



UNIVERSIDADE DO ALGARVE  
FACULDADE DE ECONOMIA

**THE ROLE OF *SENSESCAPES* IN TOURIST EXPERIENCES  
IN RURAL AREAS**

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TESE PARA OBTENÇÃO DO GRAU DE DOUTOR EM TURISMO

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*Sight paints a picture of life,  
but sound, touch, taste and smell are actually life itself.*

Sullivan & Gill (1975, p.181)  
In *If you could see what I hear*.

*...as place is sensed, senses are placed; as places make sense, senses make place...*

Feld (2005, p.179)  
In *Empire of the senses: the sensual culture reader*.

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## ABSTRACT

The sensory appealing of destinations has recently been in focus as an important dimension in the process of facilitating positive and memorable tourist experiences. Particularly, the countryside embraces local resources rich in multi-sensory effects that could be explored in the planning and marketing of stimulating tourist experiences addressed to segments of tourists suitable for sustainable local development. Despite being well documented that the so-called five senses – sight, hearing, smell, taste, and touch – influence human perception, memory, and behavior, research following a holistic approach to all modalities of sensory experiences in tourism, specifically in rural destinations, is still scarce. In this light, this thesis encloses four studies aiming to explore the role of *sensescapes* in tourist experiences in rural areas.

The first study explores the conceptualization of the sensory dimension of tourist experiences by discussing its theoretical underpinnings. The second study presents a conceptual framework intended to support the appropriateness of the research on sensory experiences as perceived by tourists and resulting contribute to marketing sustainable sensory-themed tourist experiences in rural destinations. Subsequently, study three shows through a questionnaire presented to tourists in rural lodgings in Southwest Portugal that reported sensory experiences could be used to capture meaningful sensory-based themes adequate for segmenting tourists and tangibilize tourist offerings based on sensory experiences. Study four uses a two-step process of data collection, conducted in loco and six months after the tourists' visit to Southwest Portugal, revealing that richer sensory tourist experiences may have an important role in the long-term memory of individuals' experiences, potentiating favorable tourist behavior with respect to rural destinations loyalty.

Overall, the results corroborate the importance of the sensory dimension for individuals' likelihood of having a positive and memorable tourist experience, as well as the potential of using sensory stimuli in marketing tourist experiences in rural destinations.

**Keywords:** *sensescapes*; sensory tourist experiences; tourist experiences; rural destinations; destination marketing; Southwest Portugal

## RESUMO

A importância dos cinco sentidos humanos – visão, audição, olfato, paladar e tato – no marketing de experiências turísticas positivas e memoráveis tem vindo a ser enfatizada no âmbito da investigação em turismo. Particularmente, a vulnerabilidade e riqueza multissensorial dos recursos endógenos oferecidos nas áreas rurais (ex. fauna, flora, gastronomia), com características divergentes do ambiente urbano e potenciadoras de atividades ligadas à natureza e à vida rural, justificam um estudo atento da experiência sensorial turística em destinos rurais. Neste contexto, é evidenciado o papel dos sentidos humanos no planeamento e marketing de experiências turísticas especialmente dirigidas a segmentos de turistas que potenciem o desenvolvimento sustentável das áreas rurais.

Apesar de estar bem documentada na literatura a influência de todos os sentidos na perceção, memória e comportamento dos indivíduos, e por consequência no comportamento de consumo, assiste-se a uma escassez de estudos que abordem a importância dos cinco sentidos na experiência turística de uma forma holística, particularmente em destinos rurais. Assim, para além das paisagens visuais, que têm sido mais estudadas, diversos autores sugerem que a investigação na área do turismo inclua também as experiências auditivas, olfativas, gastronómicas e táteis. Desta forma, a presente tese compreende quatro estudos com o objetivo de explorar o papel da dimensão sensorial da experiência turística em áreas rurais, com uma abordagem pós-positivista e uma perspetiva de marketing.

O primeiro estudo contribui para a conceptualização da dimensão sensorial da experiência turística, através da discussão de uma revisão de literatura multidisciplinar, assim como para a identificação de tópicos de investigação pouco explorados com potencial interessante para investigação futura. O segundo estudo apresenta um instrumento conceptual com o objetivo de mostrar a relevância do estudo de experiências sensoriais relatadas por turistas e o respetivo contributo na definição de temas multissensoriais adequados ao marketing de experiência turísticas em destinos rurais. O terceiro artigo é de natureza empírica e revela, através de um questionário aplicado a turistas que pernoveram em alojamentos de espaço rural da Costa Alentejana e Vicentina de Portugal, que o estudo de experiências sensoriais relatadas por visitantes

é adequado ao processo de segmentação de turistas e na definição de uma oferta turística com base em experiências multissensoriais em áreas rurais. No caso particular em estudo, quatro temas sensoriais são sugeridos através de uma análise de correspondência múltiplas, traduzindo-se em quatro segmentos de turistas com perfis distintos, com base nas atividades desenvolvidas no destino e nas motivações dos participantes para a escolha do destino de férias. Os quatro temas identificados dizem respeito a experiências especificamente rurais, experiências globais do destino com especial foco nas atividades relacionadas com a praia, experiências de natureza e experiências de natureza espiritual. O quarto estudo é empírico e recorre a dados recolhidos junto de turistas *in loco*, assim como seis meses após a visita ao Sudoeste de Portugal. Os resultados permitem concluir que experiências sensorialmente mais ricas têm um papel importante na memória a longo-prazo de experiências turísticas, promovendo um comportamento mais favorável dos visitantes em relação aos destinos rurais, no que diz respeito à recomendação e revisita por parte de turistas, o que sugere uma ligação entre a dimensão sensorial da experiência turística em destinos rurais e a fidelização ao destino.

No geral, os resultados permitem corroborar a importância dos sentidos para os indivíduos viverem uma experiência turística positiva e memorável, assim como o potencial do uso de estímulos sensoriais no marketing de experiências turísticas em ambientes rurais.

**Palavras-chave:** *sensescapes*; experiências turísticas sensoriais; experiências turísticas; destinos rurais; marketing turístico; Costa Sudoeste de Portugal

## **CHAPTER 1**

### **GENERAL INTRODUCTION**

#### **1.1 Context and scope**

In the 21<sup>st</sup> century, positive and memorable tourist experiences have been acknowledged as key goal in the planning and marketing of competitive destinations (Morgan, Lugosi, & Ritchie, 2010; Ritchie & Crouch, 2003; Tung & Ritchie, 2011). Nonetheless, considering that tourist experiences cannot simply be created, due to their subjective nature, and that tourists face a wide variety of choices with respect to holiday destinations, tourist organizations are competing for individuals' attention (Ooi, 2005). Particularly rural destinations, by involving specific economic, social, and environmental issues, are especially concerned in facilitating appealing and sustainable tourist experiences fitting desirable tourists and contributing to the local development (Kastenholz, Davis, & Paul, 1999; Lane, 2009; Middleton & Hawkins, 1998; Roberts & Hall, 2004). With this view, rural destinations are called to direct efforts in the sustainable planning of the surrounding environment, physical or virtual, in which positive and memorable experiences are more willing to emerge, leading to positive outcomes, such as destination loyalty (Cutler & Carmichael, 2010; Kastenholz, Carneiro, Marques, & Lima, 2012; Neuhofer, Buhalis, & Ladkin, 2012; Tung & Ritchie, 2011).

Accordingly, recent research in tourism suggests the importance of multi-sensory stimuli in the marketing of appealing tourist experiences, resulting as important markers for recollection (Mossberg, 2007; Ooi, 2005), while encouraging responsible tourist experiences with respect to local resources (Saxena, Clark, Oliver, & Ilbery, 2007). However, despite this approach being couched in an extensive multi-disciplinary theoretical and empirical research, which poses the five senses as crucial in human perception, memory, behavior (Damásio, 2009; Goldstein, 2010; Howes, 2005), as well as in consumption experiences (Brakus, Schmitt, & Zarantonello, 2009; Gentile, Spiller, & Noci, 2007; Krishna, 2012; Pine & Gilmore, 1998; Schmitt, 1999), empirical studies on tourist experiences conducting a holistic approach to the so-called five senses are

still scarce, particularly in rural areas (Dann & Jacobsen, 2003; Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009). Moreover, the diversity of endogenous resources existing in the countryside, wealthy in a multiplicity of *sensescapes*, highlights the importance in exploring the potential of the sensory dimension of tourist experiences in rural destinations (Appendix 1).

## **1.2 Purpose of the thesis**

Four studies will be conducted, each emphasizing specific aspects of the thesis main purpose which is to explore the role of *sensescapes* in tourist experiences in rural areas. Four general objectives have been set in line with the aforementioned purpose, namely: 1) to contribute to the conceptualization of the sensory dimension of tourist experiences by discussing its theoretical underpinnings; 2) to reflect on the role of the sensory dimension of tourist experiences in the marketing of sustainable sensory-themed tourist experiences in rural destinations; 3) to use a holistic approach to the five senses, meant to capture meaningful sensory-based themes adequate for segmenting tourists in Southwest Portugal; and 4) to contribute to the understanding of the role of *sensescapes* in facilitating memorable tourist experiences in the countryside and the connection between long-term memory of *sensescapes* and destination loyalty. Each one of the above mentioned general goals corresponds to studies 1 to 4, respectively. The specific objectives addressed by each study are presented below.

The conceptual **study 1**, entitled “Exploring the conceptualization of the sensory dimension of tourist experiences”, seeks to achieve five specific goals, as follows: a) to understand the importance of the body to the individual’s perception of the surrounding world, adopting a multidisciplinary approach; b) to contextualize the role of the bodily senses under the experiential paradigm; c) to analyse the role of the five human senses in the models used for staging tourist experiences; d) to identify the methodologies used in empirical research on the role of the five human senses in the overall tourist experience and resulting managerial implications to destinations; and e) to suggest future research opportunities in this area.

The conceptual **study 2**, named “A contribution to marketing sustainable sensory-themed tourist experiences in rural destinations”, specifically aims to bring a framework into discussion by highlighting the specificities of the planning and marketing of

sustainable tourist experiences in rural areas and thus to consolidate the idea that sensory elements can be used as a starting point for responsibly marketing tourist experiences in rural destinations.

The empirical **study 3**, entitled “The sensory dimension of tourist experiences: capturing meaningful sensory-based themes in Southwest Portugal”, addresses four specific aims: a) to identify meaningful sensory-based themes through the analysis of sensory tourist experiences reported by tourists in Southwest Portugal; b) to segment tourists using the sensory-based themes extracted from the reported sensory tourist experiences in Southwest Portugal; c) to analyze the connection between corresponding sensory-based themes/segments and performed tourists’ activities; and d) to analyze the connection between corresponding sensory-based themes/segments and tourists’ travel motives for living a rural lifestyle experience and having an active nature-based experience.

“Sensescapes and memories of tourist experiences in the countryside” entitles the empirical **study 4**, which proposes four specific goals, namely: a) to understand the importance of the five senses for individuals to have a positive tourist experience, during and after the visit to the countryside; b) to identify if differences exist between the reported sensory impressions by sensory modalities, during and after the tourists’ visit to the countryside; c) to explore the contribution of *sensescapes* to long-term memory of tourist experiences in the countryside; and d) to contribute to the understanding of the connection between long-term memory of *sensescapes* and destination loyalty.

### **1.3 Clarification of constructs**

According to the main purpose of this thesis of exploring the role of *sensescapes* in tourist experiences in rural areas (section 1.2), some keywords will be highlighted and discussed along the four studies composing this research. Hence, it is considered important an initial clarification of the research key constructs, namely: *sense*, *sensescapes*, *tourist experiences*, *rural tourism experience*, *tourist experiences in rural areas*, and *sensory tourist experiences in rural areas*.

The term *sense* has a double meaning, since it both refers to the idea of “making sense” of something (related to meaning) and to specific sense modes (related to sensation) (Rodaway, 1994). In this study, the expression *sense* is used to refer to the latter meaning, i.e. to the five external sensory organs (sight, hearing, smell, taste, and touch), not precluding however the fact that these two aspects are closely related, since senses act both as information sources and mediators of human experiences (Rodaway, 1994). Moreover, despite the classification of the human senses not being consensual (Howes, 2005; Vannini, Waskul, & Gottschalk, 2011), the classical division into five senses, attributed to Aristotle (Jütte, 2005), has been useful to operationalizing methodologies aiming to analyze the multi-sensory dimension of tourist experiences and determine managerial implications (Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009). The more complex idea of *sensescapes*, carved in human geography field, suggests that all the five senses, and not only sight, can be spatially ordered and contribute to individual experiences with places, such as destinations (Porteus, 1985; Rodaway, 1994). This concept involves the assumption that destinations have unique sensory qualities that can be optimized by destinations in attracting tourists (Dann & Jacobsen, 2003). Thus, *sensescapes* is referred to as sensory experiences of the surrounding environment, such as rural destinations, being each sensory modality particularized, e.g. *smellscape* for olfactory experience.

Taking into consideration that tourists experience destinations, by means of a composite consumption of products and services (Buhalis, 2000; Oh, Fiore, & Jeoung, 2007, Otto & Ritchie, 1996), the concept of *tourist experience* is addressed in this thesis under a managerial approach. It is assumed that the surrounding environment can be planned in order to fulfill or exceed tourists’ expectations by creating conditions for positive experiences that last in memory to emerge (Larsen, 2007; Mossberg, 2007). In light of the above, *tourist experience* is defined as individual and subjective evaluations of events related to tourist activities resulting in specific outcomes, and involving the anticipation and recollection stages in addition to the activity at the destination (Cutler & Carmichael, 2010; Tung & Ritchie, 2011). Accordingly, by referring to *tourist experiences in rural areas*, this research intends to focus on individual and subjective evaluations of events related to tourist activities performed in rural areas. In fact, considering that the definitions of rural tourism range from all tourism activities performed in a rural area (OECD, 1994) to the *purest* form of rural tourism, focused on

the rural character of destinations (Lane, 1994), some authors suggest the use of different expressions for each case - tourism in rural areas and rural tourism, respectively (Lane, 1994; Roberts & Hall, 2001). While considering important to specifically refer to *rural tourism experience*, particularly in the second study, it is used as reference the broad definition suggested by Kastenholz, Carneiro, and Marques (2012, p.248), according to which it is a complex reality lived “by tourists and local residents alike, shaped by local resources and infrastructure, as well as by the specific rural tourism supply and eventually coordinated by a destination management/marketing organization, within a larger system of economic, cultural and social forces.” Since both forms coexist in rural destinations and the focus of this thesis is on the multiple sensory experiences that can be lived by tourists in rural areas, rather than on specific tourists’ motivations for experiencing the rural character of the destination and rural-based activities, it is preferable used the broad expression of *tourist experiences in rural areas*.

What characterizes *rurality* is not consensual neither among authors nor countries. Generally, it refers to rural locations - a stretch of inland or coastal countryside - associated with low population density and small size settlements, agrarian land use and economy, and traditional social structures (Roberts & Hall, 2001). This widespread characterization has influenced the social construction of the countryside and its idyllic representation, which have been reinforced in literature, contributing to tourists’ perceptions of the countryside (Butler, Hall, & Jenkins, 1998; Hopkins, 1996; Roberts & Hall, 2001).

In light of the above, the main construct *sensory tourist experience in rural areas* is here approached as the sensory dimension of the individual and subjective evaluations of events related to tourist activities in rural areas, resulting in specific outcomes, and involving anticipation and recollection stages in addition to the activity at the destination.

## **1.4 Methodology**

### **1.4.1 Setting**

Portugal is a destination fully of contrast, despite being mostly associated with seaside tourism, especially the South, where the Algarve region accounts for the largest

amount of tourists' overnights and lodging accommodation (Statistics Portugal, 2012a). In fact, the diversity of culture, gastronomy, physical geography, and biology, have the potential to invigorate the tourism offerings, prolong the main product life cycle, and address efforts towards diverse segments of tourists (Kastenholz et al., 1999).

Specifically, Southwest Portugal (**Figure 1.1**) is an eclectic area, where the west coast and the inland of the Algarve and Alentejo regions meet, offering diverse rural local resources, apart from the good climate, with the potential to generate multi-sensory effects attracting tourists with diverse motivations. The natural values stand out especially in the Southwest Alentejo and Vicentina Coast Natural Park, extending approximately 100 kilometers along the coast of four municipalities (Vila do Bispo, Aljezur, Odemira, and Sines). A multiplicity of natural resources with over 700 species of plants, many of which are native to Portugal, can be found in the surrounding area, which is also an important stopover for migrating birds. Moreover, dozens of species of mammals and aquatic fauna, some of which are protected species, coexist in the area (Hidroprojecto, 2008). Geologically, a variety of landscapes can also be found, converging in coastal and inland scenarios (ICBN - Instituto de Conservação da Natureza e Biodiversidade, 2005), appealing to rural tourists. Moreover, *Rota Vicentina* was inaugurated in 2011, consisting in a long distance path along 350 kilometers of the Southwest coast prepared for hiking and trekking activities ([www.rotavicentina.com](http://www.rotavicentina.com)).



**Figure 1.1** – Map of Southwest Portugal  
Source: ICBN

Considering that rural areas are known as important boosters of outdoor nature-based tourist activities, which are key motivators for tourists seeking rural destinations (Roberts & Hall, 2004), the potential of rural settings in Portugal, particularly in the Southwest Portugal, is being highlighted as strategic in diversifying the tourist offerings (Appendix 2). When comparing the year of 2007 and 2011, the rural lodging capacity increased 17.6% in Portugal, and Algarve and Alentejo are the regions with the highest increases of 39.2% and 28.5%, respectively, considering the seven NUTS II (Nomenclature of Territorial Units for Statistics: Norte, Centro, Lisboa, Alentejo, Algarve, and Regiões Autónomas dos Açores e Madeira). However, if the comparison is related to the rural lodging capacity between the seven regions, Alentejo occupies the third position, after Norte and Centro regions, and Algarve features the sixth position (Statistics Portugal, 2008, 2012a). Thus, despite the potential of Southwest Portugal as a rural destination, it is acknowledged that this area still lacks a strong rural tourism offering, such as the one that can be found in the North of the country.

#### **1.4.2 Data collection and analyses**

In order to conduct the two empirical studies presented in this thesis (**study 3** and **study 4**), a two-phase data collection process was followed having as target population tourists visiting Southwest Portugal and staying overnight at a rural lodging in the area. Firstly, a self-administered questionnaire was presented to tourists at the end of their visit to Southwest Portugal, from 15 July to 15 December, 2011. This collection of data was conducted in Odemira, Aljezur, and Vila do Bispo, since these municipalities are simultaneously the most representative with respect to the portion of the area included in the Southwest Alentejo and Vicentina Coast Natural Park (Hidroprojecto, 2008), regarding the existing agricultural area, and presenting the lowest population density of Southwest Portugal (< 30 persons per square kilometer) (Statistics Portugal, 2012b, c). Secondly, a second survey was sent to participants by email six months after the visit to Southwest Portugal, using *Google Docs* technology.

The questionnaire presented in loco included four groups of questions with the purpose of assessing the main activities performed by tourists while visiting Southwest Portugal and general information, tourists' sensory impressions, tourists' motivations and destination loyalty, and sociodemographic information, respectively (Appendix 3). The survey was prepared in four languages (English, Portuguese, German, and Spanish)

and submitted to a pre-test with 12 visitors and three academic experts in the field, resulting in minor adjustments regarding vocabulary and design. From the 35 rural places of accommodation that were considered to meet the conditions for participating in the study<sup>1</sup>, 11 (30%) voluntarily agreed to act as venues in which to administer the questionnaire. A sample of 195 tourists was determined using the most conservative estimate for a single proportion (0.5), a confidence level of 95%, and a margin of error of 7%. Tourists older than 17 years were invited to participate in the study. Moreover, only one person from each family completed the questionnaire in order to avoid the risk of quasi doubling a specific answer. The owners and/or managers of the accommodation units were informed about the aims of the survey and received instructions on its application. From the 204 collected surveys, a total of 181 valid questionnaires were obtained, corresponding to 92.8% of the selected sample.

