Amazon.

Well curated and orchestrated perfumes allow technology to become human. The scent from the film helped Brazilians from big cities to imagine what it is like to care and live in the Amazon like the Munduruku do. Perfume allowed for a powerful message to be ingrained in someone’s memory. Yet, to create those perfumes, I needed to be there. I created a jungle scent before my trip to the Amazon. It contained the molecules that represent nature, green, marine, which I learned in perfumery school. Yet, the intense scent of humid leaves and rich soil from a primary jungle was the complete opposite of the clean fresh scent I had imagined. Being there transformed my vision of what a natural scent is like and has transformed my work when recreating natural scents.

For the Venice Biennale in 2022, I worked with the Sámi artist [Máret Anne Sara](#) to transcribe the scent of hope and fear of the Sámi people who have lived for generations in the most northern part of Europe. For the Mexican French Algerian perfumer that I am, I could not imagine a more distant culture. But with Máret Anne's trust and guidance, we managed to create the universal feelings of fear and hope to accompany [her pieces for the Nordic Pavilion](#). We gave texture to the air and sound to silence. Her words transformed into smells and culminated with thousands of individuals exploring her artworks with our sensory interpretation of hope and fear.



DU-ŠŠAN-AHTAN-UŠŠAN, Máret Anne Sara, Venice Biennale 2022.
Photo credit to Michael Miller / OCA.

For Máret Anne's artworks, I had to interpret an emotion and make a scent that would be understood by anyone. My personal technique is to do very long, personal, and profound interviews with the artist and translate their thoughts or memories into scents. In the case of Máret Anne Sara, fear was the abstract and pungent scent that reindeers excrete when they are scared. We analysed faecal material of two reindeer populations, one that was relaxed and grazing in the nordic tundra, and one that was found in a truck of the Norwegian authorities preceding execution. We found an array of sulfuric notes that showed me the way to create the smell of fear. In the exhibition, an Italian worker passed by and shared with us that it smelled like the horse's sweat before the races, which he used to compete in as a kid. This is when we knew that the scent was correct.

Hope was harder to create. As in life, fear is always easier to find than hope. We explored many avenues, like the abstract scent of my newborn son, that of Máret Anne Sara's, and the scent of the nordic tundra and springtime wind. In the end, we took inspiration from a tiny flower that grows in May in the north of Norway for a few days. The smell of this flower represents the end of winter for the Sámi people.

Some spaces beg to be curated with scent. I just want to finish with an example of an installation where I told myself I would love to make them a perfume!

