

Characteristics of Evocative Places and Emotions Felt at These Places: A Multi-Cultural Comparison

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This research concentrates on evocative places; places that evoke images, emotions, and memories. The main focus is on places at which people recharge and feel at peace. We study the locations of these places, their characteristics, and the emotions people attach to them. Paper-map and digital-mapping experiments were conducted in Hamburg (Germany), Ames and Grinnell (Iowa), Vitória, and Belo Horizonte (Brazil). Based on the data from all 804 collected places on three different continents we designed The Conceptual Model of an Evocative Place. The model structures the characteristics with which evocative places can be described into the four main categories: physical characteristics, experiences, senses, and values. We then discuss the differences in the locations of evocative places (outside vs. inside) and the differences in emotions expressed in different cities. In our further research we will explore the negative side of emotions and the deeper meaning of these differences.

Keywords: evocative places; characteristics of evocative places; emotions; mapping emotions; multi-cultural differences

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1 Introduction

An evocative place is defined as a place that evokes emotions, memories, and images. Its definition is anchored in the classical literature on places. A place is defined as a physical location in a landscape to which people attach a meaning (Cresswell, 2004; Smaldone et al., 2008). Additionally, people may bond with these places emotionally/affectively which is often referred to as an attachment (Altman and Low, 1992; Low and Altman, 1992). A place can then be described with its physical characteristics, the person's individual perception including the memories, images and emotions attached to the place, and uses that occur at this particular location (Bott et al., 2003; Canter, 1977; Pretty et al., 2003).

In our research we concentrate on well-being evocative places. They are defined as places at which people can recharge and feel at peace. We then study the locations of these places in different cities, how people describe their characteristics using words, and how they express emotions they feel at these places. So far, we collected 804 evocative places conducting paper-map and digital-mapping experiments in Hamburg (Germany), Ames and Grinnell (Iowa), Vitória, and Belo Horizonte (Brazil). This contribution aims to overview the multi-cultural differences discovered in the collected datasets.

We are interested in this topic from the perspective of two disciplines. From a geoinformation science perspective it is intriguing to think about a place as an object and how can it be mapped in a GIS (Purves et al., 2019; Winter and Freksa, 2012). The same is valid for emotions which are not typical geographic objects and can change over time and place. From urban planning and design perspective it is beneficial to deepen understanding of places that can contribute to a more pleasant environments at which the citizens feel accepted, heard, and relaxed. Our research aims to contribute to both disciplines.

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Table 1: Locations and data collected at these locations

Location	No of evocative places	No of characteristics	No of emotions
Hamburg, Germany	191	595	339
Ames, Iowa	192	552	520
Vitória, Brazil	192	495	564
Belo Horizonte, Brazil	48	132	131
Grinnell, Iowa	184	527	542

2 Research Methodology and Results

The paper-map and digital mapping experiments used for the collection of data about evocative places are similar in their design and research methodology. They are based on a map and accompanied with a questionnaire. A map can be presented on a paper or digitally in the form of a digital interactive map. The questionnaire associated with the map contains categories including the location of an evocative place, descriptions of the self-selected evocative place, emotions felt at this place, questions related to accessibility of this place, its importance for the resident, and some basic data about the participant. The main question asked for the self-selected evocative places was: ‘Select a place in the city at which you can relax, recharge and at which you feel at peace’. As people in general have difficulties finding expressions for emotions, we give them a list of emotions compiled by Rosenberg (1999) so they can choose the words from the list. This is also practical as it enables to categorize the emotions based on this pre-defined taxonomy. In order to conduct the same experiment in three different languages; the questionnaire, originally designed in German language, was then translated into English and Portuguese. The list of emotions were translated from the original in English to German and Portuguese language. The participants were always able to respond to the survey in their native language. Table 1 presents the number of collected evocative places in each of the cities, the number of words collected describing characteristics of these places, and the number of words describing emotions felt at these places.