In order to perform the second phase of the data collection, the respondents of the first questionnaire were invited to participate in the second survey at the time of responding to the first instrument. A three step process was followed: a) six months after the visit, an initial email was sent to respondents which authorized the use of their personal information in order to participate in the second survey online; b) one week later, non-respondents were mailed to remind them to complete the survey; c) three weeks later, a final email was sent, reminding non-respondents of the purpose of the second survey. A “Natural Map of the Algarve” provided by Algarve Tourism Board was offered to the respondents. From the 189 valid questionnaires collected in the first phase of the study, 68 respondents (40.0%) authorized the use of their email addresses. From these 68 individuals, 31 (45.6%) answered the second survey. This survey replicated the three groups of questions used in the first moment of the study with respect to: sensory impressions, destination loyalty, and sociodemographic information.

The four studies followed a managerial perspective and a post-positivist approach to the sensory tourist experiences (Govers, Go, & Kumar, 2007; Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009; Ryan, 2000). The use of open-ended questions in self-administered surveys take into consideration the phenomenological nature of the

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<sup>1</sup> The collection of data was conducted with the assistance of the Associação Casas Brancas - Associação de Turismo de Qualidade do Litoral Alentejano e Costa Vicentina and the rural tourism village Aldeia da Pedralva.

experience concept, whilst acknowledging that, despite working holistically, reported sensory impressions can be assessed separately in order to enhance individuals' global experiences. In this context, the use of mixed methods seemed to be appropriate, supporting the use of content analysis followed by quantitative analyses. **Table 1.1** presents a summary of the four studies with respect to the main purpose, data, constructs and variables involved, and analyses followed.

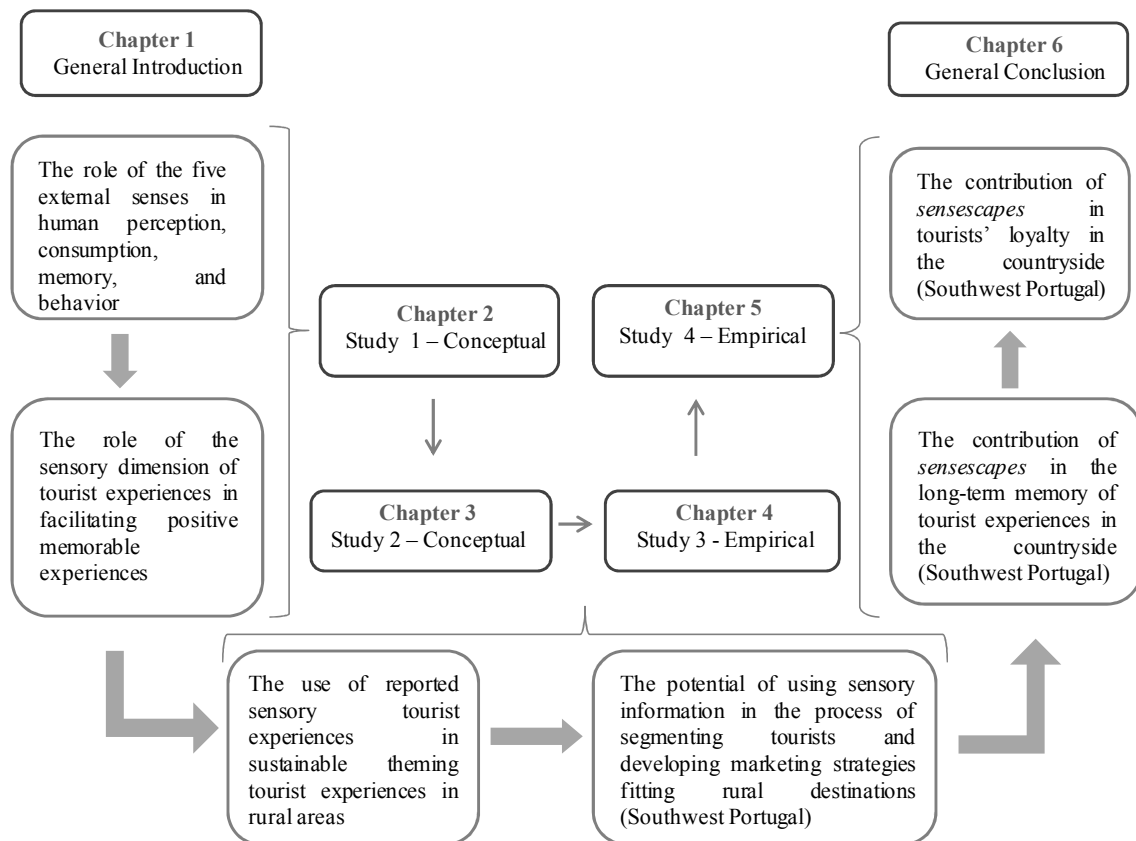
**Table 1.1**

Summary of the four studies

Studies	Purpose	Data	Constructs/ variables	Analyses
Study 1	To contribute to the conceptualization of the sensory dimension of tourist experiences by discussing its theoretical underpinnings	Conceptual	Sensory dimension of tourist experiences	<ul style="list-style-type: none"> <li>- Multidisciplinary literature review on the role of the five external senses in human perception and behavior.</li> <li>- Review of empirical studies addressing holistically the multi-sensory dimension of the global tourist experience (criteria analyzed: studied senses, data, statistical methods, and managerial implications).</li> </ul>
Study 2	To reflect on the role of the sensory dimension of tourist experiences in the marketing of sustainable sensory-themed tourist experiences in rural destinations	Conceptual	Sensory-themed tourist experiences in rural areas	<ul style="list-style-type: none"> <li>- A summary of empirical studies with a post positivist approach to the five senses in marketing and planning tourist experiences support the reflection on the adaptation of existing methodologies to research, aiming at contributing to marketing sustainable sensory-themed tourist experiences in rural destinations.</li> </ul>
Study 3	To use a holistic approach to the five senses, meant to capture meaningful sensory-based themes adequate for segmenting tourists in Southwest Portugal	Answers from a survey presented to tourists in loco	Sensory impressions Tourists' motivations Tourists' activities in loco	<ul style="list-style-type: none"> <li>- Content analysis</li> <li>- Multiple correspondence analysis</li> <li>- Cluster analysis</li> <li>- Crosstabulations</li> <li>- Chi-square test for independence</li> <li>- Descriptive statistics</li> </ul>
Study 4	To contribute to the understanding of the role of <i>sensescapes</i> in facilitating memorable tourist experiences in the countryside and the connection between long-term memory of <i>sensescapes</i> and destination loyalty	Answers from respondents both participating in the studies in loco and a posteriori	Sensory impressions Destination loyalty	<ul style="list-style-type: none"> <li>- Content analysis</li> <li>- Wilcoxon matched-pair signed-rank test for two related samples</li> <li>- Z-test for two independent proportions</li> <li>- Chi-square for independence</li> <li>- Descriptive statistics</li> </ul>

### 1.5 Structure of the thesis

**Figure 1.2** illustrates the structure of the thesis, which consists of six chapters. Three appendices are presented at the end of the thesis. The first chapter introduces the research problem with respect to the role of *sensescapes* in tourist experiences in rural areas and the main purpose of the thesis. This chapter also introduces the four studies integrated in the thesis by presenting their general and specific objectives. A summary of the methodological process used in this research and the thesis outline can also be found in the general introduction. Studies one to four are presented in chapters 2, 3, 4, and 5, respectively. Chapter 6 sums up the studies and clarifies the main contribution and limitations of the research, as well as directions for future research.



**Figure 1.2** - Outline of the thesis

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## CHAPTER 2

### STUDY 1 - EXPLORING THE CONCEPTUALIZATION OF THE SENSORY DIMENSION OF TOURIST EXPERIENCES<sup>2</sup>

#### **Abstract**

This paper aims to contribute to the conceptualization of the sensory dimension of tourist experiences by discussing its theoretical underpinnings. A multidisciplinary approach to the human senses shows their importance to the individual's experience and perception of the surrounding world, recommending the appropriateness of a holistic analysis of *sensescapes* in tourism. A review of empirical studies conducted under the experiential paradigm of tourism on the five human senses (sight, hearing, smell, taste, and touch) evinces the use of both qualitative and quantitative methodologies, which depends on research purposes, but also the practical implications of findings and data analysis to destination marketing and management. The paper discusses the role of the senses in designing tourist experiences, and identifies important topics regarding the study of the sensory dimension of tourist experiences, considering future research opportunities.

**Keywords:** five senses; sensory tourist experiences; tourist experiences; experiential paradigm; *sensescapes*; destination marketing

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<sup>2</sup> Article *in press*

Agapito, D., Mendes, J., & Valle, P. (2013). Exploring the conceptualization of the sensory dimension of tourist experiences. *Journal of Destination Marketing & Management*. DOI: 10.1016/j.jdmm.2013.

## **2.1 Introduction**

Experiences, whether ordinary or extraordinary, transform lives, acting as a means to construct reality (Carù & Cova, 2003). Viewing tourists as peak consumers (Wang, 2002), seeking fantasies, feelings and fun (Holbrook & Hirschman, 1982), the facilitation of extraordinary experiences has become a desired goal in the tourism industry (Walls, Okumus, Wang, & Kwun, 2011a). In this context, the study of the sensory dimension of tourist experiences has recently been pointed out as crucial to supporting decision-makers in enhancing tourist experiences (Gilmore & Pine, 2002; Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009). This goal is informed by the experiential paradigm which poses memorable experiences as a source of competitive advantage for destinations. Memorable experiences can be designed by stimulating all the human senses, leading to personal engagement (Pine & Gilmore, 1998; Schmitt, 1999).

The contribution of the senses to human knowledge has been a topic of reflection since the early days of philosophy (Aristotle, 2001; Plato, 2003) and more recently new philosophical approaches have assisted in the renewal of debate (Merleau-Ponty, 2002 [1945]). In the 20th century, due to paradigm changes occurred in the scientific foundations of psychological research, empirical studies conducted on the physiological basis of human perception have demonstrated the importance of the senses to the building of meaning about the world (Gibson, 1966; Goldstein, 2010). Further developments in research have attracted the attention of the subject among many disciplines, covering a wide range of academic fields, namely sociology (Dewey, 1934; Simmel, 1997; Vannini, Waskul, & Gottschalk, 2011; Veijola & Jokinen, 1994); anthropology (Classen, 1997; Erlmann, 2004; Howes, 1991, 2005); history (Corbin, 2005; Jütte, 2005; Smith, 2007); media studies (MacLuhan, 1994 [1964]); literature (Roberts, 2006; Vinge, 1975); geography (Casey, 1996; Crouch, 2002; Rodaway, 1994; Porteus, 1985; Tuan, 1977); urban studies (Degen, 2008); design (Bonapace, 2002); management (Pine & Gilmore, 1998); marketing (Hultén, Broweus, & Dijk, 2009; Krishna, 2010; Lindstrom, 2005; Schmitt, 1999; Schmitt & Simonson, 1997); neuroscience and neurology (Damásio, 2009 [1995], 2010; Sacks, 2005).

Indeed, places and individuals' surrounding environments have been described as multi-sensory, constituted not only by visual impressions, but also by the associated

sounds, smells, tastes and touch (Ackerman, 1991; Bitner, 1992; Casey, 1996; Heide & Grønhaug, 2006; Howes, 2006; Macnaghten & Urry, 1998; Porteus, 1985; Rodaway, 1994; Tuan, 1977; Urry, 2002). While tourism studies have been systematically centred on a Western view of the tourist experience, based on the ocular attributes (Pan & Ryan, 2009), researchers currently stress the importance of addressing and understanding the role of the body in the tourist experience, focusing on a holistic approach to *sensescapes* (Dann & Jacobsen, 2003; Ellis & Rossman, 2008; Govers, Go, & Kumar, 2007; Gretzel & Fesenmaier, 2003; Kastenholtz, Carneiro, Marques, & Lima, 2012; Pan & Ryan, 2009; Urry, 2002; Veijola & Jokinen, 1994). Thus, although the classification of the human senses is not consensual (Rodaway, 1994; Vannini et al. 2011), the traditional division into five senses, attributed to Aristotle (2001), has been useful to operationalizing methodologies aiming to analyze the multi-sensory dimension of tourist experiences and determine managerial implications.

Nevertheless, tourism studies empirically addressing the role of the five human senses in tourist experiences are still scarce. Thus, more research is needed in order to conceptualize the sensory dimension of tourist experiences and to understand its relationship with the other dimensions of tourist experiences suggested in the literature. To this end, this research seeks: a) to understand the importance of the body to the individual's perception of the surrounding world, in a multidisciplinary approach; b) to contextualize the role of the bodily senses under the experiential paradigm; c) to analyse the role of the five human senses in the models used for staging tourist experiences; d) to identify the methodologies used in empirical research on the role of the five human senses in the overall tourist experience and resulting managerial implications to destinations; and e) to suggest future research opportunities in this area.

## **2.2 Senses: a multidisciplinary state of the art**

There is a complementary and dynamic interaction between the *bottom-up pathway* – the external reality that reaches individuals through the senses – and the *top-down pathway* – the internal realm that influences individuals' perception of the surrounding world, comprising learning, memory, emotions and desires (Martínez, 2012; Zimbardo, Johnson, & Hamilton, 2011). The dynamics of external and internal processes lead to selective attention, a phenomenon which can be exemplified in the

saying of the Chinese writer Lin Yutang: “Half of the beauty of a landscape depends on the region and the other half on the man looking at it” (cited in Martínez, 2012, p. 28). Thus, when an individual is in contact with a specific environment, “interactions occur that entail exchanges of energy” (Martínez, 2012, p.168), and inferences from the stimuli begin to emerge.

Carù and Cova’s (2003) and Walls et al. (2011a) identify diverse definitions of the concept of experience, resulting from multiple disciplinary approaches. Since the senses are seen as crucial to both having and staging the experience, a multidisciplinary approach also seems pertinent in order to gain a better understanding of the complexity of the relationship between human senses and the individual’s experiences and perception of the surrounding world. In fact, despite the traditional classification into five senses, there is no consensus on the number of existing human senses, which is explained partially by multidisciplinary research and the complexity of the subject itself (Vannini et al., 2011).

### **2.2.1 The senses in philosophy**

Divergent philosophical approaches originate from different historic periods regarding the relationship of the senses and the mind. Plato’s idealism posits that the mind is a synonym of thinking and reasoning. In the *allegory of the cave*, which can be found in *The Republic*, the Athenian philosopher (2003) suggests that true reality lies in the unchanging world of ideas, arguing for the existence of universal concepts. The surrounding physical world reaching individuals through the senses is seen as inaccurate, hence deceptive. Following the opposite line of thought, the 18<sup>th</sup> century empiricist David Hume claims that knowledge is ultimately derived from sensory impressions. In this context, he states that individuals only know things that they experience directly, rejecting the existence of innate ideas (Morris, 2011).

Aristotle (2001) adopts a balanced position, claiming that knowledge begins with sense perception, through the apprehension of the external world. Then, an abstraction process allows the essence of objects to be captured. The classical division and hierarchy of the senses into sight, followed by hearing, smell, taste and touch are attributed to the philosopher. In a sixteenth century work, Spinoza develops his theory based on Aristotle’s line of thought, stating that the mind is linked to the human body

and cannot be detached from it, highlighting the role of affect in consciousness (Damásio, 2003a). Under the Enlightenment paradigm, philosophers such as Kant also defended the idea that knowledge of the world begins with the senses, evolving however through understanding and reasoning. A basic assumption of Kant's transcendental approach is the notion that the external reality inside the mind (*phenomenon*) differs from reality in itself, the "thing in itself" (*noumenon*). Scholars view Kant's theory as a compromise between rationalism (*a priori* knowledge of the world, based on reason) and empiricism (*a posteriori* knowledge of the world, based on experience), arguing the existence of *a priori synthetic judgments*, judgments determined by space and time, the *pure forms of sensible intuition* under which individuals perceive the world, but meeting the requirements of universality and necessity (Deleuze, 1994; Vancourt, 1982). Husserl's work, dating from the second half of the 1800s, focuses the attention on the role of the phenomenon created by the interactions between individuals and the world, founding the philosophical school of Phenomenology (Welton, 1999). In *Phenomenology of Perception*, Merleau-Ponty (2002 [1945]) stresses the role of the body in perception, stating that the world is perceived by the individual's body, rejecting the Cartesian dualism of mind and body. Thus, the body is seen as a form of consciousness, its interactions with the world being what constitutes mental states and activities.

### **2.2.2 The senses in neuroscience**

The paradigm of embodiment, which supports the integration of the body and mind, is in line with the latest findings in neuroscience. In *Descartes's Error*, Damásio (2009 [1995]) claims that the factual knowledge that is needed for reasoning and decision-making comes to mind in the form of images. These images appear in all sensorial varieties, not just visual, but sounds, textures, smells, tastes, pains and pleasures, and refer to any object (e.g., person, place, machine) or action that is being processed in the brain, either actually present or to be remembered or imagined. Therefore, during the perception process of events, individuals form *perceptual images* through external sensory stimuli captured by the human sensory sensors. Recalling involves not only assessing these perceptual images, but a reinterpretation and reconstruction of the lived events (Damásio, 2010). The perception, whatever the sensory modality, is the result of the mapping skills of the brain, which produce a mind.

Damásio (2010) also claims that subjectivity, as defined by sentiments, creates the self, which is crucial for having a conscious mind.

Apart from the five human senses (sight, hearing, smell, taste and touch), which provide information on the external environment (*exteroceptive* senses), neuroscience proposes that the sensory signals received by the brain can also derive from the internal body, pertaining to body awareness (*interoceptive* senses). The interoceptive system includes the *proprioceptive* sense (deriving *kinesthesia*, the sense of movement, via the musculoskeletal system), the vestibular sense (balance), the visceral sense, and the sense of the *internal milieu* (pain, temperature) (Craig, 2003; Damásio, 2003b).

### **2.2.3 The senses in psychology**

Krishna (2010, p. 11) stresses that much neuroscience is undertaken to investigate some interesting findings of psychologists, demonstrating why, from a brain's perspective, the identified effects occur. Sensory Psychology considers that sensation involves mental processes necessary for the basic detection of the surrounding world, by which a stimulated sensor receptor creates a pattern of neural messages that represent the stimulus in the brain, initiating the individual's experience of the stimulus. Perceptual Psychology relates perception to the mental processes responsible for interpreting and giving personal meaning to the incoming sensory patterns. Thus, psychologists approach the human senses assuming they are important aspects of the individual's experiences and behavior (Davis & Palladino, 2000; Goldstein, 2010; Zimbardo et al., 2011). Some researchers point out that people are affected by the senses in different ways, and there may be differences regarding people's ability to imagine different sensory patterns, resulting in different responses to sensory stimuli (Sheehan, 1967, cited in Krishna, 2010). Furthermore, profound perceptual deprivations, such as blindness, can enhance the other senses, offering for those who become blind a new way of experiencing the world constructed by the non-visual senses (Sacks, 2005).

Rejecting the senses as merely a channel for sensations, either as proposed by physiological and neuroscience theories or as explained by the activities of the brain, generally suggested by psychology models, the *ecological model* proposed by Gibson (1974) highlights the environment as a crucial determinant of what is perceived,

becoming a source of rich and accurate structured information, which is captured by the senses. Thus, based on the assumption that the senses are more active rather than passive, the psychologist proposes five inter-related perceptual systems: the basic orientating system, the auditory system, the haptic system, the taste-smell system, and the visual system (Gibson, 1966).

#### **2.2.4 The senses in human geography**

In *Sensuous Geographies*, Rodaway (1994) argues that the human senses are mediators in geographical experiences, and thus, in understanding space, place and time. The senses provide information about the environment around individuals (the source of information) and actively structure the information (making-sense of the world). Borrowing from MacLuhan's (1994 [1964]) terms, the senses are both the *medium* through which information is gathered and the *message*, since each sense offers a distinct perspective of the world. Rodaway (1994) explains that although everyday classification relates each sensory impression to specific sense organs, this distinction is not always possible due to the complexity of sense organs. The geographer highlights this complexity by explaining that, for example, tactile sensations involve different regions of body receptors and that it is difficult to distinguish between taste and smell, since these senses always operate closely together. Under this assumption, the author puts forward the idea that the five perceptual systems suggested by the psychologist Gibson (1966) pursue greater accuracy with regard to actual everyday experiences (see section 2.3).