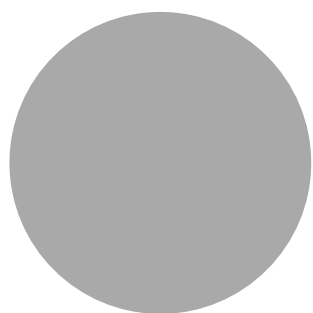
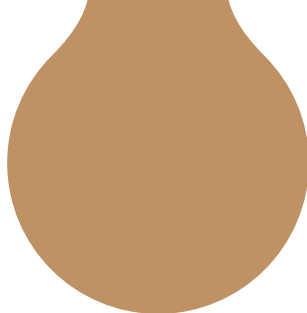
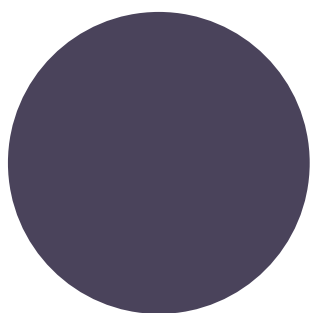
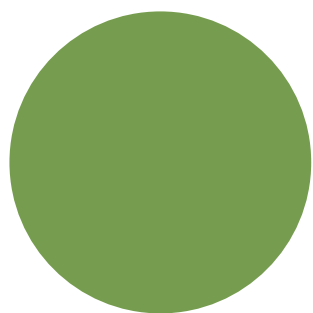
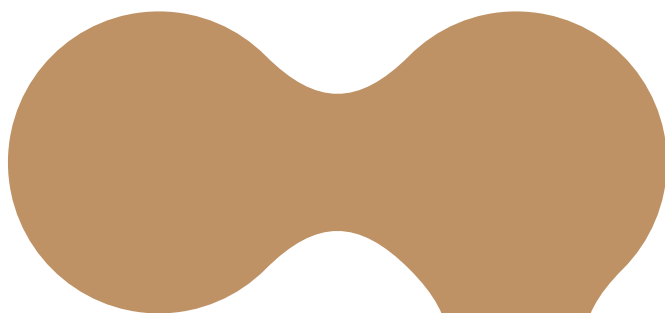
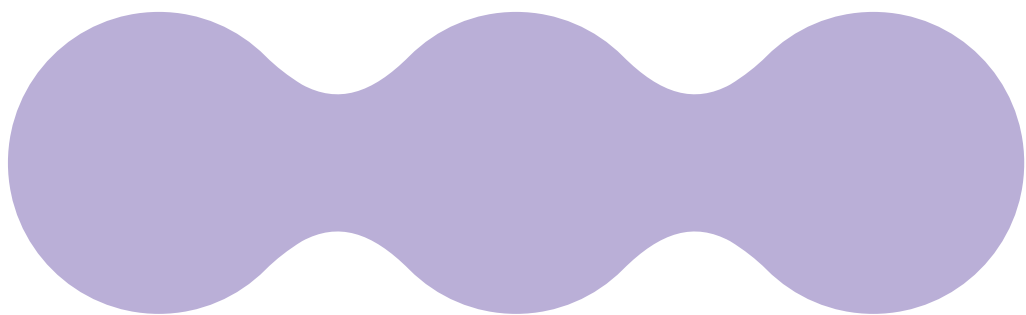
The installation was a room filled with colourful fake hair on the walls, like a funny rainbow cave that could have been brilliant! If it wasn't because of the suffocating scent of cheap plastic and glue that choked you with each breath. What could have been a delightful moment in a surreal place, became a bad joke from the worst costume shop in town.

Not having a scent should be a conscious choice.

Everyone I talk to has at least one powerful memory linked to a perfume or a scent. Audiences love a good perfume. Always. And scent is always present, whether it is the latest trendy perfume worn by the person next to you or some bodily aroma you wished that same neighbour had hidden with perfume. Scent is always present.

Curate it before it curates itself.

APPENDIX



OVERVIEW OF THE OLFACTORY STORYTELLING TOOLKIT RESOURCES

Each section of the *Olfactory Storytelling Toolkit: a 'How-To' Guide for Working with Smells in Museums and Heritage Institutions* has downloadable resources that you can use for your own olfactory event. These resources are available via the Odeuropa website. See below an overview of each downloadable resource:

SECTION 1: CURATING OLFACTORY NARRATIVES

OST Resource 1 - Storyboarding. Cards to Design Olfactory Narratives: This form helps the user think about how scents link to the items, main themes, and storylines within their collection. The fill-in worksheet is designed for printing and cutting and offers a series of pro-forma cards that can be filled in and moved around as desired.

OST Resource 2 - Olfactory Keywords: Digital collections hold a lot of items with olfactory relevance, however, many of us are not equipped with the vocabularies or keywords to find these items. This resource is a list of smell terms in six languages: Dutch, English, French, Latin, Italian, and Slovenian. This list assists users in navigating digital collections and provides them with specific vocabulary words to search for.

OST Resource 3 - Odeuropa's 'Nose-First Art Historical Odour Wheel': This resource offers a fun and simple way for users to find olfactory stories in their collections. The odour wheel starts with scent families in the first ring, which connects to odourants in the second ring, and specific artworks and artefacts in the third ring, ending with an outer ring connecting to Iconclass codes. Iconclass is a database that many GLAM institutions use to categorise and name their collection items and metadata.