Based on this collected data, The Conceptual Model of an Evocative Place was designed categorizing the words collected for the characteristics of the self-selected evocative places (Figure 1). This model includes four categories with which all evocative places can be described. These four categories are: Characteristics, Experiences, Senses, and Values. The category Characteristics includes the physical characteristics of an evocative place. They can be: water, grass, benches, paths, or descriptions of the size, shape, and openness of the evocative place. Experience includes the active experience at this place that includes activities such as jogging, reading; healing experience and restoration such as meditation; emotions includes happy and relaxed; feelings of comfort or different external simulations. Senses include visual senses: a beautiful sunset, a view over the river; sounds, smells, tastes, and temperatures (cold air, warm temperatures). Values are composed of memories related to this place, attachments, stories, and images. The model is well described in the papers by Poplin and her colleagues (Poplin, 2020; Poplin et al., 2021).

3 Exploring Cultural Differences

One of the main noticeable differences that can be discussed in depth is the difference in location of an evocative place as found in Europe, Brazil, and the US. The majority of evocative places selected in Europe and Brazil are places that can be found outside. They include parks, beaches, parts of the roads, outdoor coffee places, recreational centres, golf places, farmers’ markets. This aspect may be of a particular interest to urban planners and designers. The residents in European and Brazilian cities, those for which we collected data, tend to go out to explore and use public spaces. In contrast, the residents of the cities in the US, tend to spend much more relaxing time indoor. Table 2 summarizes the locations selected in Ames (Iowa) and divides them according to the outdoor or indoor places; 118 were