To analyze the relationship between body, people and places, the geographer Porteus (1986) devises the term *sensescapes*, arguing that, similar to the notion of landscapes, with its primarily visual connotations, other senses can be spatially ordered or place related; therefore it would be appropriate to consider also *smellscapes*, *soundscapes*, *tastescapes*, or *geographies of touch* (Urry, 2002). Several researchers in human geography reject the hegemony of vision, highlighting the role of non-visual senses in environmental perception, arguing that “what might first appear to be visual perception may on closer inspection be seen to include important auditory, olfactory, and tactile components” (Rodaway, 1994, p.26). This suggests multiple sensory experiences in geographical encounters (Degen, 2008; Rodaway, 1994), which is the case with tourism destinations (Crouch, 2002).

Therefore, besides the paradigm of embodiment, which implies the integration of mind and body (Damásio, 2009 [1995]; Merleau-Ponty, 2002 [1945]), it becomes important to understand the paradigm of *emplacement* and *sense of place*. This paradigm suggests the sensory interrelationship between body, mind and environment (Tuan, 1977), which is physically, socially, and culturally embedded (Casey, 1996). Accordingly, the senses seem to have an important contribution to *place attachment*, which has been described as the affective bond between an individual and a particular spatial setting (Hidalgo & Hernandez, 2001; Williams, Patterson, Roggenbuck, & Watson, 1992).

### **2.2.5 The senses and the socio-anthropological approach**

According to several researchers (Vannini et al., 2011), the sociological and the anthropological approaches to the senses are related; the body receptors are seen not as passive, but rather as active receptors, which culturally connect individuals to social existence (Dewey, 1934; Howes, 2005; Simmel, 1997). Thus, the study of the senses has been addressed in both social and cultural dimensions.

Degen (2008) explains that regardless of the relationship between body and experience, place experiences are also linked to cognitive processes that are not “merely a subjective activity”, since “the meanings are shared by groups of people as these cognitive structures are expressed in language”, originating “different spatial imaginaries” (Degen, 2008, p.41). Feld (2005, p.179) denotes the sensuous reaction of individuals to place through the expression *sense of place*, arguing that, conversely, places are *sensed* and the senses are *placed*. The researcher suggests the concept of *acoustemology*, claiming that local *soundscapes* can be culturally embodied, using the example of the Kaluli people’s experiences in Bosavi, Papua New Guinea. In 1844’s *Economic and Philosophic Manuscripts*, Marx highlights the supremacy of the senses and its social construction, influencing the work and life conditions of the proletariat, claiming that “the forming of the five senses is a labor of the entire history of the world down to present” (Marx, 1987, p.109). Thus, the studies on the cultural and social dimensions of the senses stress the fact that perception stems from a learned behavior, apart from being physically related (Classen, 1997; Howes, 1991, 2005, 2006) and hostage to place and time (Corbin, 2005; Jütte, 2005; Smith, 2007). The historian Smith (2007, p.3) claims that “senses are historical, that they are not universal but, rather, a

product of place and, especially, time so that how people perceived and understood smell, sound, taste, and sight changed historically.”

### **2.2.6 The senses in marketing management**

The so-called five human senses are of crucial importance to the individual's experience of different purchase and consumption processes. As the literature reveals, it is through the senses that individuals perceive organizations, products and brands (Hultén et al., 2009). Schmitt (1999) postulates that consumer experiences can be characterized by five strategic experience modules: sensory (sense), affective (feel), creative cognitive (think), physical/behaviors and lifestyles (act), and social-identity (social). These modules are circumscribed but are connected and interact with each other. In this context, while acknowledging the multidimensionality of consumer experiences, empirical studies show the pivotal role of the sensory component comparing with other components of consumption experiences (Gentile, Spiller, & Noci, 2007). Brakus, Schmitt, and Zarantonello (2009) confirm the existence of different experience dimensions by developing and validating a brand experience scale that focuses on the sensory component, apart from the affective, intellectual, and behavioral dimensions. The authors suggest further research into the concept of experience within different industries and reinforce the fact that research has shown that increasing and decreasing intensity of experiences can affect their evaluation.

Some researchers claim that the importance of human senses has been neglected for a long time, in spite of their relevance in clarifying brand identity and brand image, and their contribution to providing value to the customer (Krishna, 2010; Lindstrom, 2005; Schmitt & Simonson, 1997). Furthermore, there is a “coordinated role of senses in enhancing positive experiences” (Zurawicki, 2010, p.80), which influences consumer behavior (Derval, 2010). In this line of thought, sensory marketing has the purpose of recognizing “how a firm, through different sensory strategies and sense expressions, can create brand awareness and establish a brand image that relates to the customer's identity, lifestyle, and personality. A firm's sensory marketing approach should, for that reason, be deliberately and strategically based on the five human senses” (Hultén et al., p.6). Krishna (2012, p.332) synthesizes this new approach and broadens the concept into “marketing that engages the consumer's senses and affects their perception, judgment and behavior”. The synergetic relationship between neuroscience, cognitive

psychology, neuroendocrinology and marketing research has generated new insights into the role of the human senses in consumer behavior (Derval, 2010; Krishna, 2010; Zurawicki, 2010).

### **2.2.7 The senses in tourism studies**

Since cultural, social, and geographical factors have historically determined shifts in sensory perception (Classen, 1997; Howes, 2005; Rodaway, 1994; Smith, 2007; Tuan, 1977; Urry, 2008), tourist experiences have been focused on specific senses in different periods (Adler, 1989). Additionally, body, gender and sensuality have attracted some attention in tourism research, in the exploration of the experience in tourism as a corporeal and social construction (Pritchard, Morgan, Ateljevic, & Harris, 2007). Tourism studies have been systematically centred on the visual component of the tourist experience (Pan & Ryan, 2009), mainly focusing on the western-based concept of *tourist gaze* developed by Urry (1990), which has been emphasized by the advent and popularization of cameras and by the practice of mass tourism operators in marking sites to be seen (Ryan, 2003). This does not necessarily mean an ocular predominance in tourist experiences (Adler, 1989; Markwell, 2001; Pocock, 2002), since geographical encounters suggest multiple sensory experiences (Degen, 2008; Rodaway, 1994; Tuan, 1977). Hence, tourists are bodily engaged in sense making of their encounters with destinations (Crouch, 2002). Current literature, including Urry's (2002) analysis, points to the role of all the bodily senses in understanding global tourist experiences, highlighting the need for a holistic approach to *sensescapes*, i.e., adding to *landscapes* other kinds of *scapes*, such as *soundscapes*, *tastescapes*, *haptiscapes* and *smellscapes* (Agapito, Valle, & Mendes, 2012; Dann & Jacobsen, 2003; Ellis & Rossman, 2008; Govers et al., 2007; Gretzel & Fesenmaier, 2003; Kastenholz et al., 2012; Pan & Ryan, 2009; Veijola & Jokinen, 1994).

### **2.3 The senses as a dimension of tourist experiences**

Carù and Cova (2003) and Walls et al. (2011a) extensively review the ways in which the concept of experience has been approached by a variety of academic disciplines, distinguishing general experiences from consumer experiences. While the former occur inside the person and refers to a diversity of encounters, employing a

unique combination of cognitive and emotional elements, the consumer experience is the total outcome of an individual's encounters with products, services and businesses (Lewis & Chambers, 2000). In this context, *staging* the experience (Pine & Gilmore, 1998, 1999), *designing* the experience (Ek, Larsen, Hornskov, & Mansfeldt, 2008), *managing* the experience (Morgan, 2010), *choreographing* the experience (Walls et al., 2011b), *engineering* the experience (Carbone & Haeckel, 1994), *sculpting/crafting* the experience (Ooi, 2005) are common expressions informed by the experiential paradigm, which postulates that the inputs generated by products, services and the surrounding environment can be systematically and voluntarily managed in order to create the conditions for a positive consumer experience that lasts in memory. In fact, according to Larsen (2007, p.15) "a tourist experience is a past personal travel-related event strong enough to have entered long-term memory." In this context, and considering that tourists experience destinations, by means of a composite consumption of products and services (Otto & Ritchie, 1996), it becomes pertinent to understand how to bridge the economic experiential paradigm and tourism (Mossberg, 2007; Oh, Fiore, & Jeung, 2007). With this view, the frameworks for staging tourist experiences have raised the importance of stimulating the senses, in order to reach the heart and the mind of tourists (Mossberg, 2007; Pine & Gilmore, 1998; Schmitt, 1999; Walls et al., 2011a).

### **2.3.1 The senses in the experiential paradigm**

The experience economy paradigm views experiences as a distinct economic offer, occupying a central role in society, and holding a premium position on the four-stage *continuum* of the progression of economic value, after commodities, goods and services (Pine & Gilmore, 1998). In fact, current research shows consumers' preferences for experiences when interacting with products and services, which somewhat dilute the importance of the product itself (Holbrook, 1999; Holbrook & Hirschman, 1982; Hirschman & Holbrook, 1982; Jensen, 1999). Findings in neuroscience and in consumer behavior suggest that consumers are less driven by functional arguments than by internal sensory and emotional elements (Zaltman, 2003), derived from the total experience of consumption events (Carbone, 1998). Since experiences have been described as personal, existing in the mind of an "individual who has been engaged on an emotional, physical, intellectual, or even spiritual level" (Pine & Gilmore, 1998, p.99), they can be staged in order to engage individuals. Thus, as

experiences are personal, i.e. occurring inside the individual's body and mind, the outcome depends on how the consumer, contextualized by a specific situation and mood, reacts to the staged encounter (Csikszentmihalyi & LeFevre, 1990; Mossberg, 2007; Pine & Gilmore, 1999; Walls et al., 2011a).

Thus, contrasting with the information-processing models, based on the utilitarian dimension, the experiential view focuses on the symbolic, hedonic and aesthetic nature of consumption (Holbrook & Hirschman, 1982; Vogt, Fesenmaier, & MacKay, 1993). This form of pleasure-orientated consumption shows that individuals seek positive feelings and sensory stimulation, both associated with hedonic elements. Therefore, this “experiential perspective supports a more energetic investigation of multi-sensory psychophysical relationships in consumer behavior” (Holbrook & Hirschman, 1982, p.134). Managerial implications follow from the fact that engaging consumers in positive physical and social aspects facilitates positive emotional states, satisfaction and loyalty to environments (Bitner, 1992), in which consumers are more likely to spend time and make purchases (Mehrabian & Russell, 1974; Walls et al., 2011b).

### **2.3.2 The senses in the tourist experience models**

Tourism constitutes one of the pioneering examples of the experience economy (Quan & Wang, 2004) as a consumption experience (Woodside, Crouch, Mazanec, Opperman, & Sakai, 2000) of a composite product, comprising lodging, food, transportation, souvenirs and leisure activities (Mossberg, 2007; Otto & Ritchie, 1996). Since “everything tourists go through at a destination can be experience” (Oh et al., 2007, p.120), a multi-sensory nature for tourism products is suggested (Gretzel & Fesenmaier, 2003). In this context, Mossberg (2007) prefers the use of the *experiencescape* concept (O'Dell, 2005) as an extension of the *servicescape* concept (Bitner, 1992). The latter refers to the physical features around a service production, influencing individuals' internal responses and behavior, while the former focuses on the tourists' global consumption, which includes a destination as an experience environment.

Walls et al. (2011a) develop a framework for the composition of hospitality and tourism consumer experiences, combining both business and consumer perspectives of the experience. A business creates and choreographs the experience via physical

environment and emotional/human interaction dimensions, creating the opportunity for an experience, while consumers add the final link, by their choices, motives and inner dispositions related to individual and situational variables. This managerial perspective of orchestrating an environment and circumstances highlights the importance of stimulating the five human senses, as the environment involves physical dimensions that impact on the senses of consumers (Walls et al., 2011a) and support social interactions (Walls et al., 2011b). Accordingly, Carbone and Haeckel (1994) identify two types of context cues able to enhance the consumer experience: *mechanics*, related to the five senses, and *humanics*, emanating from people. Regarding the impact of *mechanics* (sensory impressions), the authors state the importance of using new technologies, which can be applied to trigger appropriate *humanics* clues, as the latter is seen by the researchers as most effective when integrated with *mechanics*.

Inspired by Pine and Gilmore's work (1998), Ellis and Rossman (2008) introduce a conceptual model for staging tourism and recreation experiences, by integrating principles postulated in the literature on customer service and quality management. Thus, the model proposes that attention should be given to two components: the technical performance factors and the artistic performance factors. The former component is drawn from the SERVQUAL model (Parasuraman, Zeithaml, & Berry, 1988), including technical skills, setting and interpersonal performances. The artistic dimension includes the use of a theme, features that provide a multi-sensory performance and an unanticipated value performance. Thus, the authors focus on the value of consumer experiences in the process of purchasing products and services, because experiences should be memorable. Mossberg (2007) stresses the importance of the physical environment in the consumption experience in the context of tourism, by focusing on the relevance of the stimulation of the five senses, apart from other factors such as the personnel performance, the presence of other tourists, the availability of products and memorabilia and the existence of a theme.

In recent work, Cutler and Carmichael (2010) propose a tourist experience conceptual model based on an extensive literature review, combining the personal realm (motivation, expectation, satisfaction/dissatisfaction, knowledge, memory, perception, emotion and self-identity), the influential factors (physical environment, social aspects, and products and services) and the phasic nature of the tourist experience (anticipation, travel to site, on-site activity, return travel and recollection). In this context, the senses

play an important role in the different phases of the tourist experiences, before, during and after the travel. According to Hirschman and Hoolbrook (1982), individuals not only respond to multi-sensory impressions from external stimuli but also generate multi-sensory images within themselves. The internal multi-sensory images can be of two types: *historic imagery* and *fantasy imagery*. The former involves recalling an event that actually occurred, while the latter is generated when the consumer responds by producing a multi-sensory image not drawn directly from prior experience, but drawn from known sensory elements that are brought together in a particular configuration (Singer, 1966). Thus, the imagination process involves also the access to sensory information that is subjected to reconstruction (Damásio, 2010). Accordingly, imagery has been described as a way of processing and storing multi-sensory information in memory, creating a mental picture, not only visual, but including all the sensory impressions in a holistic way (MacInnis & Price, 1987).

### **2.3.2.1 Factors influencing the perception of the overall tourist experience**

Taking into account the models of tourist experiences and the theoretical underpinnings referred above, **Figure 2.1** proposes a conceptual framework which depicts the main external and internal factors that interact and influence the perception of the overall tourist experience, i.e., the process in which the sensory inputs regarding the tourist experience are processed, organized and interpreted (Larsen, 2007). It is adopted the experiential approach which focuses on the external elements that can be partially staged by the destination but also on the internal factors influencing tourist's perception. In the proposed theoretical framework, the knowledge of internal factors is seen as fundamental to efficiently manage the external ones.

The external component encompasses the environmental factors, which comprehend sensory stimuli (visual, auditory, olfactory, gustatory and tactile) and design. The latter tangibilize sensory stimuli through solutions regarding layout, functionality, signs, symbols, and artifacts (Bitner, 1992; Heide & Grønhaug, 2006), which in a destination can be materialized, for example, into driving directions, roads and parking lots design, architectural traces and functionality of accommodation. The environmental factors constitute the setting where the consumption of products (in the broader sense) takes place - tangible products, intangible products (services) and

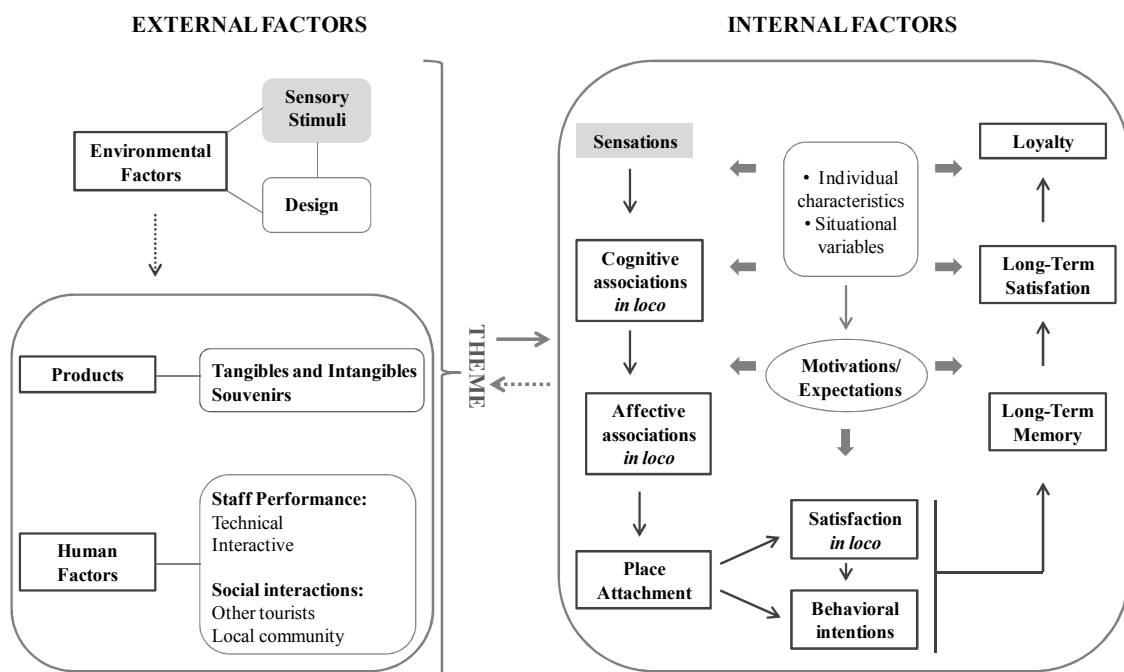
souvenirs, the latter having the specific function of acting as reminders of the tourist experience (Mossberg, 2007). The surrounding environment is also a facilitator of human interactions (Bitner, 1992; Walls et al., 2011a, 2011b). Human factors integrate employees' performance, related to technical and interactive skills, and social interactions with other tourists (Mossberg, 2007), and with locals at the destination (Nickerson, 2006). Moreover, since the environment involving destination experiences can be both physical and virtual, the experience *in loco* could be enhanced by integrating the notion of the multi-phase nature of tourist experiences, the idea of co-creation and the potential of Information Communication Technologies (ICTs) (Neuhofer, Buhalis, & Ladkin, 2012). Hence, stimuli can be managed in both physical and virtual environments thus influencing the perception of the overall tourist experience. Furthermore, since the experiential paradigm poses that the existence of a theme is a requisite for turning a service into a consumer experience (Pine & Gilmore, 1998), facilitating the integration of a destination experiential offering, the external factors partially controlled by the destination should be coordinated around a theme (Mossberg, 2007).

In the internal process of perceiving the overall tourist experience, there is initially an activation of the sense organs by sensory stimuli, named in Psychology as sensations (Goldstein, 2010). Individuals' sensory limitations (e.g., the deprivation of a sense) affect the course of sorting and interpreting the sensory information, through which tourists make cognitive associations and relate positive or negative feelings to the destination. In this individual dynamic process, the cognitive (intellectual) and affective (emotional) associations lead the development of a bond with the destination (place attachment), influencing the outcomes of satisfaction/dissatisfaction during the experience and, consequently, the *in loco* tourist's intentions to recommend and return to the destination (Bigné, Andreu, & Gnoth, 2005; Hwang, Lee, & Chen, 2005; Prayag & Ryan, 2012; Walls et al., 2011a).

After returning home, these perceptual images can be modified, since stories are created, told and compared with those of family, friends and conveyed by other sources of information, such as advertising, websites or social networks. This is a dynamic process leading to long-term satisfaction and loyalty. In fact, many tourists continue to enjoy the pleasure of their experience in the form of dinner-table stories, souvenirs, photo sharing, reconstructing the experience and transforming it in memories that last

(Crouch, Perdue, Timmermans, & Uysal, 2004; Larsen, 2007). Motivations and expectations regarding future destination experiences are impacted by the level of familiarity, expertise and involvement with the destination (Fluker & Turner, 2010); all these aspects influence the perception of the overall tourist experience. It is important to note however that motivations and expectations are updated during the actual experience (Larsen, 2007).