OST Resource 4 - Smellwalk Form: This form can be used when conducting smellwalks. The document helps the leader of the smellwalk lead participants through the smellwalk process and know what to ask these individuals to reflect upon completion. The form was developed by Victoria-Anne Michel as part of her PhD research in Odeuropa.

OST Resource 5 - Guidelines for Using Smellwalks for Olfactory Storytelling: This guideline is to inform the process of carrying out smellwalks in and around heritage institutions. Heritage professionals can use this guide to train themselves and each other to prepare for and conduct smellwalks.

SECTION 2: CREATING A HERITAGE SCENT

OST Resource 6 - Heritage Scent Design Brief: This form assists cultural heritage professionals, historians, and researchers through the process of making a scent for the use of olfactory storytelling. It outlines all the information necessary for a scent designer/perfumer to make a smell interpretation intended for the use of olfactory storytelling. This brief is part 1 of a 2 part scent development process.

OST Resource 7 - Heritage Scent Design Brief Example of Use: This resource is a completed Heritage Scent Design Brief (OST Resource 6) for Odeuropa's Liberty Smells project. The resource is meant to act as an example of use and assist the user's own completion of a Heritage Scent Design Brief.

OST Resource 8 - Heritage Scent Development Report: This form provides the opportunity for the scent designer to reflect on the creation of a scent intended for olfactory storytelling. This includes the process and the materials used for the smell creation. The document is to be filled out by the scent designer. This report is part 2 of a 2 part scent development process.

OST Resource 9 - Heritage Scent Development Report Example of Use: This resource is a completed Heritage Scent Development Report (OST Resource 8) for Odeuropa's Liberty Smells project. The resource is meant to act as an example of use and assist the user's own completion of a Heritage Scent Development Report.

[OST Resource 10](#) - Guidelines for Evaluating Heritage Scent Creations: This guideline is to inform the process of carrying out the evaluation of heritage scent creations made for the purpose of olfactory storytelling. We propose three different evaluation schemes: an isolated evaluation, a contextualised evaluation, and a peer review evaluation.

SECTION 3: OLFACTORY EVENT DESIGN

[OST Resource 11](#) - Guidelines for Conducting Olfactory Guided Tours: This guideline is to inform the process of conducting olfactory guided tours in heritage institutions. Heritage professionals can use this guide to train themselves and each other to prepare for and conduct olfactory tours.



APPENDIX CHECKLIST

This appendix checklist serves as a tool for reference when taking the first steps of creating an olfactory event. This brief overview serves as a guide, summarising the steps taken in the chapters of the *Olfactory Storytelling Toolkit: A 'How-To' Guide for Working with Smells in GLAMs* and to point one in the right direction. This checklist and its phases of observation and reflection were inspired by the proposed methodology in the monograph: *The Dress Detective: A Practical Guide to Object-Based Research in Fashion* (2015) by Ingrid Mida Alexandra Kim. The dress detective's object-based methodology can be used, albeit modified, for olfactory events too. In this appendix, the object-based research methodology is meant in a more metaphysical or abstract way, where the object of study can also be a smellscape or an olfactory object, a story about or told through smell.

~ CHECKLIST REVIEW ~

What is the item/object/story of your choice?

* Refer to Section 1: Curating Olfactory Narratives

.....
.....

How does that item/object/story translate into scent?

* Refer to Section 2: Heritage Scent Development

.....
.....

What kind of olfactory event are you planning?

* Refer to Section 3: Olfactory Event Design

- Olfactory exhibition/installation
- Workshop or lecture
- Olfactory guided tour
- Olfactory self-guided tour
- Smell training
- Smellwalk

How will the scent be presented?