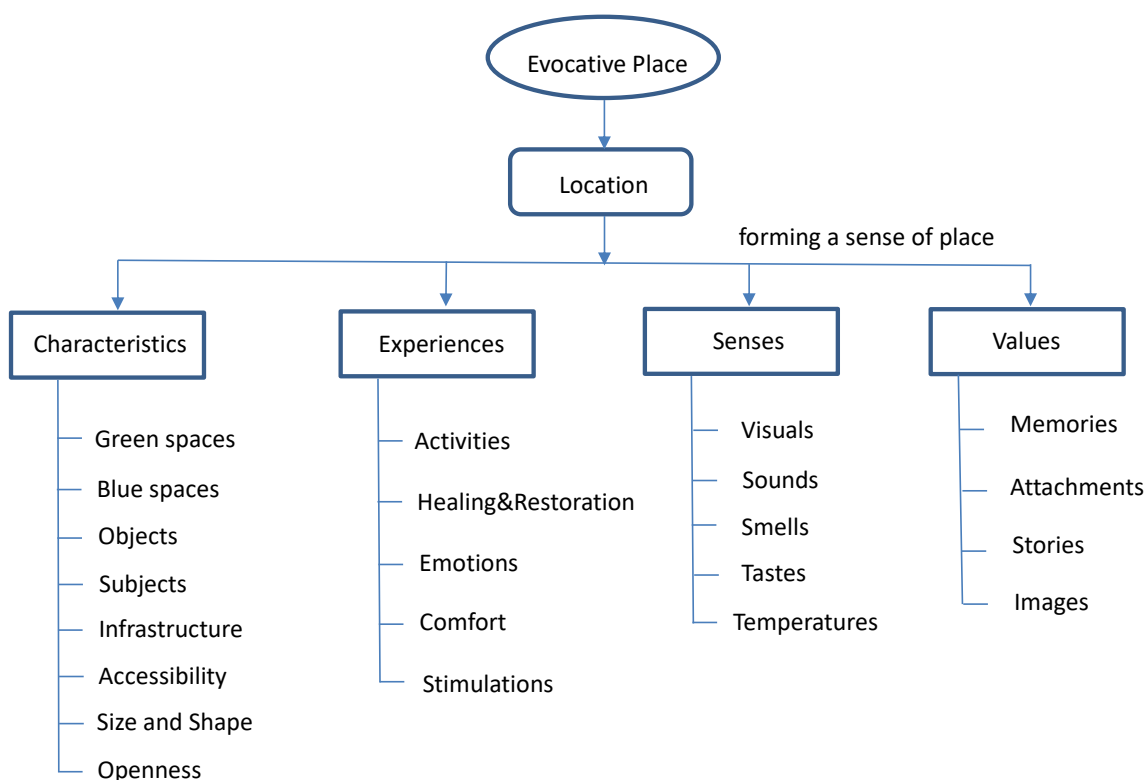


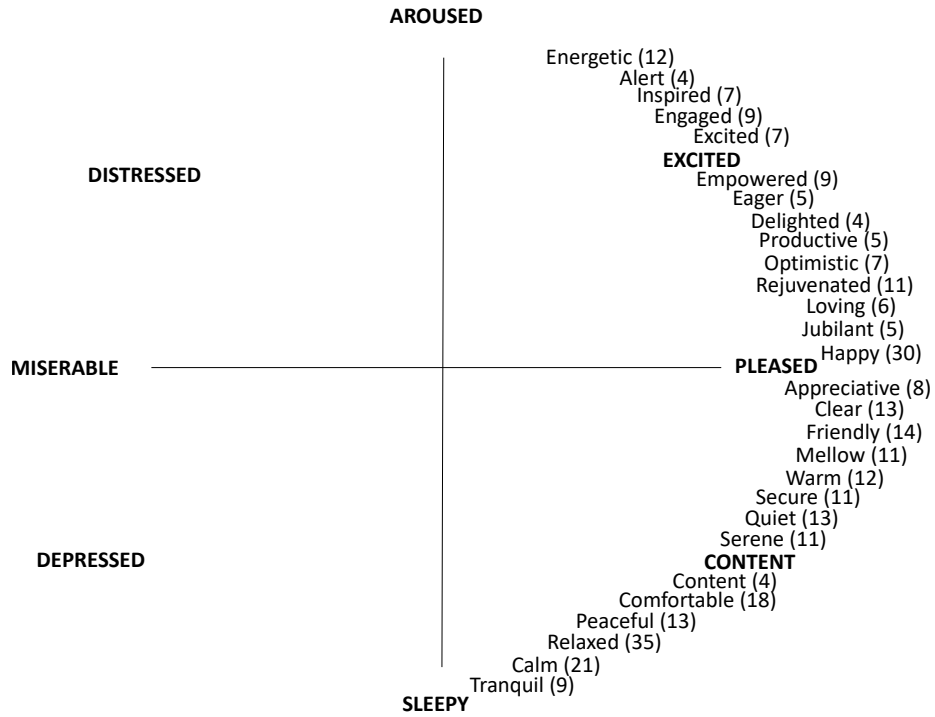
Figure 1: The Conceptual Model of an Evocative Place (Poplin, 2020)

located outside and 74 were located inside the buildings. This may have to do with the fact that these cities are car-oriented and enable or almost enforce the residents to move from one location to the other one by car. Moving by car somehow incorporates the philosophy of less walkability and less exploration of public spaces. Public spaces may not, except for organized parks, afford any particular experience and the residents will choose not to explore them. These differences should be explored more in depth in the continuation of this research.