Moreover, individual characteristics, such as personality, cultural background, knowledge, self-identity (Cutler & Carmichael, 2010), physiological specificities (Derval, 2010; Krishna, 2010) and situational variables, such as trip companion (e.g. family, friends, coworkers, partner), nature of the destination (e.g. rural, urban), performed activities, and mood (Walls et al., 2011a) have an impact on perceptual processes and behavioral responses. In this context, the internal factors “determine a person’s disposition” (Gnoth, 1997, p.288) towards the destination, explaining why even exposed to the same external stimuli, individual’s can interpret and react to their experiences differently. Nevertheless, monitoring the existence of patterns in long-term memory, satisfaction and loyalty is a key activity in the management and marketing of themes around destination experiences and corresponding environmental stimuli.



**Figure 2.1** – Factors influencing the perception of the overall tourist experience: conceptual framework

## **2.4 The senses and tourist experiences: empirical studies**

Currently, as shown in sections 2 and 3, the tourism literature pinpoints the importance of visual and non-visual senses to the tourist experience. Nevertheless, while some research has paid more attention to specific senses, such as sight (Adler, 1989), hearing (Pilcher, Newman, & Manning, 2009), smell (Dann & Jacobsen, 2003), taste (*cuisine*) (Hjalager & Richards, 2002) and touch (Pocock, n.d.), there is still a lack of empirical studies addressing holistically the multi-sensory dimension of the global tourist experience, suggesting specific managerial implications for destinations.

As outlined in **Table 2.1**, empirical research adopting a holistic approach to the senses in tourist experiences uses methodologies varying from qualitative methods (Kastenholz et al., 2012; Markwell, 2001; Richards, Pritchard, & Morgan, 2010) to an integration of qualitative and quantitative methods (Agapito et al., 2012; Dann & Dann, 2011; Govers et al., 2007; Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009; Small, Darcy, & Packer, 2012; Son & Pearce, 2005). The studies argue that the embodied cognition approach reflects the process of construction of tourist experiences better than the cognitive approach, assuming that consumer experiences largely derive from patterns of sensory inputs (Gretzel & Fesenmaier, 2003).

Since some researchers pose that much of consumer's thinking occurs unconsciously, whose contents can be elicited through metaphors and stories (Zaltman, 2003), Gretzel and Fesenmaier (2010) suggest the use of elicitation techniques in order to analyze the sensory dimension of the tourist experience. According to the researchers, while quantitative analysis is unable to assess information that is not easily accessible in the consumer's mind, such as that pertaining to sensory experiences, qualitative methods cannot be used for larger-scale studies to extract the dominant experience dimensions necessary to design tourist experiences and develop marketing strategies aimed at specific segments. The authors create a *Sensory Experience Elicitation Protocol* (SEEP), proposing the use of self-administered questionnaires, arguing that this methodology, while effectively eliciting embedded knowledge, can also be applied to a larger sample of respondents. With a similar view, Govers et al. (2007) defend a phenomenographic post-positivist approach, with the use of a narrative format for obtaining sensory information. The researchers suggest a content analysis of a large amount of qualitative data collected in online surveys using artificial neural

network software, followed by a quantitative analysis based on perceptual maps. These methodologies are in line with the idea that greater involvement of individuals in hedonic consumption provides meaningful data regarding perception. Thus, the use of projective techniques in questionnaires, followed by the performance of multivariate methods and statistical hypothesis testing, seems to be adequate (Holbrook & Hirschman, 1982). Accordingly, Agapito et al. (2012), Gretzel and Fesenmaier (2003), and Son and Pearce (2005) use self-administered questionnaires with open-ended questions in order to obtain sensory information, followed by a quantitative analysis. Pan and Ryan (2009) perform a content analysis of travelogues, and design a quantitative analysis with the use of multivariate techniques. A first-person reflexive account is used in particular in the study by Dann and Dann (2011), which is subjected to a quantitative analysis allowing a comparison between the positive and the negative sensory experiences by continents.

Other researchers adopt a qualitative analysis, using semi-structured interviews (Kastenholz et al., 2012), focus groups and in-depth interviews (Richards et al., 2010; Small et al., 2012) or, in other cases, complementing in-depth interviews with participant's diaries, postcards, photographs and other textual and visual material, such as tour brochures, published tour guides and interpretive signs (Markwell, 2001). Observation and personal experience are also indicated as being crucial in interpreting data (Dann & Dann, 2011; Markwell, 2001; Richards et al., 2010; Small et al., 2012).

The phasic nature of tourist experiences plays an important role in the research on the sensory dimension of tourist experiences. Some researchers choose to study the sensory impressions *in loco*, while the tourist is visiting the destination (Agapito et al., 2012; Kastenholz et al., 2012; Markwell, 2001; Son & Pearce, 2005), others ask tourists to describe *a priori* the imagined or desired tourist experience in specific destinations (Govers et al., 2007; Gretzel & Fesenmaier, 2003, 2010), and others analyze the tourist experience *a posteriori* (Dann & Dann, 2011; Pan & Ryan, 2009; Richards et al. 2010; Small et al., 2012), according to the different purposes of the research and the managerial implications.

In general, studies' findings show that, in the overall tourist experiences no single sense seems to dominate constantly and that different sensory information can be bundled together, forming themes in order to communicate destinations and enhance

and stage specific experiences sought by groups of tourists with different profiles (Agapito et al., 2012; Gretzel & Fesenmaier, 2003, 2010). Since Pan and Ryan (2009) found shifts of senses in the tourist's perception of different destinations that are mainly induced by spatial changes, the researchers postulate that it is possible to stimulate different senses through the performance of different activities in the destinations, and design sensory itineraries addressed to different tourists' profiles with specific motivations, including travel journalists. With this in view, the improvement of sensory experiences for visually impaired or deaf-blind visitors is sought by recent studies, highlighting the importance for destinations of addressing non-visual senses, offering accessible tourist experiences for all (Dann & Dann, 2011; Richards et al., 2010; Small et al., 2012). The design of sensory itineraries may also encourage small destinations with similar *sensescapes* to find niches and to promote themselves together (Pan & Ryan, 2009). Additionally, empirical research shows that rather than focusing on the communication of functional attributes, destination marketing websites should include sensory information, such as colors, scents and sounds, in a holistic way. Since people seem to create coherent themes out of sensory experiences, this information can be used for the purpose of experience-based destination marketing on the Internet, by exploring the new technologies available (Gretzel & Fesenmaier, 2003).

Markwell (2001) examines the interactions between tourists and nature and concludes that the body plays a crucial role in lived nature-based experiences. Since the senses are products of culture and history as well as biology, the author postulates that both visual and non-visual senses help tourists to make sense of a place and to arrive at a better understanding of it. The author concludes that the body interferes in the desired nature-based experiences, in both positive and negative ways, suggesting that tour operators should find the equilibrium in mediating the experience. Furthermore, aural, olfactory and tactile senses seem to be more related to natural than to urban environments (Pan & Ryan, 2009), and that multi-sensory elements related to *rurality* and nature should be included carefully and responsibly in the design of appealing and memorable rural tourist *experiencescapes* (Kastenholz et al., 2012).

**Table 2.1**

Empirical research on the multi-sensory dimension of tourist experiences

<b>Authors</b>	<b>Senses</b>	<b>Data</b>	<b>Statistical methods</b>	<b>Managerial implications</b>
<b>Agapito et al. (2012)</b>	Sight, hearing, smell, taste and touch	Self-administered questionnaire to tourists	Content analysis Frequency analysis Chi-square tests	All the five human senses are important in experiencing rural areas, thus sensory information can be used to design, communicate and boost tourist experiences in rural destinations
<b>Dann &amp; Dann (2011)</b>	Non-visual senses	Poems of the deaf-blind author Recorded experiences of the author	First-person reflexive account Frequency analysis Chi-square tests	Industry and research into tourism should approach tourist experiences from the point of view of deaf-blind individuals, since their motivations relates to other than the visual sense.
<b>Govers et al. (2007)</b>	Sight, hearing, smell, taste and touch	Online survey applied to individuals who were asked to describe their image of one of seven case study destinations that they had never visited before, in a narrative format. The central question was formulated through a Delphi-type discussion with eight scientific experts	Content analysis Perceptual maps	The use of artificial neural software and a phenomenographic post-positivist perspective based on multi-sensory interactive narrative allows an alternative measurement technique that can contribute to destination image research and compare destinations and consequently their management.
<b>Gretzel &amp; Fesenmaier (2010)</b>	Sight, hearing and smell	Online survey of individuals who had requested information on Northern Indiana in the Midwest United States – Elkhart County. The survey uses the Sensory Experience Elicitation Protocol (SEEP)	Content analysis Frequency analysis Chi-square tests Cluster analysis	Sensory information bundled into themes is important when designing tourism and leisure experiences and creating effective marketing tools to promote them. Elicitation techniques show potential for making sensory impressions accessible in the minds of consumers, providing a new way of potentially segmenting the market.

<b>Table 2.1 (cont.)</b>				
Authors	Senses	Data	Statistical methods	Managerial implications
<b>Gretzel &amp; Fesenmaier (2003)</b>	Sight, hearing and smell	An online survey was sent to persons who had requested travel information from a Northern Indiana tourism office. Individuals were asked to imagine a desired trip to a destination in the Midwest United States)	Content analysis Frequency analysis Factor analysis K-means cluster analysis	Sensory information can be bundled in meaningful ways. These sensory themes can be used in the context of online destination marketing, such as the websites of destinations.
<b>Kastenholz et al. (2012)</b>	Sight, hearing, smell, taste and touch	The analysis of the sensory dimension of the tourists was part of a global study including different stakeholders. Semi-structured interviews with open-ended questions were used.	Content analysis, validated by a triangulation approach Comparative analysis	Multi-sensory elements related to <i>rurality</i> and nature should be included carefully in the design of appealing and memorable rural tourist <i>experiencescapes</i> .
<b>Markwell (2001)</b>	Sight, hearing, smell, taste and touch	Content, semiotic and textual analyses of the data and self-reflection on participant observation. A researcher-as-tour-leader approach to data collection was used.	Content, semiotic and textual analyses of the data and self-reflection on participant observation. A researcher-as-tour-leader approach to data collection was used.	Sometimes the body interferes in the desired experience in a nature-based context, thus some tourists may desire and be willing to pay for a less mediated experience, with fewer interventions through the tour operator. Nevertheless, a less mediated experience may contribute to greater environmental damage in nature-based contexts.
<b>Pan &amp; Ryan (2009)</b>	Hearing, smell, taste and touch	Travel journalist's reports of New Zealand (199 travelogues)	Content analysis Two-way contingency table analysis Correspondence analysis Senses square analysis	Development of sensory itineraries for travel journalists, enriching the travel experience and leading to the production of richer travelogues that stimulate potential tourists. The methodology can also be applied to the online traveler's reviews. Regions with similar <i>sensescapes</i> can promote themselves together.

<b>Table 2.1 (cont.)</b>				
Authors	Senses	Data	Statistical methods	Managerial implications
<b>Richards et al. (2010)</b>	Non-visual senses	Focus groups with visually impaired persons	Audio-tape transcriptions analysis in order to find the main themes. After the transcriptions were analyzed, the groups were met again in order to obtain their feedback	Under the “hopeful tourism scholarship” emerging paradigm, the researchers contribute to an agenda for tourism researchers working on disability and citizenship. Non-visual senses should be addressed responsibly by national and local agencies responsible for tourism, in order to facilitate positive tourist experiences for impaired people.
<b>Small et al. (2012)</b>	Non-visual senses	People with visual impairment  In-depth interviews and focus groups	Inductive, qualitative and iterative approach  Audio-tape transcriptions were analyzed for emergent themes in a three-stage process.  Organizations and participants were involved in the analysis	The tourism industry should address the multi-sensory nature of the tourist experience in order to design quality accessible experiences, not only for visual impaired, but also for sighted tourists.
<b>Son &amp; Pearce (2005)</b>	Sight, hearing, smell, and touch	Self-administered questionnaires distributed to international students.  Visual impressions were assessed using 12 photographs. Open-ended questions were used to capture non-visual impressions	Content analysis  Frequency analysis  Chi-square tests	Since food can be one of the main parts of the travel multi-sensory experience, and Australian food is seen has disappointing experiences for international students, cuisine should be addressed by marketing strategies, and further image studies related to this component should be developed.

Govers et al. (2007) and Son and Pearce (2005) focus on the importance of including a sensory dimension in destination image studies. Since travel experiences are

multi-sensory, Son and Pearce (2005) propose a conceptual framework based on cognitive, affective and multi-sensory components. Researchers' findings show that the differences identified between sensory impressions can be explained by the differences between the socio-cultural profiles of the tourists. Govers et al. (2007) present an alternative to the attribute-based traditional destination image frameworks based on multi-sensory narratives around which perceptual maps can be constructed, allowing the comparison of destinations and consequently boosting their marketing strategies.

## **2.5 Discussion**

A brief multidisciplinary approach to the human senses shows that the knowledge of places and surrounding environments originates in bodily experience, generating multiple sensory experiences constituted not only by visual impressions, but also by the associated sounds, smells, tastes and touch (Bitner, 1992; Casey, 1996; Heide & Grønhaug, 2006; Howes, 2006; Macnaghten & Urry, 1998; Porteus, 1985; Rodaway, 1994; Tuan, 1977; Urry, 2002). Accordingly, recent work in tourism studies is informed by the embodiment paradigm, which is now widely accepted in science, positioning the body as central to the empirical research on tourist experiences.

This line of thought assumes that stimulating the human senses is crucial to engaging consumers emotionally and intellectually when interacting with products and services (Pine & Gilmore, 1998). Moreover, research points out the surrounding environment as a critical factor in defining the nature of social interactions (Bitner, 1992; Carbone & Haeckel, 1994; Walls et al., 2011b). Accordingly, the models for staging tourist experiences link the embodiment paradigm, the experiential paradigm, and tourism, seeking to understand and operationalize instruments that assist destinations in creating the conditions that enhance the global tourist experience, supporting effective management and marketing strategies (Morgan, Elbe, & de Esteban Curiel, 2009; Mossberg, 2007; Ritchie & Hudson, 2009; Tung & Ritchie, 2011; Volo, 2009; Walls et al., 2011a). This managerial approach presupposes that although experiences are individual and internal, comprised of a constant flow of conscious thoughts and feelings (Carlson, 1997), they can be designed (Stamboulis & Skayannis, 2003) and co-created by the visitor and the supplier (Binkhorst & Dekker, 2009; Prahalad & Ramaswamy, 2004), making the experience more valuable to the consumer

and, consequently, benefiting the provider and the destination (Scott, Laws, & Boksberger, 2009).

Most of the empirical studies on the sensory component of global tourist experiences use qualitative methodologies or an integration of qualitative and quantitative analysis according to the purpose of the research, both strategies proving to contribute with important managerial insights for destinations. In the former, the researchers focus on a deep analysis, particularly directed towards exploratory studies using small groups in responsible tourism research, aiming, for example, at drawing the attention of researchers and the tourism industry to ethical concerns, addressing the issue of accessible tourist experiences for all. This includes the study of the role of non-visual senses in the tourist experiences of visually impaired persons, which is in line with the literature stressing that profound perceptual deprivations imply a new way of experiencing the world (Sacks, 2005). Indeed, a careful reading of the book *A Sense of the World: How a Blind Man became History's Greatest Traveler* (Roberts, 2006) leads the reader to a unique and rich sensory realm of traveling without sight. The results of these groups of studies highlight the need to staging accessible and rich tourist experiences, stressing the potential of new technologies in the performance of destinations. Some advanced examples in the literature are the creation of tactile maps based on sensory information (Gardiner & Perkins, 2005, p. 84) and the use of potential derived from the multiple representational capabilities of mobile electronic devices and multimedia, adapting them to the user's needs at specific moments (Brown & Perry, 2002).

Research using quantitative methodologies shows empirical evidence that sensory themes can be found in the articulation of the different senses (Gretzel & Fesenmaier, 2003, 2010), and that different destinations are associated with specific *sensescapes* (Pan & Ryan, 2009). In this context, it seems relevant to analyzing the benefits of predictive segmentation tools for delivering multi-sensory experiences (Derval, 2010). In a managerial view, for example, gastronomy can be explored as a multi-sensory experience and addressed as a potential niche market (Daugstad, 2008; Everett, 2008; Hjalager & Richards, 2002; Kivela & Crofts, 2006; Quan & Wang, 2004). Since many destination organizations have insufficient budgets to develop marketing strategies with a significant impact in order to contribute to memorable visitor experiences, private and public sector collaboration is needed and synergies between regions should be sought

(Morgan, 2010). Thus, destinations with similar *sensescapes* can promote themselves together or create multi-sensory itineraries providing integrated sensory experiences in neighboring regions (Pan & Ryan, 2009).

Furthermore, traditional forms of communicating destinations should be revised and new technologies and the Internet could assist in the design and development of themes based not only on visual stimuli, but also on non-visual stimuli with optional inclusion of verbal descriptions (Gretzel & Fesenmaier, 2003; Stamboulis & Skayannis, 2003). Since *advergaming* is seen as an opportunity to interactively engage users while promoting destinations (Çeltek, 2010), fun *advergame* experiences about the destination can be created, exploring the synergies between the different types of sensory signals (Zurawicki, 2010). Destinations websites or mobile phones with GPS technology can bring great benefits, providing experiences before, during and after travel (Neuhofer et al., 2012). Additionally, multi-sensory information might be useful in designing personalized geographical technologies, derived from geographical information systems (GIS), which can be used to stimulate and enhance tourist experiences (Brown & Perry, 2002).

Other methodologies, embedded in knowledge of neuroscience, cognitive psychology and neuroendocrinology may prove useful in the future for a deep analysis of the role of sensory stimuli in tourists' emotions and preferences. Moreover, other senses, such as the sense of movement, can be analyzed in addition to the so-called five external senses, in specific tourist experiences, using GPS technology. Nevertheless, the use of digital technologies should be taken as potentially influencing the tourist experience itself.

The existence of few empirical studies embracing a holistic approach of the sensory dimension of tourist experiences proves that there are research gaps future studies should address. In fact, an extensive theoretical research imbedded in a multidisciplinary view is available, but there is lack of empirical studies supporting theoretical frameworks. An experiential view on the role of the five external senses aiming at desired tourist experiences calls for a holistic approach to the topic. Furthermore, empirical research is needed on the relationship between environmental factors and other external factors, on the relationship between the internal factors themselves, and on the relationship between external factors and internal factors.

Although experimental studies in sensory marketing reveal the influence of sensory stimuli in consumer behavior (Krishna, 2010), experimental research is needed in order to understand the role of the human senses in tourist behavior and how individual specificities influence responses. Indeed, insights on internal factors influencing the multi-stage process of the perception of the overall tourist experience are crucial in order to guide efforts in innovative marketing management of sensory stimuli addressed to desired targets, since this is considered fundamental to the sustainability and competitiveness of destinations.

Furthermore, a review of empirical research shows there are more studies addressing urban environments, as already pointed out by Dann and Jacobsen (2003), despite non-visual impressions being related more to rural than to urban areas (Pan & Ryan, 2009). Indeed, few studies focus on the *rurality* of destinations as a central component in the analysis of sensory tourist experiences (Agapito et al., 2012; Gretzel & Fesenmaier, 2010; Kastenholtz et al., 2012). Regardless of this tendency, the richness of the endogenous resources associated with rural areas is ideal for a variety of activities addressing different tourists' motivations (Kastenholtz, Davis, & Paul, 1999; Pan & Ryan, 2009; Roberts & Hall, 2004). In this context, the rural environment, featuring many specific characteristics, can play an important role in conceptualizing appealing tourist experiences, by stimulating a variety of senses (Kastenholtz et al., 2012).

## **2.6 Conclusion**

This paper aimed to discuss the theoretical underpinnings of the sensory dimension of tourist experiences, and to examine the methodologies and managerial findings of the empirical research, following a holistic approach to the human senses in terms of the destination overall experience.

In this study it is argued that the analysis of the sensory dimension of tourist experiences is relevant, since: a) human senses are crucial to the individual's perception of the world; b) sensory stimuli influence consumer behavior; and c) places and environments, such as destinations, are multi-sensorial, providing multi-sensorial encounters. Therefore, multi-sensory information regarding tourist experiences seems to be important in destination marketing and management.