* Refer to Section 3: Olfactory Event Design

- Environmental diffusion (e.g. scent machine, Aroma Jockey, etc.)
- Mobile diffusion (e.g. hand fan, blotter, printed matter, etc.)
- Fixed scent stations (e.g. scent column, affixed container, etc.)

SECTION 1: CURATING OLFACTORY NARRATIVES

What are olfactory stories and how do you find them? As a first step we advise to roughly identify an object of study, which does not necessarily have to be an actual three dimensional object such as a painting. It could be a smellscape, a story, a concept, an area, a time period, etc. Once the object of study is chosen we start the *observation* phase. Here a thorough objective analysis of your chosen object is conducted, for which this checklist provides guiding questions (see below). After gathering object-based information, the next phase of *reflection* is initiated. This is where the previously gathered information fuses with personal sensory reactions and contextual information.

~ CHECKLIST FOR OBSERVATION (E.G. COLLECTION ITEM, SOURCES, BACKGROUND INFORMATION) ~

1 What is the item/object/story of your choice and what was its function or purpose?

* Refer to Section 1, Chapter 1

.....

.....





2 Can you identify a particular olfactory iconography with the item/object/story?

* Refer to Section 1, Chapter 1 > Olfactory Iconographies

.....
.....

**3 What are the main materials of the item/object/story?
(is it natural or man-made)**

.....
.....

**4 Does the item/object/story have an inherent smell?
Did that item hold olfactory materials or substances in the past?**

.....
.....

5 What decade or general time period does the item/object/story belong to?

.....
.....

6 Does the collection have any other item/object/story like it, either by the same maker or from a similar time period? Can this lead to new trails and discoveries in your collection?

.....
.....

7 What olfactory keywords could assist in finding more information about this object?

* Refer to Section 1, Chapter 2 > Keyword Searching

.....
.....

**8 Describe the main structure or ingredients of the object/subject.
This can be done in the form of a drawing or written words.**

.....
.....

9 What source material could provide more information? (books, digital archives, etc) Do these sources identify any scented materials that would be connected to the object in the past?

* Refer to Section 1, Chapter 1 > Smell Sources

.....

.....

10 What digital resources can assist you in the exploration of the object? (tip: the [Odeuropa Smell Explorer](#), the [Odeuropa Encyclopaedia](#), and [Iconclass](#))

* Refer to Section 1, Chapter 2

.....

.....

~ CHECKLIST FOR REFLECTION (E.G. ORAL HISTORY, BIASSES, KEYWORDS, SOURCE MATERIAL) ~

1 What was the impetus to examine this item/object/story?

.....

.....

2 Do you have an emotional reaction to the item/object/story?

.....

.....

3 Can you identify any personal biases in your research process and approach?

.....

.....

4 Can you identify with the individual that owned/used/experienced this object?

.....

.....

5 Does the collection hold any provenance records associated with the item/object/story/subject? What do these reveal?

.....

.....



Sensory reactions

- 1 Sight (visually) – Does the object have stylistic/iconic/artistic or religious references?

.....

.....

- 2 Touch (tactile) – What does the item feel like, what materials could it be made from?

.....

.....

- 3 Sound (auditory) – Does the object make noise? If so, what would it sound like?

.....

.....

- 4 Taste (gustatory) – Does this item/object/story have a taste? Is the object used for the preparation or creation of food?

.....

.....

- 5 Smell (olfactory) – Would you say the related/inherent smell of the item is classified as a malodour or a fragrance?

.....

.....



SECTION 2: HERITAGE SCENT DEVELOPMENT

How do you interpret the chosen olfactory subject into a scented material safely and efficiently? Section 2, focusses on how you take this material from section one and translate it into tangible scented material. Here, the *observation* phase poses questions to ask yourself throughout the process of scent development. The information outlined in section 2 and its related resources, the *Heritage Scent Design Brief* and the *Heritage Scent Development Report* are helpful. The *reflection* phase asks open ended questions which leaves one to philosophise on their own heritage scent creation: its purpose, relevance, and use.