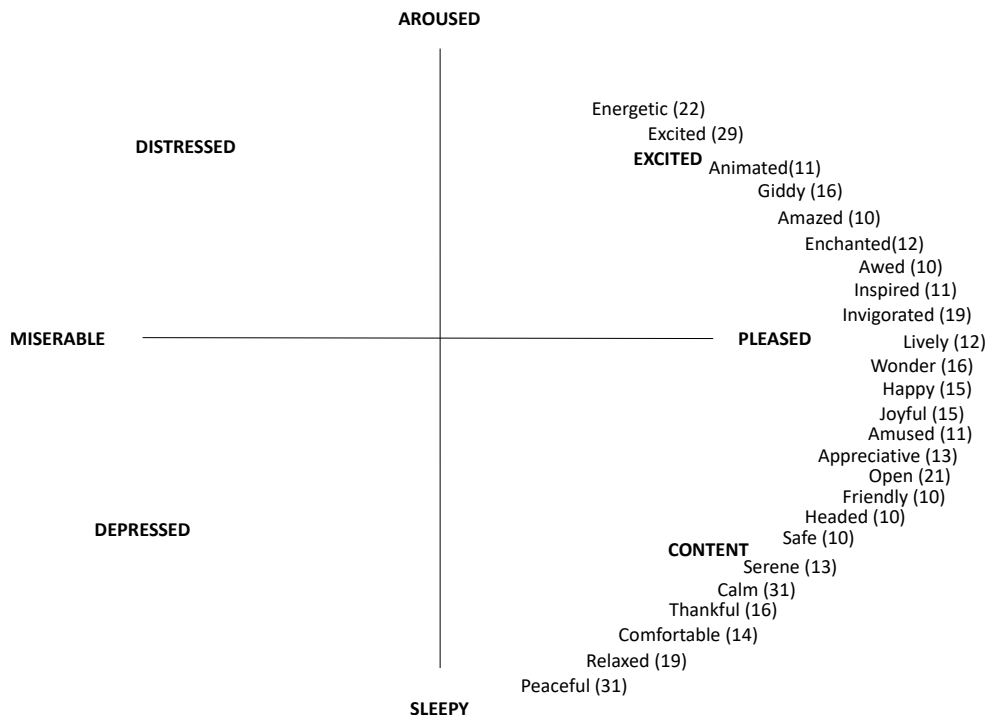
Another noticeable difference is the difference in expressing emotions. Which emotions are selected in which city and how often is certain emotion used in that city. Can we discover some patterns particularly specific for the selected locations? Figure 2 shows the collected emotions presented on Russell’s Circumplex Model of Affect (Russell, 1980). Emotions collected for Ames are on the left-hand side and emotions collected for Vitória are on the righthand side. The most often expressed emotions in Ames (Iowa, USA) are relaxed (35), happy (30), calm (21), and comfortable (18). The most often expressed emotions in Vitória, Brazil are energetic (22), open (21), invigorated (19), relaxed (19). It is interesting to observe that the majority of expressed emotions in Ames fall between the categories pleased – sleepy in the south-east quadrant of Russell’s model. In contrast, the majority of emotions in Vitória, Brazil falls into the categories between pleased – amused, a more energetic part of the model located on the north-east.

Table 2: Evocative places in Ames (Poplin, 2020)

Place/location	Includes (number of places)
Outdoor evocative places together (118)	Park (61), University campus (35), Avenue, road, street (13), Coffee place (5), Jack Trice Stadium (2), Recreation centre, golf (1), Farmers’ market (1)
Indoor evocative places together (74)	University building, hall, home, library (60), Restaurant (9), coffee place (5), Recreation centre, gym (5)



(a) Ames, Iowa (Poplin, 2020)



(b) Vitória, Brazil (Poplin et al., 2021)

Figure 2: Emotions expressed in evocative plaes. The emotions are organized according to Russell's 1980 Circumplex Model of Affect.

4 Discussion and Conclusions


Exploring evocative places in these multi-cultural environments demonstrates some intriguing results valuable for urban planning and design as well as for geoinformation scientists. Mapping evocative places and locations can give ideas to urban planners and designers about places that are comforting for the residents, places at which they can relax. Some of these places show patterns of high concentrations in particular areas of the city. Knowing the locations of these high concentrations may help urban planners and designers studying their specifics and the relation of their characteristics and emotions felt at these places. Additional research needs to be invested in an improved understanding of the physical characteristics of places and their effect on residents' perception and emotions.

Already in 1996, Burrough and Frank (1996) discussed the issues related to the objects with indeterminate boundaries. The problem of their representation in a geographic information science (GIS) has not yet been solved. About then years ago Goodchild (2011) opened up the discussion about the difficulties connected with attempts to formalize places in a GIS. His stimulating and intriguing contribution to the debate was followed by the attempts to define places for the needs and uses in information science and discussions of their main characteristics (Purves et al., 2019; Winter and Freksa, 2012). Research presented in this short paper additionally highlights the issue of the representation of places – in this case evocative places – in a GIS (Poplin et al., 2021). Currently they are represented by a single point, as a point object, which does not satisfy the needs of the visualization of such a complex construct as an evocative place. These places may come in different shapes and sizes and have fuzzy boundaries. An even more challenging task represents an attempt to visualize emotions on a map. Not only emotions do not have well determined boundaries, but they also change over time and place. They can be represented as an attribute of the self-selected evocative place and visualized with a colour as a symbol. Again, this is a very limited representation of emotions. In our further research we will explore different visualizations that can be possibly used for places and emotions. We are currently working on the validation of The Conceptual Model of an Evocative Place. We also plan on studying evocative places on the other, negative, spectrum of emotions. We hope that this research can inspire urban planners and designers to create more positive places at which residents feel happy and at peace.

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