Nevertheless, several authors indicate the need to preserve the autonomy of participants, pointing to the motivational factors that have a pivotal role in the individual experience and in its evaluation (Binkhorst & Dekker, 2009; Ellis & Rossman, 2008; Prahalad & Ramaswamy, 2004). Volo (2009) stresses that the challenges for destination marketing and management involve, therefore, transforming the designed experience offerings into personalized experiences. In this context, sensory stimuli can be explored not only in physical environments but also in virtual environments, using the potential of ICTs in the different moments of travel (Neuhofer et al., 2012), enhancing the actual experience of the destination itself, resulting in more positive responses.

Depending on the purpose of the research, authors follow qualitative methodologies or use both qualitative and quantitative methodologies. Studies particularly seeking managerial implications for staging tourist experiences prefer the use of mixed methods, as a qualitative approach is able to make a better assessment of complex sensory information, while a quantitative approach can be used for larger samples, in order to extract significant sensory information necessary for tourist segmentation and to design tourist experiences and manage and marketing the destination.

Although conceptual frameworks for staging memorable tourist experiences include the sensory component, pertaining to the environmental factors, there is still a lack of empirical studies particularly on: a) the relationship between the sensory and the other external factors for staging tourist experiences; b) the comparison of the role of human senses in the different moments of the travel; c) the influence of specific internal factors on the perception of sensory tourist experiences d) the influence of sensory stimuli on internal factors of tourist experiences; e) the relationship between the external human senses, understanding how stimulating one sense will affect the others; f) the influence of the activities performed in destinations on the sensory tourist experiences; g) the differences between the urban and the rural multi-sensory experiences; h) the role of human senses in designing experiences for impaired tourists; and i) the tourists' segmentation based on sensory experiences.

While acknowledging that more efforts in conceptualization and empirical evidence are needed, this paper argues that the multi-sensory component of the tourist

experience is set on the tourism research agenda, posited as vital for designing positive overall destination experiences. The interplay of the human senses actively mediates tourist experiences and intimately links to the life of the emotions of the experiential paradigm, which has dethroned the intellect as central in the studies on consumption.

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## **CHAPTER 3**

### **STUDY 2 - A CONTRIBUTION TO MARKETING SUSTAINABLE SENSORY-THEMED TOURIST EXPERIENCES IN RURAL DESTINATIONS<sup>3</sup>**

#### **Abstract**

Rural destinations are characterized by a rich and diverse collection of endogenous resources, ideal for conceptualizing unique multi-sensory tourist experiences involving and benefiting all destination stakeholders. Hence, this paper advocates that analyzing sensory information as perceived by tourists while experiencing the countryside may contribute to marketing sustainable sensory-themed tourist experiences in rural destinations. Since sensations are crucial for human perception of the surrounding environment, sensory stimuli have been suggested as facilitators of positive and memorable consumer experiences. Recently, tourism studies have recognized that destination experiences may be associated with different bundles of sensory impressions pertaining to specific resources that can be explored as themes in careful marketing of tourist experiences in the countryside. Sensory themes have the potential to be useful in profiling tourists and assisting rural destinations in the planning of the overall tourist experience aiming at the optimal use of local resources. Furthermore, the activity of exploring sensory tourist experiences in rural areas is relevant since, facing growing competition and tourists increasingly demanding a variety of experiences, rural destinations are calling for creative and cooperative offerings and communication strategies addressed at referencing consumers fitting the identity of the destination and boosting destination competitiveness and sustainability.

**Keywords:** sensory tourist experiences; *sensescaples*; themes; sustainable marketing; rural tourist experience; rural destinations

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### **3.1 Introduction**

The sensory dimension of tourist experiences has been overlooked in the tourism literature (Urry, 2002), especially in the context of rural destinations. To date, urban environments have been highlighted (Dann & Jacobsen, 2003), despite the endogenous resources available in rural areas offering diverse sensory stimuli (Kastenholz, Carneiro, Marques, & Lima, 2012<sup>4</sup>) considered to be vital in achieving the desired goal of the tourism industry in facilitating the co-creation of rich and unique destination experiences effective in attracting visitors (Mossberg, 2007) and competing for attention (Ooi, 2005). Facing growing competition and a demanding international market increasingly interested in living diversified and unique experiences, rural destinations and individual tourism businesses should find innovative and creative strategies to enhance tourist experiences in a sustainable way (Kastenholz, Carneiro & Marques, 2012<sup>5</sup>; Lane, 2009).

Currently, several researchers are stressing the need to consider multi-sensory information in understanding and planning tourist experiences (Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009), an approach embedded in a multidisciplinary view of the senses. In fact, a wide range of academic areas has reflected on the crucial role of the senses in human knowledge and sense making of the world by providing information on the surrounding environment, mediating everyday experiences and influencing individuals' behavior (Damásio, 2009; Howes, 2005; Merleau-Ponty, 2002; Rodaway, 1994). In this context, despite the existence of other human senses related to internal stimuli, marketing has directed special attention to the so-called five human senses (sight, hearing, smell, taste and touch), specializing in capturing and conveying external stimuli (optical, acoustic, olfactory, gustatory and tactile) to the brain (Zurawicki, 2010). Therefore, this approach poses sensory stimuli as central in the marketing of appealing consumer experiences (Krishna, 2012; Pine & Gilmore, 1998; Schmitt, 1999).

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<sup>4</sup> Further references to this article in this study will be as follows: Kastenholz et al., 2012a.

<sup>5</sup> Further references to this article in this study will be as follows: Kastenholz et al., 2012b.

Rural destinations, traditionally considered more vulnerable to negative impacts of tourism in view of the related environmental, social and cultural values, and economic fragilities, have been calling for a careful marketing approach (Lane, 1994a). Indeed, increasing concerns with social and environmental issues in society in general, and in tourism in particular, have determined the extension of marketing management orientation (Sharpley & Pearce, 2007). Thus, marketing is not only concerned with what offerings should be engineered but also the resources required to develop these offerings; this is the basis of the concept of sustainable marketing (Fuller, 1999). In this context and following the idea that focusing on the customer is key for transforming *comparative* into *competitive* advantage (Crouch & Ritchie, 1999), a *management of demand* perspective (Kastenholz, 2004) is called for. This perspective aims to maximizing the benefits and minimizing the negative impacts of tourism development (Middleton & Hawkins, 1998) and contributing to harmonizing tourists' increasing demands for a variety of active experiences in rural areas, local tourism providers' interests and local communities' desire for sustainable development (Lane, 1994a).

The diversity of tourists' motivations for choosing a rural destination for vacations results in a multiplicity of desired activities and perceptions (Roberts & Hall, 2001). Therefore, the use of meaningful themes integrating the multiplicity of rural resources and services may be useful in marketing rural tourist experiences in a sustainable manner (Kastenholz et al., 2012b). Considering the importance of sensory elements in the process of staging the environment for desired individual experiences to emerge (Agapito, Mendes, & Valle, 2013; Mossberg, 2007; Pine & Gilmore, 1998), analyzing sensory tourist experiences as perceived is an appropriate means of understanding and meaningfully theming destination experiences (Pan & Ryan, 2007). Moreover, the literature stresses the potential of using sensory themes in profiling rural tourists (Gretzel & Fesenmaier, 2010) and, accordingly, in planning and promoting appealing sensory experiences to reference consumers fitting the destination identity by involving the community and tourists in a sustainable way (Kastenholz et al., 2012b). Against this background, this paper aims to reflect on the role of the sensory dimension of tourist experiences in marketing sustainable sensory-themed tourist experiences in rural destinations by bringing a framework into the discussion.

### **3.2 Methodological note**

The framework presented in this study is couched in previous research informed by a multidisciplinary view on the so-called five external senses using a managerial approach to tourist experiences in general and rural tourist experiences in particular. With this light, based on the research of Agapito et al. (2013), examples of seminal works on diverse academic fields were used to illustrate the importance of the senses to the human perception of the surrounding world, with particular emphasis on the role of the sensory dimension of consumption experiences. Furthermore, relevant journal articles and books with a managerial approach to tourist experiences, focusing on the role of sensory stimuli, were identified by tracking references in online scientific databases. Particularly, a summary of empirical studies using a post positivist approach to the five senses in the marketing and planning tourist experiences supported the reflection on the adaptation of methodologies to research concerned with marketing sustainable sensory-themed tourist experiences in rural destinations. Accordingly, the process of tracking relevant research was also focused on the specificities of marketing and planning rural tourist experiences, and related sustainability issues.

### **3.3 The role of the senses in sustainably theming tourist experience in rural destinations**

A marketing approach to tourist experiences in rural destinations should center on carefully facilitating rich, positive, and diversified experiences by achieving balance in preserving endogenous resources, residents' quality of life, tourists' quality of visit, tourism providers' benefits and, consequently, aiming at local sustainable development (Kastenholz et al., 2012b; Lane, 1994a; Manente & Minghetti, 2006). In spite of the existing opportunities for all stakeholders in actively co-creating tourist experiences in rural areas (Kastenholz et al., 2012a), potentially benefiting all those involved in the process, it is important to note that "the countryside is especially at risk from unmanaged – or ill-managed – tourism" (Lane, 1994b, p.19).

In this context, marketing quality tourist experiences is an activity with the potential to benefit the destination in the long term (Jennings & Nickerson, 2006). First, the quality of local resources constitutes what initially attracts visitors to rural

destinations. Thus, an increase in demand may result in more pressure to preserve destination assets (Clarke, 1997). Second, unique and appealing sensory experiences are considered to have the potential to be priced as *premium* offerings (Pine & Gilmore, 1998), thus benefiting local providers. Third, the process of exploring themes is a marketing tool that assists in conceptualizing engaging experiences addressed at specific tourist profiles (Kastenholz et al., 2012b). Accordingly, and bearing in mind that rural areas lack the iconic features of urban destinations which result in offering very similar core products (Haven-Tang & Jones, 2010), the marketing of rural destination experiences should focus on unique endogenous resources, as well as on the local identity, in order to provide multi-sensory themed quality consumption experiences.

### **3.3.1 Sensory stimuli in consumption experiences**

The role of sensory stimuli in originating sensations – the activation of the sensory organs (eyes, ears, nose, skin, and taste receptors) and transformation of the outside stimuli in neural signals – acting as the initiator of the human perceptual process, has been shown by psychology. Perception is essential to making sense of the world by giving meaning to sensations and consequently by influencing human action. In relation to this, perception can be defined as a “conscious sensory experience” (Goldstein, 2010, p.8), deriving from the “sequence of processes that work together to determine our experience of a reaction to stimuli in the environment” (Goldstein, 2010, p.5).

Accordingly, marketing has been developed through addressing efforts, based on the stimulation of the five human senses, at engaging consumers (physically, intellectually, emotionally, and socially) by providing the appropriate environment for the desired personal consumer experiences to emerge (Carù & Cova, 2003; Gentile, Spiller, & Noci, 2007; Schmitt, 1999). The rise of the concept of sensory marketing is thus in line with the consolidation of the underlying concept of the *experience economy* (Pine & Gilmore, 1998), according to which the consumers most value the way of consumption (hedonic), rather than the products and services themselves (Holbrook & Hirschman, 1982). Sensory marketing can thus be defined broadly as the “marketing that engages the consumer’s senses and affects their perception, judgment and

behavior” (Krishna, 2012, p.332). This view is consolidated by increasing developments in neuroscience offering important insights into consumer psychology (Plassmann, Ramsøy, & Milosavljevic, 2012) and encouraging the development of new approaches highlighting the managerial aspects of sensory stimuli, such as neuromarketing (Zurawicki, 2010) or behavioral neuroendocrinology perspectives (Derval, 2010). Indeed, while acknowledging the multidimensionality of consumer experiences, so that a good experience should holistically and consistently involve individuals at different levels (Gentile et al., 2007), empirical marketing studies show the pivotal role of the sensory component compared with other components of consumption experiences. Brakus, Schmitt, and Zarantonello (2009) conclude that the sensory dimension is the most relevant in terms of *brand experience* compared to the cognitive, affective, social and behavioral dimensions, whilst Gentile et al. (2007) reveal that the value associated with the sensorial component is substantially higher when compared to the emotional, cognitive, pragmatic, lifestyle and relational components in co-creating value with the customer.

### **3.3.2 Sensory stimuli in tourist experiences**

By extending the focus on the relationship between the body and people to places, the geographer Porteus (1986) conceptualized the concept of *sensescapes*, arguing that, similar to the notion of landscape with its primarily ocular connotations, other senses can be spatially ordered or place-related, resulting in *soundscapes*, *smellscapes*, *tastescapes* or *hapticscapes* (Urry, 2002). This idea suggests multiple sensory experiences in geographical encounters (Rodaway, 1994), such as in tourism destinations (Crouch, 2002). Whilst previous tourism studies have been centered systematically on the visual component of the tourist experience, current research aims to take a holistic approach to the five senses with a view to understanding their role in the global tourist experience (Dann & Jacobsen, 2003; Gretzel & Fesenmaier, 2003; Kastenholz et al. 2012a; Pan & Ryan, 2009). Accordingly, the frameworks for marketing and managing tourist experiences have raised the importance of stimulating the five human senses – sight, hearing, smell, taste, and touch – in order to reach the hearts and minds of tourists (Mossberg, 2007; Schmitt, 1999).

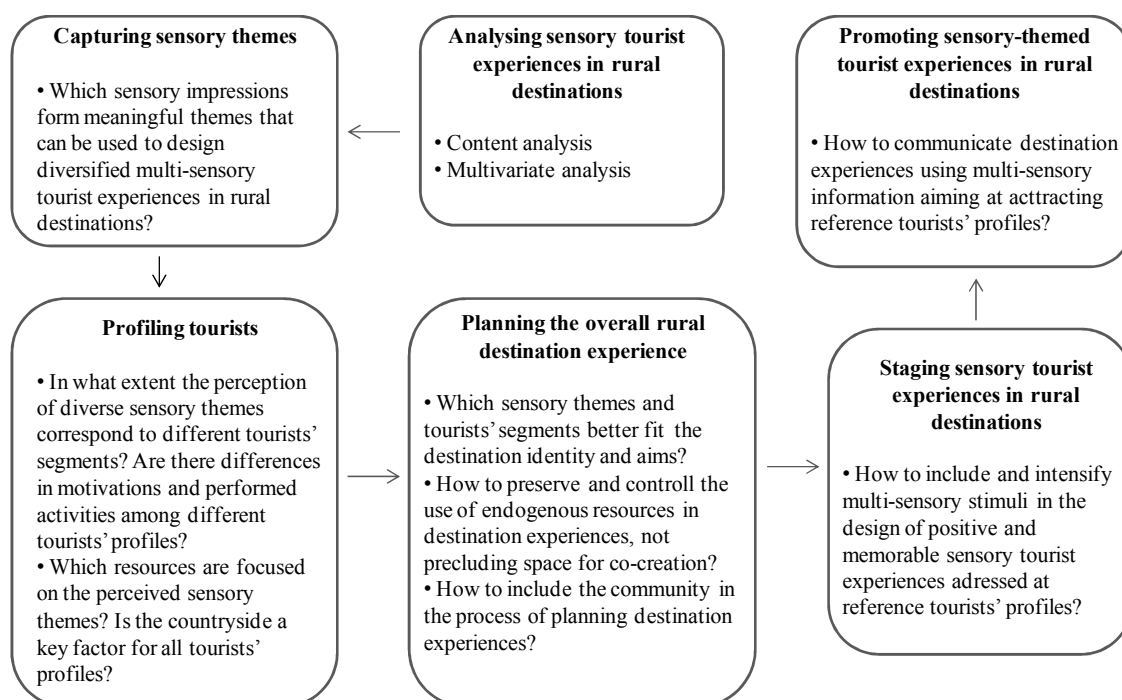
In this context, sensory stimuli integrate the external factors (environment, products, and human interactions) influencing the perceptions of tourist experiences that can be partially staged and coordinated around a theme in order to facilitate the integration of an experiential offering and as a result achieve positive outcomes (Cutler & Carmichael, 2010; Ellis & Rossman, 2008; Mossberg, 2007). Specifically, sensory stimuli are addressed as environmental factors, composing the physical/virtual setting in which the consumption of products (tangibles and intangibles) takes place (Bitner, 1992; Neuhofer, Buhalis, & Ladkin, 2012). Furthermore, research suggests that the surrounding environment is a facilitator of social interactions (human factors) (Walls, Okumus, Wang, & Kwun, 2011). From this perspective, research on tourism using the experiential approach stresses the crucial role of sensory stimuli in designing the *experiencescape*, i.e., the destination experience environment, leading to tourists' positive emotions, satisfaction, long-term memory and loyalty (Heide & Grønhaug, 2006; O'Dell & Billing, 2005).

The countryside is well known as comprising a collection of diverse undeveloped resources such as vegetation, soil, wildlife, water, and natural landscapes, and for being associated with cultural values pertaining to handicrafts, gastronomy and local traditions (Roberts & Hall, 2001). In addition, the countryside relates to economic activities linked to agriculture and fisheries; these attract tourists, whether seeking the rural idyll or wishing to experience the diverse outdoor tourist activities offered in rural settings (Butler, Hall, & Jenkins, 1998; Lane, 1994b). As a result, the variety of natural and cultural resources available in rural areas contributes to generating an environment in contrast to urban areas (e.g., pollution and congestion) and valued for that reason. The countryside provides not only rich visual stimuli but also other multi-sensory effects that can be experienced by tourists and consequently be managed by the destination in order to boost tourists' overall experience (Kastenholz et al., 2012a).

### **3.4 Proposing a framework for marketing sustainable tourist sensory-themed experiences in rural destinations**

The above multidisciplinary literature review evinces the primary role of the senses in consumption experiences and thus consolidates the idea that sensory elements can be used as a starting point for responsibly marketing tourist experiences in rural

destinations. Before presenting the proposed framework (**Figure 3.1**), it is important to note that there is no consensus on the concept of rural tourism among countries and policy entities (Roberts & Hall, 2001). The concept ranges from comprising all tourism activities performed in a rural area (OECD, 1994), including less specialized forms of rural tourism, to the *purest* form of rural tourism, which is focused on the *rural* character of the destination (Lane, 1994b). Since both forms result from different tourist motivations coexisting in rural areas each destination should analyze their specific characteristics and market tourist experiences according to broader destination planning (Lane, 1994a; Roberts & Hall, 2004). Given the complexity inherent in marketing rural tourism, Kastenholz and colleagues (2012b, p.248) conceptualize the rural tourism experience as a complex reality lived “by tourists and local residents alike, shaped by local resources and infrastructure, as well as by the specific rural tourism supply and eventually coordinated by a destination management/marketing organization, within a larger system of economic, cultural and social forces.” The phases identified in **Figure 3.1** will be summarized and specific research targeted at investigating the topics in greater depth will be indicated.



**Figure 3.1** - Proposing framework for marketing sustainable sensory-themed tourist experiences in rural destinations

### **3.4.1 Analyzing tourist experiences and capturing sensory themes**

The rural tourism literature identifies some themes mainly linked to the images that urban populations (the main visitors to rural destinations) associate with rural areas. A central theme is an idea stemming from a narrative that is being communicated (Moscardo, 2010). From a managerial perspective, it is the underlying concept around which a consumer experience is coherently organized in a particular place, connecting several services and products (Pine & Gilmore, 1998). Common associations relate to untouched landscapes, pastoral retreats, the traditional idyll, slower and authentic lifestyles, nostalgic environments, and closeness to nature (Butler et al., 1998). However, rural areas have increasingly become spaces of consumption as opposed to spaces of production, with agriculture losing its dominant position and social structures changing dynamically (Roberts & Hall, 2001), and tourists of a different profile are seeking rural areas in which to spend their holidays. This phenomenon has resulted in divergent experiences and perceptions of rural destinations (Kastenholz, Davis, & Paul, 1999), making the study of tourists' perceived themes relevant for marketing purposes.

Research taking a managerial perspective and using mixed methods to analyze sensory tourist experiences provides empirical evidence that sensory themes can be found in the articulation of different sensory impressions (Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009). These empirical studies take into account the phenomenological nature of the experience concept, first by suggesting that a content analysis of reported sensory experiences can be undertaken (e.g., through open-ended questions, or travelogues), effectively drawing out embedded knowledge. The second phase is a multivariate analysis (e.g., correspondence analysis, or factor analysis) of the coded sensory categories derived from content analysis, permitting the intersection of the sensory variables identified to find sensory themes, and the crossing of sensory categories and variables related to the visitor, allowing association between the different sensory themes to different individual profiles (e.g., cluster analysis).