~ CHECKLIST FOR OBSERVATION ~

1 How does your object translate into a scent? What type of heritage scent suits your item/object/story? (e.g. Materially Informed Reconstruction, Historically Informed Interpretation, Artistic Translation)

* Refer to Section 2, Chapter 1 > Heritage Scent Creations

.....

.....

2 What is your scent, what is the item?

* Refer to OST Resource 6 > *Heritage Scent Design Brief*

* Refer to OST Resource 8 > *Heritage Scent Development Report*

.....

.....

3 What type of material is your scent? (e.g. alcohol-diluted, pure (perfume) oil, essential oil, extracts etc.)

* Refer to Section 2, Chapter 2 > Types of Materials

.....

.....

4 How will you acquire the scent(s)? (e.g. develop with a scent designer, purchase raw materials, etc.)

* Refer to Section 2, Chapter 4 > Develop Heritage Scent with Scent Designer

.....

.....

5 How will you evaluate the heritage scent design process?

* Refer to Section 2, Chapter 5 > Evaluating Heritage Scents

.....

.....





~ CHECKLIST FOR REFLECTION ~

1 How would you interpret a story into a scent?

.....
.....

2 Why should this scent be safeguarded?

.....
.....

3 Can you identify any key stakeholder communities whose thoughts and experiences may be relevant and helpful when developing and evaluating the heritage scent for this item/object/story?

.....
.....

4 Is this heritage scent going extinct? How much longer can we experience this scent in reality?

.....
.....

5 If you would smell this scent at your intended event, how would you want to see/experience it?

.....
.....

6 What content is necessary to understand the provenance of this heritage scent?

.....
.....

7 Do you foresee the heritage scent raising any particular emotions or reactions in the visitor?

.....
.....

8 Can you identify any personal biases here in regards to developing the scent in this specific way?

.....
.....



SECTION 3: OLFACTORY EVENT DESIGN

How do I ensure that the design of my olfactory event is suitable for the museum space, staff, and visitors? Section 3 explains how to design an olfactory event based on the resources available to you and your institution. In the *observation phase* more practical questions are posed, as these are the final steps in order to set up the event. The *reflection* part offers more speculative or open-ended questions because this is where the curation of the space and smells comes to an imaginary fruition. Overall, presentation techniques and smell distribution are of importance here.

~ CHECKLIST FOR OBSERVATION ~

1 What kind of olfactory event are you planning?

- Olfactory exhibition/installation
- Workshop or lecture
- Olfactory guided tour
- Olfactory self-guided tour
- Smell training
- Smellwalk

2 Who is the event's target audience?

.....

.....

3 What is the budget and resources available for the olfactory event? (hours, staff etc.)

- * Refer to Section 3, Chapter 2 > Costs of an Olfactory Event

.....

.....

4 What are the affordances of the space where the olfactory event will take place? (ventilation, walking spaces, etc.)

.....

.....