In order to assess information that is not easily accessible in the consumer's mind, such as that pertaining to sensory experiences, and to use large samples enabling the extraction of the dominant bundles necessary to develop marketing strategies aimed at specific segments, Gretzel and Fesenmaier (2010) created the *Sensory Experience Elicitation Protocol* (SEEP). This instrument consists of a self-administered

questionnaire containing open-ended questions. In a similar vein, Govers, Go, and Kumar (2007) argue for a phenomenographical post-positivist approach using a narrative format in an online survey to obtain sensory information regarding destination images and employing artificial neural network software to perform a content analysis followed by the construction of perceptual maps.

By analyzing tourist travelogues, Pan and Ryan (2009) found shifts in senses in the perception of different destinations in New Zealand mainly induced by spatial changes (e.g., rural versus urban), showing that it is possible to associate different destinations with specific *sensescapes* and to manage sensory stimuli conveyed in destination experiences. Gretzel and Fesenmaier (2010) found that multi-sensory information extracted from perceived tourist experiences was suitable for theming experiences in a rural destination in northern Indiana, in the Midwestern United States.

### **3.4.2 Profiling tourists**

The benefits derived from tourism market segmentation, a process that consists of finding homogeneous groups of tourists sharing similar needs and wants and requiring specific tourist product offerings and marketing mixes (Middleton & Hawkins, 1998), have been discussed extensively in the tourism literature and specifically in rural tourism studies (Park & Yoon, 2009). Given the diversity of tourists seeking rural destinations, niche markets might possibly emerge aimed at gaining competitive advantage and efficiently allocating marketing efforts towards profiles that afford greater attraction to the destination (Kastenholz et al., 1999; Lane, 2009). Despite the benefits of finding niche markets, this should be a process undertaken with care since individuals are increasingly interested in participating in a wide range of activities in rural destinations, resulting in some difficulty in the identification of a product's core value (Roberts & Hall, 2004).

Some researchers advise that commonly used demographic variables relating to market division, although useful in travel research, do not explain underlying motivations for travel since they look only at the characteristics of individuals (Plog, 1994). Other bases for profiling rural tourists for marketing management purposes have

proved useful, such as the benefits sought, motivations or activities (Kastenholz et al., 1999; Park & Yoon, 2009).

According to the literature, perceived appeals to the senses seem to be appropriate for the activity of profiling rural tourists, since a) perceptions of destination experiences implicitly incorporate personal interests (performed activities) and other psychographic characteristics, and b) sensations are at the core of perceptual processes (Goldstein, 2010). In line with this, Gretzel and Fesenmaier (2010) show that although demographic variables do not significantly differentiate sensory-based clusters, activities performed in the destination influence overall destination sensory experience.

### **3.4.3 Planning and promoting sensory-themed tourist experiences in rural destinations**

With a view to providing long-term benefits to destination stakeholders, tourist profiles should be sustainably matched to the potential of destinations' resources, this being a process expected to increase the levels of satisfaction of both visitors and the destination community, mitigating the gap between expectations and experiences (Dolnicar, 2004; Kastenholz, 2004).

Against the tendency to evaluate resources in an individualistic manner, a holistic approach to the overall tourist experience in the countryside follows from the idea that it is important to generate synergies with different resources within the rural destinations (Cawley & Gillmor, 2008). As part of the character of rural destinations, communities should also be involved in the process of creating quality rural tourism offerings (see, e.g., Kastenholz et al., 2012a, b), providing confidence to tourists in taking longer rural holidays (Lane, 2009). Hence, rural destinations can effectively use their multi-sensory resources (e.g., fauna, flora, landscapes, material and non-material cultural heritage, and gastronomy) to conceptualize quality themed experiences that immerse visitors in perceived authentic local atmospheres and that are aimed at generating sustainable competitive advantage (Haven-Tang & Jones, 2010). Furthermore, bearing in mind that outdoor recreation in natural areas has aesthetic implications affecting the quality of the visitor experience (Pilcher, Newman, & Manning, 2009), targeting specific profiles of tourists facilitates easy management of outdoor activities.

Moreover, since small destination tourist organizations have insufficient budgets to develop marketing strategies with significant impact, the private and public sectors should collaborate. Neighboring regions associated with specific sensescapes may conceptualize offerings to different profiles of tourists together, in particular exploring niche markets (Morgan, 2010; Pan & Ryan, 2009; Roberts & Hall, 2004). Furthermore, sensory themes and information communication technologies (ICTs) should be considered together in order to boost destination experiences before, during and after travel (Gretzel & Fesenmaier, 2003, 2010; Neuhofer et al., 2012; Stamboulis & Skayannis, 2003). Moreover, co-creative management in a network based on specific themes calls for creative industries (e.g., films, architecture, and music) to assemble unparalleled experiences in rural destinations (Mossberg, 2007; Kastenholz et al., 2012b). In addition, the institution of a destination management organization is crucial for encouraging cooperation and assuring that a destination has a coherent system of offerings (Manente & Minghetti, 2006).

Some studies advise that traditional forms of communicating the benefits of destinations should be revised and ICTs could assist in promoting destination experiences based not only on visual stimuli but also on non-visual stimuli (Gretzel & Fesenmaier, 2003). Stimulating the senses is a tool with the potential to trigger intense emotions and thus sensory-themed communication based on consumer sensory experiences is important with respect to boosting brand attachment (Gretzel & Fesenmaier, 2010). Collaborative marketing strategies may result in sensory-based creative communication events, such as the development of multi-sensory routes addressed at travel journalists (Pan & Ryan, 2009) or the use of local gastronomy to promote interactive sensory tourist experiences (Daugstad, 2008).

### **3.5 Conclusion**

This paper discusses the importance of the sensory dimension of rural tourist experiences and suggests a framework contributing to marketing sustainable sensory-themed tourist experiences in rural destinations. The analysis of perceived sensory tourist experiences in the countryside is considered a pertinent starting point for this process since, according to the literature presented, sensations are crucial for human perception of the surrounding world and thus sensory stimuli are considered to underpin

the provision of satisfying environments for the consumption of tourism products and services, boosting human interactions. Furthermore, sensory appeals are appropriate for theming tourist experiences, the theme being a prerequisite for the conceptualization of positive, unique and memorable tourist experiences by coherently integrating destination offerings. The process of analyzing sensory themes perceived as meaningful assists in understanding which endogenous resources are emphasized according to different tourists' motivations and activities, contributing to profiling tourists and recognizing the importance of the countryside itself for the tourist experience. As a result, sensory themes may be used to conceptualize and promote creatively rural tourist experiences to reference tourist profiles, exploring both the idea of the multi-phased nature of tourist experiences and the potential of ICTs. Moreover, the efforts in matching *sensory experience-based* tourists' profiles to destinations encourage the integration of the local community and the optimal use of resources in the planning of the overall rural destination experience, benefiting the stakeholders involved and boosting the destinations' competitiveness and sustainability.

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## CHAPTER 4

### STUDY 3 - THE SENSORY DIMENSION OF TOURIST EXPERIENCES: CAPTURING MEANINGFUL SENSORY-BASED THEMES IN SOUTHWEST PORTUGAL<sup>6</sup>

#### **Abstract**

Sensory aspects of destinations have recently been in focus as an important dimension in the process of facilitating positive tourist experiences. Specifically, the countryside embraces local resources rich in multi-sensory effects that could be utilized in the planning and marketing of appealing tourist experiences addressed to segments of tourists fitting sustainable local development. This study follows a holistic approach to the five external human senses, aiming to capture meaningful sensory-based themes adequate for segmenting tourists in rural destinations. A self-administered survey in four languages was collected from 181 tourists in Southwest Portugal. A multiple correspondence analysis suggests four sensory-based themes, tentatively named rural experience, generic beach-related experience, nature-based experience, and balanced experience. The proposed themes correspond to a four-solution cluster of tourists presenting different profiles.

**Keywords:** sensory tourist experiences; themes; multiple correspondence analysis; segmentation; rural destinations; Southwest Portugal

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## **4.1 Introduction**

The sensory dimension has been posed by recent tourism literature as key to understanding, planning, and marketing tourist experiences (Agapito, Mendes, & Valle, 2013; Crouch, 2002; Dann & Jacobsen, 2002, 2003; Ellis & Rossman, 2008; Everett, 2008; Gretzel & Fesenmaier, 2003, 2010; Heide & Grønhaug, 2006; Jacobsen, 1997; Kastenholz, Carneiro, Marques, & Lima, 2012<sup>7</sup>; Markwell, 2001; Middleton, 2011; Mossberg, 2007; Oh, Fiore, & Jeoung, 2007; Pan & Ryan, 2009; Quan & Wang, 2004; Small, Darcy, & Packer, 2012; Veijola & Jokinen, 1994; Walls, Okumus, Wang, & Kwun, 2011a, b). The idea that the unique character of a destination can be imparted by sensory-based themed experiences appealing to visitors is couched in recent findings of research on consumption experience framed by contemporary approaches, such as the experience economy (Pine & Gilmore, 1998) and experiential marketing (Addis & Holbrook, 2001; Holbrook & Hirschman, 1982; Schmitt, 1999), which are especially relevant to tourism given its inherent experiential nature (Oh et al., 2007; Quan & Wang, 2004; Ryan, 1997; Williams, 2006).

Indeed, a wide range of academic areas has reflected on the contribution of the senses to human knowledge and sense-making of the world by providing information on the surrounding environment and mediating everyday experiences (Howes, 2005; Krishna, 2010; Rodaway, 1994). In this context, researchers and practitioners agree that contemporary destinations should attract by more than vision (Dann & Jacobsen, 2003; Daugstad, 2008; Gretzel & Fesenmaier, 2003; Kastenholz et al., 2012a; Pan & Ryan, 2009), by devising the right sensory stimuli in the process of creatively facilitating the emergence of rich tourist experiences, aiming to contribute to the competitiveness and sustainability of destinations (Mossberg, 2007; Tung & Ritchie, 2011). Accordingly, considering that the rural tourism supply is growing rapidly and that even on short holidays tourists seek multiple experiences, rural destinations should articulate their endeavors in facilitating diversified quality tourist experiences (Feifer, 1985; Lane, 2009). However, a lack of empirical research with a holistic approach to the so-called five external human senses - sight, hearing, smell, taste, and touch - with respect to

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<sup>7</sup> Further references to this article in this study will be as follows: Kastenholz et al., 2012a.

tourist experiences, particularly focusing on rural areas, is evinced by the literature (Agapito et al., 2013).

Despite Portugal frequently being associated with seaside tourism, especially the South, where the Algarve region accounts for the largest amount of tourists' overnight and lodging accommodation (Statistics Portugal, 2012a), the country is a destination fully of contrast, characterized by a diversity of culture, physical geography, and biology that can be managed in order to invigorate the tourism offerings, prolong the main product life cycle, and address efforts toward different segments of tourists (Kastenholz, Davis, & Paul, 1999). Specifically, Southwest Portugal is an eclectic area, where the west coast and the inland of the Algarve and Alentejo regions meet, offering diverse rural local resources with the potential to generate multi-sensory effects attracting tourists with diverse motivations. The natural values stand out; these are the reason underlying the creation of the Southwest Alentejo and Vicentina Coast Natural Park, extending approximately 100 km along the coast of four municipalities (Vila do Bispo, Aljezur, Odemira, and Sines). A multiplicity of natural resources with over 700 species of plants, many of which are native to Portugal, can be found in the surrounding area, which is also an important stopover for migrating birds. Moreover, dozens of species of mammals and aquatic fauna, some of which are protected species, coexist in the area. Geologically, a variety of landscapes can be found, converging in coastal and inland scenarios (Instituto de Conservação da Natureza, 2005), appealing to rural tourists.

By focusing on Southwest Portugal as a pragmatic case, the purpose of this study is to use a holistic approach to the five senses, meant to capture meaningful sensory-based themes adequate for segmenting tourists.

## **4.2. Research background**

### **4.2.1 Destination sensory experiences**

The tourism experience can be seen as a global consumption experience of a destination (Andersson, 2007; Crouch, Perdue, Timmermans, & Uysal, 2004; Lewis & Chambers, 2000; Morgan, Elbe, & de Esteban Curiel, 2009; Mossberg, 2007; Neuhofer, Buhalis, & Ladkin, 2012; Oh et al., 2007; Quan & Wang, 2004; Ritchie & Hudson,

2009). In this sense, destinations – the core of the tourism system (Fyall & Leask, 2007) – are a composite product, i.e. an amalgam of tourism products and services, comprising lodging, food, transportation, souvenirs, and leisure activities (Buhalis, 2000; Otto & Ritchie, 1996). Bearing this in mind, destinations are perceived as a whole by tourists, the perception of a destination being a combination of factors, comprising a “collection of experiences gained by the traveler” (Gunn, 1997, p. 32). While tourist encounters are personal to each visitor, tourism planners can facilitate the development of the right environment, enhancing the likelihood of positive and memorable tourist experiences emerging (Tung & Ritchie, 2011), benefiting and involving tourists, the tourism industry, and the local community (Manente & Minghetti, 2006). This idea assumes that in order for destination marketing and management strategies to be fully successful, creative opportunities should be sought to encourage the co-creation of positive, unique, and quality tourist experiences that can attract visitors efficiently (Binkhorst & Dekker, 2009; Jennings & Nickerson, 2006; Mossberg, 2007; Prahalad & Ramaswamy, 2004) and contribute to the competitiveness and sustainability of destinations (Ritchie & Crouch, 2000).

Against this background, the relevance of the experiential paradigm for conceptualizing, planning, and marketing the tourist experience is evinced by the current literature (Cutler & Carmichael, 2010; Ellis & Rossman, 2008; Gilmore & Pine, 2002; Mossberg, 2007; Oh et al., 2007; Ritchie & Hudson, 2009; Tung & Ritchie, 2011; Volo, 2009; Walls et al., 2011a; Williams, 2006). Experiential approaches outline the importance of hedonic consumption for individuals and, accordingly, stress that attention should be paid to the activity of devising the right multi-sensory environment, contributing to the value creation for both customers and companies (Addis & Holbrook, 2001; Gentile, Spiller, & Noci, 2007; Holbrook & Hirschman, 1982; Pine & Gilmore, 1998). As a result, sensory stimuli (visual, aural, olfactory, gustatory, and tactile) have been highlighted as a crucial tool for marketing unique and appealing holistic consumer experiences (Krishna, 2012; Schmitt, 1999; Schmitt & Simonson, 1997). In fact, sensations (the activation of sensory organs – eyes, ears, nose, skin, and taste receptors) act as the initiator of the individual’s perception of the surrounding world, a process through which sensory inputs are selected, organized, and interpreted, resulting in a “conscious sensory experience” (Goldstein, 2010, p. 8). Furthermore, empirical studies consolidate the importance of the sensory dimension of consumer

experiences when compared with other components (e.g. physical, intellectual, emotional, social) stressed as key in engaging and co-creating value with consumers (Brakus, Schmitt, & Zarantonello, 2009; Gentile et al., 2007).

Within this vein, frameworks aiming to create the desired tourist experiences focus on the external factors influencing tourists' perception, which can be partially staged by the destination, from a marketing management perspective. These instruments stress the importance of stimulating tourists' five human senses in order to achieve positive individual responses (Agapito et al., 2013; Ellis & Rossman, 2008; Mossberg, 2007; Oh et al., 2007; Walls et al., 2011a). On one hand, sensory stimuli integrate the environmental factors composing the setting in which the consumption of products (tangibles and intangibles) takes place (Bitner, 1992; Heide & Grønhaug, 2006). On the other hand, the resulting surrounding environment is a facilitator of human interactions between tourists and employees, other tourists, and the community (Bitner, 1992; Mossberg, 2007; Walls et al., 2011a, b). Considering the multi-phase nature of the tourist experience (before, during, and after the travel), experiences in loco could be enhanced by exploring the potential of information communication technologies (ICTs) at different times during the trip, meaning that the surroundings can be both physical and virtual (Gutenntag, 2010; Neuhofer et al., 2012; Stamboulis & Skayannis, 2003; Tussyadiah & Fesenmaier, 2009). Moreover, some authors suggest that sensory information can be explored in order to identify the core themes around which destinations' experiential offerings can be coordinated (Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009), aiming to generate tourists' positive emotions, place attachment, satisfaction, long-term memory, and destination loyalty (Agapito et al., 2013; Bitner, 1992; Kastenholz, Carneiro, & Marques, 2012<sup>8</sup>; Heide & Grønhaug, 2006; Pine & Gilmore, 1998; Walls et al., 2011b).

Apart from the external pull factors, which can be partially managed, Larsen (2007) stresses the importance of addressing the psychological aspects of tourist experiences, since the perceptual process through which individuals shape and add meaning to their experiences is summed up not only by the characteristics of the surrounding environment and the stimulus situations but also by inner psychological

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<sup>8</sup> Further references to this article in this study will be as follows: Kastenholz et al., 2012b.

processes. Thus, experiences being existential, embodied in people (Ooi, 2005; Pratt & Aspiunza, 2012), they are influenced by individuals' characteristics, such as personality, cultural background, knowledge, self-identity, emotional states, memory (Cutler & Carmichael, 2010), level of familiarity, expertise, involvement (Fluker & Turner, 2010), and physiological specificities (Derval, 2010; Krishna, 2010). These aspects, in addition to situational variables (Walls et al., 2011a), determine individuals' motivations, influencing the choice of activities in the destination and impacting on affective and behavioral responses (Cutler & Carmichael, 2019; Larsen, 2007). As a result, despite being exposed to the same stimuli, tourists attend to different elements, meaning that they experience destinations in a multitude of ways (Agapito et al., 2013; Cutler & Carmichael, 2010; Crouch, 2002; Ooi, 2005; Walls et al., 2011a). Furthermore, individuals' expressions of their own experiences are framed by a symbolic manifestation (Bruner, 1986, p. 6) deriving from the social meanings ascribed to personal experiences (Selstad, 2007). With this view, the role of tourism mediators is to compete for tourists' scarce attention and invoke a strong emotional experience rather than to create experiences (Davenport & Beck, 2001; Ooi, 2005). The challenge is thus to balance "the need for tourists to notice and interpret tourism products in desirable ways, while at the same time allowing them to feel engaged in making choices" (Ooi, 2005, p. 58). In this context, Ooi (2005) suggests that sculpting tourist experiences involves selecting and accentuating specific items for tourism consumption, with particular emphasis on sensory markers, offering a framework in which tourists can build their myriad of tourist experiences.

#### **4.2.2 Sensory theming tourist experiences in the countryside**

The existence of a theme is viewed as essential for planning and marketing consumer experiences coherently and as a facilitator of the individual involvement in experiential offerings, by connecting several services and products (Pine & Gilmore, 1998). The concept of themes can be described as the main idea to be learnt from a narrative that is being communicated and that can be used to promote products, services, and brands (Mossberg, 2007). The experiential paradigm suggests that the existence of a central theme allows consumers to organize their impressions, increasing the memory of events, whilst the lack of a theme can make it difficult to recall experiences (Ellis & Rossman, 2008; Mossberg, 2007; Oh et al., 2007; Pine & Gilmore,

1998). In a destination context, the arena in which the global consumption takes place is referred to as the experiencescape (Mossberg, 2007; O'Dell & Billing, 2005), the destination itself being the experience environment. Since stories and themes are seen as critical elements in understanding tourist experiences (Moscardo, 2010), the literature suggests that it is possible to associate several themes with a place without creating conflict (Gattrell & Collins-Kreiner, 2006; Ooi, 2005). In fact, several products can compete among themselves within the same destination, addressing different needs, since they coherently fit the destination's offering system (Manente & Minghetti, 2006). Indeed, some destinations "are attractive precisely because there are many things for tourists to do" (Ooi, 2005, p. 59), responding to increasingly more exigent tourists seeking new experiences and enjoying the movement across different experiences in a single journey (Feifer, 1985; Poon, 1993).

Therefore, several benefits arise as a result of using central themes in the marketing management of destination experiences. Firstly, themes contain useful information for the process of planning and marketing meaningful and memorable experiences (Moscardo, 2010; Mossberg, 2007; Pine & Gilmore, 1998). Indeed, the existence of themes coordinating specific activities contributes to tourists' feeling that they enjoyed authentic, meaningful, and personal-growth-related experiences: an idea linked to the concept of existential authenticity (Pratt & Aspiunza, 2012; Wang, 1999). Secondly, some themes may be better used to coordinate destination offerings attracting certain market segments, fitting the destination identity and local sustainable development, by encouraging the involvement of the community and focusing on unique local resources (Donilcar, 2004; Kastenholz et al., 2012a; Walker, 2008). The existence of central themes and stories supporting the marketing management of tourist experiences influences the places tourists visit and how they behave while at the destination (Moscardo, 2010). Accordingly, the activity of interpretation based on themes is a tool with the potential to draw the attention of tourists to specific areas or activities of local importance, considered as involving the optimal economic, social, and environmental benefits to the destination (Moscardo, 1996).

The advantages of exploring central themes in coordinating tourist experiences are especially relevant in the countryside, since rural areas embrace a myriad of undeveloped resources (e.g. vegetation soil, wildlife, water, or natural landscapes), generating an environment that contrasts urban areas (e.g. pollution, congestion) and is

valued for doing so (Kastenholz et al., 2012a; Lane, 1994b). Particularly, natural environments offer a rich and rewarding aesthetic tourist experience (Hepburn, 2004; Todd, 2009), encouraging a multi-sensory mode of appreciation of the surroundings (Carlson, 2004) and, consequently, an aesthetic engagement with nature (Berleant, 2004). In fact, rural destinations are extensively perceived by visitors, who mainly come from urban areas, as a symbol of pure nature in contrast to the utilitarian view of residents of rural areas (Figueiredo, 2009). Furthermore, rural destinations are commonly associated with cultural values, related to local traditions and gastronomy, and linked to agriculture and fishery activities (Roberts & Hall, 2001). These endogenous resources are attractors for visitors (Saxena, Clark, Oliver, & Ilbery, 2007), offering high potential to enhance diverse sensory tourist experiences (Gretzel & Fesenmaier, 2003; Kastenholz et al., 2012b; Pan & Ryan, 2009), pertaining to the rural idyll sought or the variety of outdoor activities available (Butler, Hall, & Jenkins, 1998; Page & Getz, 1997; Roberts & Hall, 2004).

Considering the environmental, social, cultural, and economic concerns associated with the countryside, in addition to the multiplicity of stakeholders interacting in rural destinations (Lane, 1994a), careful management of the demand seems to be adequate (Kastenholz, 2004) in order to optimize the impacts of tourism development and contribute to sustainable local tourism development (Lane, 1994b; Middleton & Hawkins, 1998). In this sense, a managerial approach to rural destination experiences should focus on carefully co-creating rich and positive tourist experiences, by seeking to harmonize local resources' preservation, residents' quality of life, tourists' quality of visit, and tourism providers' benefits (Jennings & Nickerson, 2006; Kastenholz et al., 2012a; Lane, 1994b; Manente & Minghetti, 2006). The efforts to generate synergies with different resources is thus seen as fundamental to the responsible marketing management of an integrated tourist experience in rural destinations (Cawley & Gillmor, 2008; Saxena et al., 2007), and consequently to the process of creatively theming rural tourist experiences and strengthening the destination identity (Bercial, 2008; Haven-Tang & Jones, 2010; Kastenholz et al., 2012b). Against this academic background, rural destinations are called to analyze which sensory-based themes and related tourism activities fit the destination best (Gretzel & Fesenmaier, 2010; Moscardo, 2010).

In order to understand tourists' perception of their sensory experiences, it seems to be important to consider their motivations for visiting the countryside. One of the main motivations for individuals to travel to rural areas is contact with a traditional way of life and with nature (Hernández, Muñoz, & Santos, 2007). Indeed, apart from culturally related values, the romantic idea of being connected with nature is entwined with the practice of tourism in rural areas. In their research on the white water rafting experience, Arnould and Price (1993) reveal the idea of communion with nature as a key dimension of extraordinary experiences. However, whilst approximately until the 1970s the tourist activities in the countryside were more closely related to the rural character of the place and to individuals' preference for more passive participation, recently the countryside has also witnessed an increased demand for more active, engaging, and, sometimes, competitive recreational activities. The latter assumes that, in some cases, the countryside may be merely the location for outdoor activities, such as survival and geo-caching games with technological devices, jet boating, surfing, or adventure tourism, for which the rural character of the setting may be not central to the visit (Butler et al., 1998; Lane, 1994b; Roberts & Hall, 2001). From this viewpoint, the importance of the countryside itself is currently viewed as relative to the purpose of the tourists' visit and satisfaction (Roberts & Hall, 2004). In fact, rural areas have increasingly become spaces for the consumption of leisure and tourism activities, as opposed to spaces for production, as agriculture is losing its dominant position and social structures are changing dynamically (Cavaco, 1995; Roberts & Hall, 2001). Although the rural character of the destination is claimed to be vital to the process of planning and marketing an integrated rural tourism experience (Kastenholz et al., 2012b; Lane, 1994b; Saxena et al., 2007), each destination should analyze its specificities and the existing opportunities to find a balance between the development and the conservationist perspectives, by achieving industry, community, and tourist satisfaction (Lane, 1994b).

Given the diversity of tourists seeking rural destinations (Cai & Li, 2009; Devesa, Laguna, & Palacios, 2010; Frochot, 2005; Kastenholz et al., 1999; Molera & Albaladejo, 2007; Park & Yoon, 2009), niche markets might possibly be identified in order to gain a competitive advantage and efficiently allocate marketing efforts towards strategic profiles that afford greater attraction to the destination (Clemenson & Lane, 1997; Lane, 2009). Also, neighboring local regions may use their limited budgets to

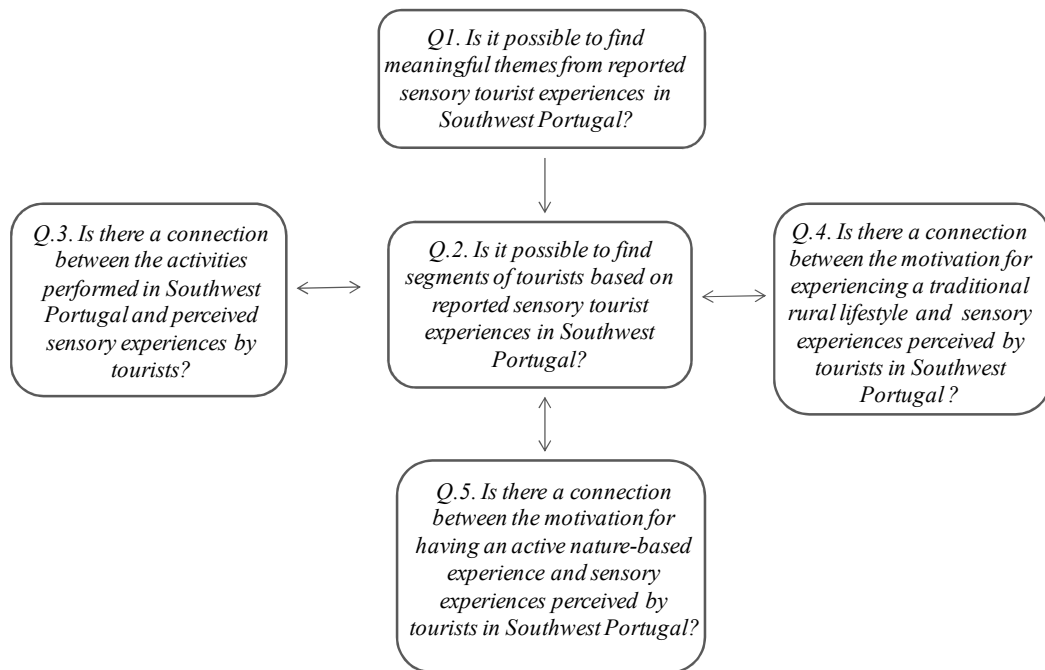
explore niche markets cooperatively and sustainably (Morgan, 2010; Pan & Ryan, 2009). Nevertheless, Roberts and Hall (2004) stress that since consumers are increasingly interested in participating in a wide range of activities, the identification of a product's core value might be somewhat difficult, and for that reason this should be a cautious process. Considering that some researchers advise that demographic information is an insufficient means of market division that does not underlie the motivations for travel (Plog, 1994; Witt & Moutinho, 1989), other bases ascribed to the psychological nature have been proved useful in the process of segmenting rural tourists for marketing management purposes (Kastenholz et al., 1999; Park & Yoon, 2009). Reintroducing to the discussion the central importance of the sensory dimension of tourist experiences (section 2) and the potential sensory appeal of rural destinations (section 3), the idea of analyzing tourists' reported sensory-based experiences seems to be adequate not only for finding central sensory-based themes in order to market positive rural tourist experiences creatively and cooperatively, but also for identifying different visitor segments (Gretzel & Fesenmaier, 2003, 2010).

Indeed, taking into account the inner psychological characteristics of perception, individuals' perceptions of destination experiences implicitly incorporate personal interests, which play a significant role in the activities performed, during which sensory inputs are selectively attended to (Cutler & Carmichael, 2019; Goldstein, 2010; Larsen, 2007; Ooi, 2005). Being the core of the tourism experience (Cutler & Carmichael, 2010; Larsen, 2007), perception also determines tourists' experience evaluation, satisfaction, and memory of events (Ryan, 2003; Selstad, 2007). The theoretical arguments sustaining the relevance of using the individuals' perception of sensory experiences to profile tourists is reinforced by the empirical research conducted by Gretzel and Fesenmaier (2010). The researchers performed a case study on a rural destination in Northern Indiana, in the Midwest United States, which reveals that multi-sensory information (taste, color, scent, and sound) extracted from perceived sensory tourist experiences is suitable for segmenting sensory experiences. In order to perform the empirical study, Gretzel and Fesenmaier (2010) developed the Sensory Experience Elicitation Protocol to elicitate the sensory association networks present in the mind of consumers. The authors show that although demographic variables do not significantly differentiate sensory impressions, activities performed in the destination present some connection to the reported sensory experiences. In an earlier work, Gretzel and

Fesenmaier (2003) find that it is possible to find bundles from sensory impressions (color, scent, and sound) of desired tourist experiences that are useful for designing tourist experiences and creating effective marketing tools to promote them, maximizing the benefits of ICTs. By analyzing journalists' travelogues, Pan and Ryan (2009) also identify shifts of sensory impressions regarding destination experiences, which were mainly induced by spatial changes (e.g. rural versus urban). The research demonstrates the potential for wittingly managing the sensory appeals of destination experiences by outlining specific activities and designing sensory itineraries addressing different tourists' profiles, characterized by specific motivations. The findings of these studies offer important practical managerial insights, suggesting that the effort to address sensory-themed experiences to reference tourists' profiles matched to destinations' identity encourages the integration of the local community and the optimal use of core resources in the planning of the overall rural destination experience, benefiting all the stakeholders involved (Donilcar, 2004; Kastholz et al., 2012b; Pan & Ryan, 2009).

#### **4.2.3 Study objectives and research questions**

The main purpose of this study is to explore a holistic approach to the five senses, meant to capture meaningful sensory-based themes adequate for segmenting tourists in Southwest Portugal. Four specific objectives have been set in line with the aforementioned purpose. The first is to identify meaningful sensory-based themes through the analysis of sensory tourist experiences reported by tourists in Southwest Portugal. The second is to segment tourists using the sensory-based themes extracted from the reported sensory tourist experiences in Southwest Portugal. The third is to analyze the connection between corresponding sensory-based themes/segments and performed tourists' activities. The fourth is to analyze the connection between corresponding sensory-based themes/segments and tourists' travel motives for living a rural lifestyle experience and having an active nature-based experience. The resulting core five research questions are highlighted in **Figure 4.1**.



**Figure 4.1 - Research questions**

## **4.4 Methodology**

### **4.4.1 Instruments**

This study uses a survey approach based on a self-administered questionnaire. Four groups of questions were used specifically in this study with the purpose of capturing aspects such as the main activities performed in the destination and general information, tourists' sensory impressions, motivations, and sociodemographic information. Five open-ended questions based on direct elicitation were used in order to capture sensory impressions (Gretzel & Fesenmaier, 2010) with respect to the tourists' overall experience in Southwest Portugal. Tourists' motivations for visiting the destination were assessed using a five-point Likert scale varying from 1 (strongly disagree) to 5 (strongly agree). Additionally, the participants were required to indicate the main activity performed in the destination and provide sociodemographic and general information regarding their holidays in Southwest Portugal. The questionnaire was prepared in four languages: English, Portuguese, German, and Spanish. The survey was submitted to a pre-test with 12 visitors and three academic experts in the field, resulting in minor adjustments regarding vocabulary and design.

#### **4.4.2 Data collection**

The target population included tourists visiting Southwest Portugal who spent at least one night in a rural lodging in the area. In Portugal, tourism in rural areas (TER-Turismo no Espaço Rural) is defined as a paid set of activities and lodging services provided in rural areas, in establishments with a family character. The aim should be to offer visitors a complete and diversified tourism product in rural areas, with a view to preserving, restoring, and valuing the region's architectonic, historical, natural, and landscape heritage (Dec.-Lei nº 54/2002). According to recent Portuguese legislation (Dec.-Lei nº 39/2008), tourism in rural areas can be classified into the following forms: countryside cottages ("casas de campo"), agro-tourism ("agro-turismo"), and rural hotels ("hotéis rurais"). The collection of data was conducted from 15 July to 15 December, 2011, in Odemira, Aljezur, and Vila do Bispo, since these municipalities are simultaneously the most representative with respect to the portion of the area included in the Southwest Alentejo and Vicentina Coast Natural Park (Hidroprojecto, 2008), regarding the existing agricultural area, and presenting the lowest population densities of Southwest Portugal (< 30 persons per square kilometer) (Statistics Portugal, 2012b, c). For this, 35 rural places of accommodation were considered to meet the conditions for participating in the study. Of these, 11 (30%) voluntarily agreed to act as venues in which to administer the questionnaire. A sample of 195 tourists was determined using the most conservative estimate for a single proportion (0.5), a confidence level of 95%, and a margin of error of 7%. Tourists older than 17 years were invited to participate in the study. Moreover, only one person from each family completed the questionnaire in order to avoid the risk of quasi doubling a specific answer. The owners and/or managers of the accommodation were informed about the aims of the survey and received instructions on its application. From the 204 collected surveys, a total of 181 valid questionnaires were obtained, corresponding to 92.8% of the selected sample.

#### **4.4.3 Data analysis methods**

The data analysis was organized in three phases. Firstly, a content analysis of the open-ended questions was conducted using the software IBM – SPSS Text Analytics for Surveys (STAS) 4.0.1 in order to extract meaningful sensory-based categories from the data. IBM Text Analytics for Surveys (STAS) is text-coding software adequate to assist

researchers in the analysis of survey responses to open-ended questions. This application allows the extraction of key concepts and the categorization of responses based on a combination of linguistic-based text mining with manual techniques (IBM, 2011). Before importing the data to STAS, the responses that were presented by non-English-speaking respondents were translated into English with the assistance of English, Spanish, and German native-speaking teachers and Portuguese native-speaking researchers (the authors themselves). Subsequently, a pre-reading of all the open-ended responses in English was conducted by two researchers in order to perform grammar and spelling uniformization, which was further assisted by the software. In order to extract sensory categories, the automatic option for a word count of STAS was used, followed by a manual process of aggregating words or expressions that were related to a specific meaningful sensory impression, having as a reference the external five human senses. The latter process was first conducted by the main researcher and further verified by a second researcher, with reference to the previous literature and empirical studies on senses in tourism (Govers, Go, & Kumar, 2007; Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009) and research using the STAS software (Guerreiro, 2012; Sahin & Baloglu, 2011). The latter studies focus on destination image studies using mixed methods and illustrate some of the potential of the software. In the present study, after categorizing the data, STAS's option to export the codified categories as categorical variables was used. This new database was further imported into the software IBM SPSS, which allows the performance of multivariate statistical techniques, such as multiple correspondence analysis (MCA). In this phase of the study, descriptive statistics, such as relative frequencies, were also used in a preliminary analysis of the data.

In the second phase of the study, the sensory coded categories (impressions) resulting from the content analysis were imported to SPSS (17.0) as categorical variables with two categories each (binominal variable): the lack of reference to a sensory impression was recoded as 1 (absence) and the spontaneous reference to a sensory impression was recoded as 2 (presence). The sensory impressions were organized in columns and the respondents in rows. With the purpose of answering *research question 1*, MCA was employed in order to capture meaningful and holistic sensory-based themes by analyzing the associations between sensory impressions reported by tourists regarding their overall sensory experience in Southwest Portugal.

This interdependence and exploratory technique was used since it is considered appropriate for examining multiple qualitative variables quantitatively by capturing the existing patterns between category points (Hair, Black, Babin, & Anderson, 2010) and further allowing their graphical representation through perceptual maps (Greenacre, 2007). In the joint space, the represented category points closed together suggest a strong association between indicators (patterns/themes) and vice versa (dissociation). Moreover, an examination of the angles between categories' points (in this particular case, the interest particularly relies on the spontaneous sensory-based reference, coded as "2") was found useful for supporting the correct interpretation of the distances represented in the graphics, based on the notion that an acute angle from the origin between two category levels pertaining to different categorical variables (sensory impressions) indicates a positive correlation and vice versa (Greenacre, 2007; Pan & Ryan, 2009). Cross-tabulation tables were also compiled in order to support the interpretation of the perceptual map resulting from the MCA (Carvalho, 2008; Pan & Ryan, 2009; Valle, Mendes, & Guerreiro, 2012). The latter process is explained below.

Thirdly, a k-mean cluster analysis was used as a complementary analysis to the MCA with the purpose of operationalizing the segmentation of tourists based on themes deriving from individuals' perception of sensory tourist experiences resulting from the MCA (Carvalho, 2008, Ribeiro, Valle, & Silva, 2013). This procedure allowed both the reinforcement of the examination of *research question 1* and the assessment of *research question 2*. In fact, MCA as a scaling technique is usually known as homogeneity analysis since the proximity of the categories of different variables suggest the presence of individuals with similar profiles, resulting in different nuclei corresponding to different groups of individuals (Carvalho, 2008; Greenacre, 2007). Ward's clustering method and the squared Euclidean distance as a measure of dissimilarity were used in the cluster analysis. After obtaining the variable segment membership (derived from the dimensions scores identified in the MCA and indicating the cluster in which each respondent was classified), this variable was included as a supplementary variable on the perceptual map provided by the MCA and further crossed (cross-tabulation tables) with the 40 sensory impressions previously used in the MCA. This procedure allowed internal validation of the segments. External validation of the existence of different tourists' profiles was also provided by crossing the variable segment membership with other variables included in the questionnaire, such as performed activities and tourists'

motivations (Valle, Mendes, & Guerreiro, 2012). This process enabled the evaluation of *research questions 3, 4, and 5*. The chi-square test for independence was used in the process of crossing the referred variables.

## 4.5 Results

### 4.5.1 Sample profile

**Table 4.1** provides a summary of the main socio-demographic characteristics of the questionnaire respondents. As can be observed, the participants are predominantly female (56.9%), married or living as a couple (65.2%), and employed (75.7%) and have a university degree (85.6%). A large proportion is from Portugal (58%), followed by Spain (11.6%) and the United Kingdom (8.8%), and aged between 31 and 40 years old (43.1%). The socio-demographic profile is in line with previous studies conducted in Portugal (Almeida, Correia, & Pimpão, 2013; Kastenholz et al., 1999; Loureiro & Kastenholz, 2010), as the typical visitor to rural areas is relatively older, well educated, married, and employed.