5 What olfactory distribution technique will you use?

* Refer to Section 3, Chapter 3

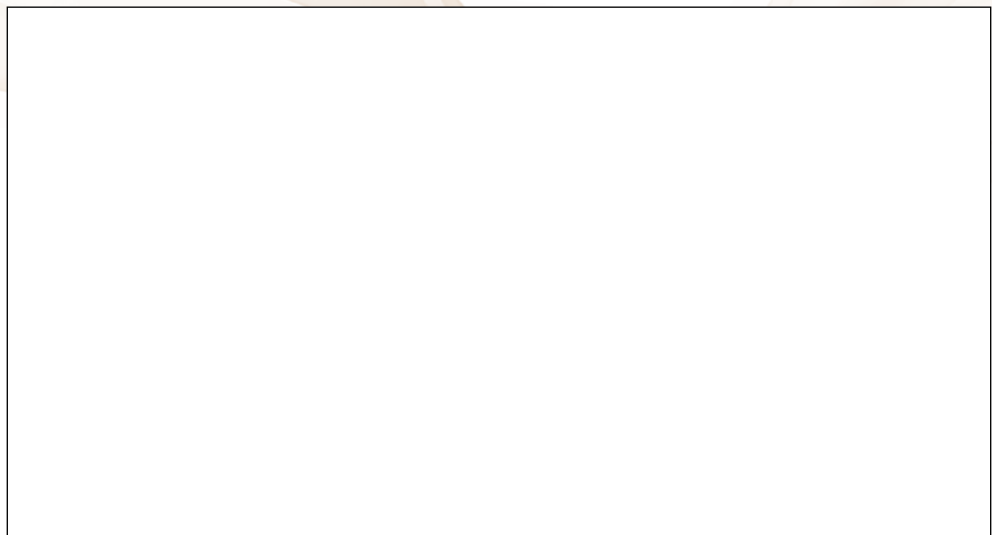
- Scent machine
- Aroma Jockey
- Hand fan
- Handheld dry diffusers
- Blotter
- Blotter kit
- Rub and Sniff
- Scent column
- Affixed (glass) container with hand pump system

6 What are the chosen smell distribution methods and their pros and cons?

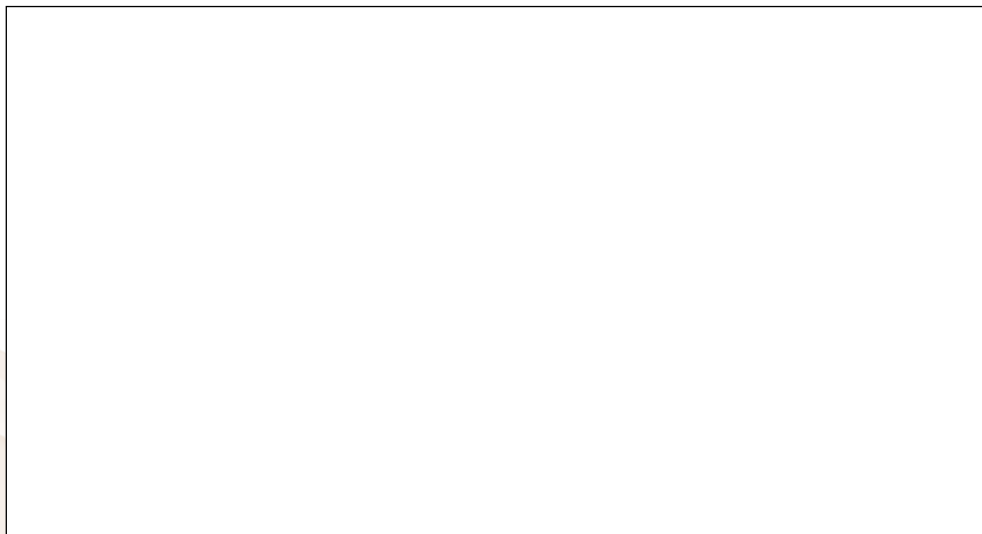
* Refer to Section 3, Chapter 4

.....
.....

7 Draw a sketch of your olfactory event space BEFORE the olfactory event will be placed there.



8 Draw a sketch of what your olfactory event may look like.



~ CHECKLIST FOR REFLECTION ~

1 Reflect on any possible personal biases you may have towards the topic.

.....
.....

2 Reflect on what this content could mean for your audience.

.....
.....

3 What steps do you need to take to ensure that the olfactory event design suits the needs of your target audience?

.....
.....

4 What safety measures must be put in place (for staff and visitors) to ensure proper preparation and execution of the olfactory event?

.....
.....

- 5 Thinking of your potential exhibition space, where and how will you store the olfactory event materials? (olfactory materials, blotters, etc.)

.....
.....

SECTION 4: ASSESSING RISKS

How should you approach the potential risks of olfactory storytelling and minimise them? Section 4 maps out how to navigate potential risks of olfactory storytelling and tips on how to mitigate them. Many museum professionals are inexperienced with olfactory storytelling techniques, and as of yet there is limited information regarding what risks scents in heritage environments pose and how to assess such risks. Here, the observation phase focusses on considering the placement of specific scents and their presentation techniques as well as the materials your space holds. The *reflection* phase helps you think about how you may assess and mitigate these risks based on your individual case. Working through this process is best done in partnership with the institution’s scientific team. Though there are risks involved in techniques of olfactory storytelling, when the proper measures are followed these risks are minimal.

~ CHECKLIST FOR OBSERVATION ~

- 1 Where are the scent distribution techniques placed in regards to the artworks?

.....
.....

- 2 What type of materials and objects are in the space where the olfactory event will take place?

.....
.....

- 3 How many scents will be presented in the space?

.....
.....

4 Does your chosen distribution technique (environmental diffusion or mobile diffusion) pose a risk to the space, collection, staff, and visitors?

* Refer to Section 4, Chapter 1

.....
.....

5 Based on the desired effect that you want to achieve, how intense should the presented scents be?

.....
.....

~ CHECKLIST FOR REFLECTION ~

1 How will you mitigate the potential risks of the chosen diffusion technique?

.....
.....

2 How will you mitigate the risk of scents lingering in the exhibition space?

.....
.....

3 How will you prevent the risk of scents 'leaking' into other spaces?

.....
.....

4 How will you minimise any risks to the collection itself?

.....
.....

5 How will you involve other members of staff to identify and handle these risks?

.....
.....

FINAL REMARKS

After detailed information has been gathered directly from the object of study, through *observation* and *reflection*, for all the sections in the *Olfactory Storytelling Toolkit*, one can connect them to create one's own well-rounded olfactory narrative. To flesh out this narrative, we can now move from the object oriented research method to a more textual and secondary sources driven research approach. Like in any exhibition, this is a necessary step in order to be able to (re)produce as accurately as possible the time and place within which your object of study and your olfactory narrative sits.

RELEVANT LITERATURE

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**The Olfactory Storytelling Toolkit:
A 'How-To' Guide for Working with Smells
in Museums and Heritage Institutions**

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Scent in the museum. For a long time, this phrase would have raised red flags for conservators, curators, archivists and visitors of heritage spaces – and in many cases it still does. Scents? Where? Surely not in the galleries or in the depot?! Do they indicate undesirable moulds in books or other objects? Are odours spilling from the restroom or the museum café? Do these scents suggest the presence of airborne dangers that might affect the artefacts? Recognised as a hazard or simply lurking in the background, visitors and heritage professionals alike are not accustomed to actively paying attention to smells in cultural heritage institutions. Scents are assumed to be incidental, unintentional, and unwanted.

Odeuropa's *Olfactory Storytelling Toolkit: A 'How-To' Guide for Working with Smells in GLAMs and Heritage Institutions* is created for conservators, curators, educators, tour guides, museum directors, archivists, librarians, and all others who are interested to work with smells in a heritage context. This guide is a resource that provides a basis to use smell as a storytelling technique within your own curatorial practice. It provides methods – from beginning to end – to bring an olfactory narrative from the (physical) collection item towards visitor engagement. We not only present tips for building a strong olfactory narrative (and where to start finding those stories) but also outline practical elements of olfactory storytelling such as *sniffing out* olfactory objects and spaces with *smellwalks* and a *sniffer in residence*, best practices for presenting and distributing scents in the museum space, creating (heritage) scents with a scent designer and how to carry out your own risk assessment in GLAM environments.

This handbook has downloadable resources to help bring your olfactory event to life. For more information, scan the QR code or visit <https://odeuropa.eu/the-olfactory-storytelling-toolkit/>.