**Table 4.1**  
Descriptive statistics of the sample

<b>Variables</b>	<b>Distribution of answers</b>
Gender	Male: 43.1%; female: 56.9%
Age	< 21: 2.8%; 21-30: 17.7%; 31-40: 43.1%; 41-50: 22.7%; 51-60: 9.4%; > 60: 4.4%; minimum: 18; maximum:74; mean: 39.08; standard deviation: 10.646
Country of origin	Portugal: 58%; Spain: 11.6%; U.K: 8.8%; Netherlands: 5.5%; Germany: 4.4%; Other:11.6%
Educational qualification	Secondary: 9.4%; university degree: 85.6%; other: 5%
Marital Status	Single: 31.5%; married/living as a couple: 65.2%; divorced: 3.3%
Occupation	Employed: 75.7%; self-employed: 14.9%; student: 4.4%; Retired: 3.9%; domestic: 0.6%; unemployed: 0.6%

For most tourists, the holidays under study represented their first time in Southwest Portugal (56.9%), while 24.9% of the participants had already visited the area three or four times. With respect to the situational variables, while most visitors

were travelling with their partner (38.1%) or their family (38.1%), others were on holiday with their friends (14.9%) or work company (8.3%) or were on vacation alone (0.6%). The mean for the length of stay was 5 days (minimum: 1; maximum: 15) with a standard deviation of 2.607. Regarding their previous rural tourist experiences, 80.1% of the respondents claimed to have spent holidays in rural areas before.

#### **4.5.2 The content analysis**

The results of the content analysis of the open-ended questions, through which tourists were asked to report their sensory experience in the rural area under study, show that all the external five human senses account for a high number of references, with visual descriptions attracting the highest number of references and touch gathering the lowest. Of the total collected sensory-based words or expressions (2128), the sense of sight collected the most references (26%), followed by hearing (23%), taste (19%), smell (17%), and touch (15%). Using the five senses as a reference, the reported sensory-based words or expressions were amalgamated into meaningful sensory categories (see section 4.3). The sensory categories obtaining at least 10% of respondents' references were retained for further analysis (Govers et al., 2007), as presented in **Table 4.2**. As can be observed, the categories rated with the highest percentage of responses (by each sense) are: “sight – landscape” (47.0%), “hearing – birdsong” (59.1%), “smell – sea salty air” (37.6%), and “touch – heat” (34.3%). From this point, the 40 sensory categories retained will be referred to as sensory impressions.

**Table 4.2**  
Sensory impressions

<b>Categories</b>	<b>Frequency</b>	<b>Categories</b>	<b>Frequency</b>
<i>Sight</i>		<i>Smell</i>	
Landscape	47.0%	Sea salty air	37.6%
Natural light	26.0%	Plants	22.1%
Diversity of colors	21.0%	Trees	18.8%
Maritime scenario	14.9%	Flowers	14.4%
Green	14.4%	Fresh air	13.3%
Beaches	13.3%	Local food	10.5%
Blue	13.3%	Soil	9.9%
Sky	11.0%	Countryside	9.9%
Animals	9.9%		
		<i>Taste</i>	59.1%
<i>Hearing</i>		Local food	34.3%
Birdsong	59.1%	Seafood	18.2%
Wind	26.5%	Sweet	17.1%
Sea	24.9%	Fruit	16.6%
Silence	23.8%	Aromatic plants	14.9%
Crickets	20.4%	Cheese	13.3%
Farm animals	19.3%	Bread	12.2%
Waves	16.0%	Salty	11.0%
Animals	15.5%	Local beverage	
Insects	10.5%		
<i>Touch</i>			
Heat	34.3%		
Coolness	25.4%		
Sand	23.2%		
Sea	18.8%		
Wind	9.9%		

### 4.5.3 The MCA analysis

Following the application of MCA to the 40 categorized variables and the process of optimal quantification, a two-dimensional solution was revealed, according to the criteria based on the notion that when the two first dimensions are predominant regarding the variance explained, and a third dimension seems not to add more relevant information, two dimensions are enough to proceed with the analysis (Carvalho, 2008; Gifi, 1996). In the proposed model (**Table 4.3**), the two dimensions explain 14.9% of the variance in the data. Some authors alert us to the fact that low inertia (variance) can be evidenced, even in the two first dimensions, and that this type of result does not signify a lack of quality of the analysis (Benzécri, 1982). Accordingly, low inertia may

result from the high number of variables used in the study (40 in this case), or it could be related to the fact that some individuals’ profiles may be somewhat similar to the mean, but not less interpretable for that reason (Benzécri, 1982; Carvalho, 2008). Indeed, it is important to take into account other indicators pertaining to the internal composite reliability, such as Cronbach’s alpha, which in the first dimension accounts for 0.741 and in the second dimension loads 0.587, exceeding the recommended threshold of 0.5.

**Table 4.3**  
MCA model summary

Dimension	Cronbach’s alpha	Eigenvalue	Inertia	Proportion explained
1	0.741	3.604	0.090	0.6040
2	0.587	2.338	0.058	0.3893
Total	-	5.942	0.149	1
Mean	0.680	2.971	0.74	-

The discrimination measures table (**Table 4.4**) shows which variables best discriminate each retained dimension. The more heavily loaded points are of central importance since they assist in adding meaning to the dimensions (axes) that support the representation of categories of variables and objects (individuals) in space, by reducing the original data for statistical analysis purposes (Carvalho, 2008; Greenacre, 2007). The discrimination ratings that are higher than the mean, best discriminating each dimension, are highlighted in bold in **Table 4.4**. Sensory impressions such as “sight – blue,” “sight – beaches,” “sight – sky,” “smell – countryside,” “smell – plants,” “taste – local food,” “touch – heat,” and “touch – sea” discriminate Dimension 1, which is tentatively named “generic beach-related *versus* rural experience.” Thus, impressions pertaining to the sight, taste, and smell senses are prominent in this dimension. In turn, “sight – diversity of colors,” “sight – green,” “sight – landscape,” “hearing – insects,” “hearing – crickets,” “hearing – wind,” “hearing – sea,” and “hearing – silence” are examples of sensory impressions that best contribute to discriminating Dimension 2. Clearly, hearing is the predominant sense, suggesting a “balanced nature-based experience.” Although some variables show low discriminatory power (e.g. “smell – soil”) and/or present the same loading in both dimensions (e.g. “smell – local food”), they were retained for a further deeper analysis.

**Table 4.4**  
Discrimination measures

Variables	Dimensions		Mean	Variables	Dimensions		Mean
	1	2			1	2	
<i>Sight</i>				<i>Taste</i>			
Blue	<b>.225</b>	.033	.129	Seafood	<b>.052</b>	.007	.030
Natural light	<b>.041</b>	.035	.038	Salty	.077	.078	.077
Diversity of colors	.006	<b>.047</b>	.027	Bread	.027	<b>.104</b>	.065
Green	.005	<b>.180</b>	.092	Fruit	<b>.237</b>	.007	.122
Landscape	.044	<b>.155</b>	.100	Cheese	<b>.144</b>	.085	.115
Beaches	<b>.143</b>	.000	.071	Sweet	<b>.144</b>	.010	.077
Maritime scenario	<b>.074</b>	.016	.045	Local food	<b>.114</b>	.000	.057
Sky	<b>.273</b>	.039	.156	Aromatic plants	<b>.277</b>	.012	.144
Animals	<b>.119</b>	.049	.084	Local beverage	<b>.063</b>	.008	.036
<i>Hearing</i>				<i>Touch</i>			
Farm animals	.035	<b>.089</b>	.089	Wind	.017	<b>.140</b>	.078
Insects	.001	<b>.096</b>	.096	Heat	<b>.218</b>	.000	.109
Wind	.110	<b>.208</b>	.208	Sand	<b>.143</b>	.019	.081
Crickets	.045	<b>.097</b>	.097	Coolness	.099	<b>.166</b>	.132
Birdsong	<b>.009</b>	.000	.000	Sea	<b>.262</b>	.152	.207
Sea	.049	<b>.146</b>	.146				
Animals	.000	<b>.057</b>	.057				
Waves	<b>.127</b>	.003	.003				
Silence	.002	<b>.147</b>	.147				
<i>Smell</i>				<i>Active Total</i>			
Local food	.001	.001	.001		3.604	2.338	2.971
Soil	<b>.012</b>	.001	.007	<i>% of Variance</i>			
Fresh Air	<b>.023</b>	.000	.012		9.010	5.844	7.427
Flowers	<b>.038</b>	.012	.025				
Countryside	<b>.032</b>	.010	.021				
Trees	<b>.019</b>	.015	.017				
Plants	<b>.156</b>	.006	.081				
Salty Air	<b>.143</b>	.107	.125				

While the discrimination measures table shows which variables best discriminate each dimension, these indicators do not illustrate how the corresponding categories of sensory impressions (absence/presence) are distributed along the dimensions. These relationships are revealed by the joint category quantification plot in which the variables are depicted. Since the focus of the study is the associations between the sensory impressions that were effectively reported by respondents (presence), only these point categories are illustrated in **Figure 4.2**, simplifying the graphic and facilitating its interpretation.

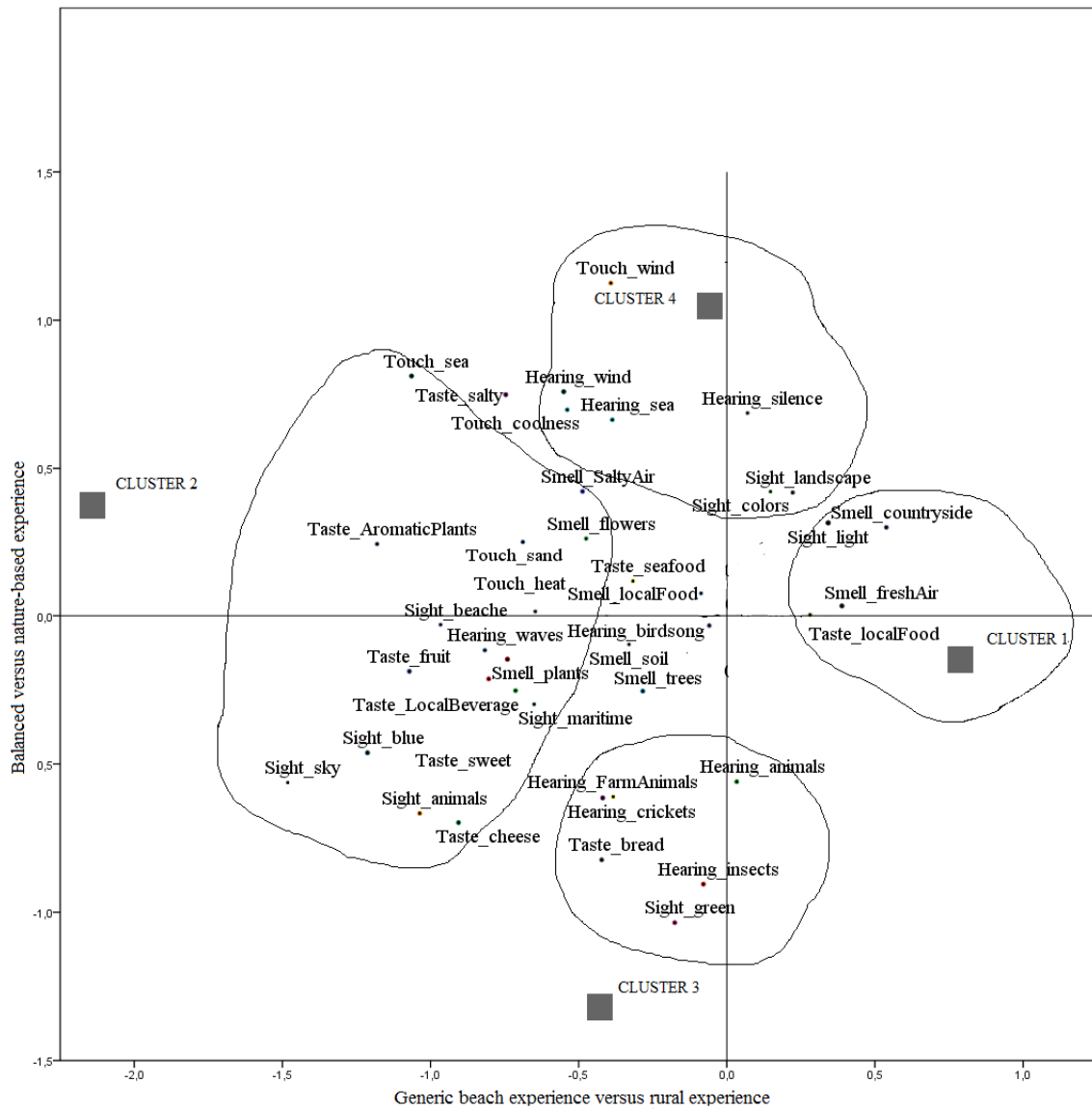


Figure 4.2 - Joint category quantification

As observed in **Figure 4.2**, the perceptual map suggests the existence of four meaningful sensory-based themes, which are composed of sensory impressions represented closely together in the graphic, forming acute angles. The proposed bundles are manually circled on the map. Two groups of sensory impressions are displayed far apart along the horizontal axis, suggesting the existence of two distinguished groups related to this dimension. The theme on the left is tentatively named “generic beach-based experience,” since it includes sensory impressions related to beach holidays but also shows clearly some general contact with the surrounding countryside, since the respondents make reference, for example, to the smell of plants and flowers, the taste of local beverages, cheese, sweets, and aromatic plants, as well as the sight of animals. The

theme portrayed on the right side of the perceptual map is termed “rural experience,” comprising references to the taste of local food, the smell of fresh air, and the light of the area. The coexistence of two groups of sensory impressions is also spread along the vertical axis. Accordingly, at the top of the graphic is evidenced a theme related to a “balance-based experience,” including sensory impressions such as the sensation of wind (touch) and the sound of silence, wind, and sea. At the bottom of the plot is displayed a theme entitled “nature-based experience,” since it embraces references to green colors, the sound of farm animals and crickets, and the taste of bread.

**Table 4.5**  
Sensory impressions included in sensory-based themes

Senses	Sensory-based themes suggest by MCA			
	Rural experience	Generic beach-based experience	Nature-based experience	Balanced experience
Sight	Natural light	Animals Beach Blue Maritime scenario Sky	Green	Diversity of colors Landscape
Hearing		Waves	Animals Crickets Farm Animals Insects	Sea Silence Wind
Smell	Countryside Fresh air	Flowers Plants Salty air		
Taste	Local food	Aromatic plants Cheese Fruit Local Beverage Sweet	Bread	
Touch		Heat Sand Sea		Coolness Wind

As expected, the sensory impressions that weakly contribute to discriminating the sensory dimensions (**Table 4.4**) are portrayed in the perceptual map near to the origin, not clearly integrating one of the identified themes. This is the reason why the researchers decided not to include five variables in the circled themes (“hearing – birdsong,” “smell – local food,” “smell – soil,” “smell – trees,” and “taste – seafood”). Additionally, the variable “taste – salty” is not incorporated into a theme, since it does

not contribute to the discrimination of a particular dimension (Dimension 1: 0.077; Dimension 2: 0.078) and is not clearly related to a specific theme on the perceptual map. Bearing in mind research question 1, these results suggest the existence of four meaningful holistic sensory-based themes based on tourists’ perception of their sensory experience in Southwest Portugal and also indicate that there is no evidence of a dominant sense. The suggested sensory-based themes and the corresponding sensory impressions are presented in **Table 4.5**.

#### 4.5.4 The cluster analysis

Using the individual scores in the two dimensions produced by MCA as input variables, a k-mean cluster analysis was performed in order to validate the themes suggested by MCA and to operationalize the segmentation of tourists (see section 4.3). A four-cluster solution was tested since the MCA suggests the existence of four sensory-based themes resulting from the tourists’ reports (Carvalho, 2008). The centroids (centers) for each cluster (segment) and the number of tourists integrated into each segment are presented in **Table 4.6**.

**Table 4.6**  
Final segment centers and number of tourists in each segment

Dimensions from MCA	Segments			
	Segment 1	Segment 2	Segment 3	Segment 4
Dimension 1	0.76	-2.14	-0.44	-.05
Dimension 2	-0.13	0.38	-1.33	1.05
Number of tourists	73 (40.3%)	17 (9.4%)	39 (21.6%)	52 (28.7%)

The results show that the four-segment solution seems to be adequate, since the centroids of the segments are significantly different regarding the variables resulting from the MCA used for segmentation (ANOVA tests:  $p\text{-value} = 0.000$ ). **Table 4.6** also depicts the number of tourists enclosed in each segment. As is evident, *segment 1* is the largest one (40.3% of respondents), followed by *segment 4* (28.7%) and *segment 3* (21.6%), with *segment 2* being the smallest (9.4%). Additionally, the variable *segment membership* was displayed in the joint category quantification plot as a supplementary variable (**Figure 2**). As can be observed, each of the four clusters’ points (C1, C2, C3,

and C4) is portrayed closed to one of the four sensory-based themes identified by the MCA (dark squares).

#### **4.5.5 The profile of tourist segments**

In order to determine whether the segments are significantly different as regards the sensory impressions used in the MCA and to provide internal validity to the four-segment solution, two procedures were used. All forty sensory impressions were crossed with the four segments (cross-tabulation tables). However, as expected, a significant dependence relationship (chi-square tests of independence:  $p\text{-value} = 0.000$ ) was established between the *segment membership* and the sensory impressions used in the MCA. The exception is the five sensory impressions that previously were omitted from the themes due to low discriminatory power (see section 5.3). For these five intersections, the  $p\text{-value}$  of the chi-square test was higher than 0.05. Also, the four segments seem not to be differentiated regarding the sensory impressions “smell – countryside” (chi-square = 1.934,  $p\text{-value} = 0.586$ ) and “hearing – animals” (chi-square = 6.864,  $p\text{-value}: 0.076$ ). Thus, of the forty variables originally used in the MCA, thirty-two sensory impressions clearly both differentiate sensory-based themes perceived by tourists in Southwest Portugal and profile corresponding tourist segments. These results allow us to reinforce the answer to *research question 1* and to validate the existence of different segments of tourists based on their sensory experience in Southwest Portugal (*research question 2*).

In the second phase, the segments were analysed with the purpose of verifying whether they differ according to the activities performed in the destination and tourists’ motivations, a process aiming to provide external validation to the segments and evaluate research questions 3, 4, and 5. **Table 4.7** shows the intersection (cross-tabulation table) between the activities performed in the destination and the variables’ *segment membership*. Since more than 20% of the cells have expected values lower than 5, the chi-square test for independence cannot be used. Nevertheless, as observed in **Table 4.7**, for each activity, the percentages of respondents who indicated it as the main activity performed in the destination are higher within a specific segment, and, accordingly, in a specific sensory-based theme. The table includes the activities referred to by at least 5% of the respondents. An analysis by activity (rows) shows that

individuals mainly participating in farm-related activities (66.7%) and hiking/trekking (36.5%) are integrated into the segment related to the sensory-based theme “rural experience.” The segment associated with a “generic beach-related experience” comprises the respondents who mainly performed beach-related activities (27%). Hiking and trekking (20.6%) are activities performed mostly by individuals included in the segment related to a “nature-based experience.” The segment of tourists perceiving their sensory experience as a “balanced experience” consists mainly of surfers (50%) and hikers/trekkers (36.5%). Worth noting is also the fact that hiking and trekking are the activities most commonly performed by tourists, showing high frequencies in all the segments, except in the group corresponding to the “generic beach-related experience”. With respect to *research question 3*, although these results cannot be generalized, some clues are presented that are in line with the idea that the outdoor activities performed in Southwest Portugal are connected with sensory tourist experiences.

**Table 4.7**

Frequency distribution of activities by sensory-based themes/segments

Activities	Sensory-based themes/segments				Total
	Rural experience (Segment 1)	Generic beach-related experience (Segment 2)	Nature-based experience (Segment 3)	Balanced experience (Segment 4)	
Hiking/Trekking	23 (36.5%)	4 (6.3%)	13 (20.6%)	23 (36.5%)	63 (100%)
Beach-related activities	13 (35.1%)	10 (27.0%)	7 (18.9%)	7 (18.9%)	37 (100%)
Surfing	9 (30.0%)	1 (3.3%)	5 (16.7%)	15 (50%)	30 (100%)
Farm-related activities	8 (66.7%)	0 (0.0%)	4 (33.3%)	0 (0.0%)	12 (100%)
Other	20 (51.3%)	2 (5.2%)	10 (25.6%)	7 (11.2%)	39 (100%)

With respect to tourists’ motivation for having a rural lifestyle experience, **Table 4.8** reveals the differences among segments (chi-square test for independence = 13.830; p-value = 0.032), answering *research question 4* positively. To follow the assumptions necessary to perform the chi-square test for independence, it was considered necessary to group some response categories of the 5-point Likert scales applied in the questionnaires, since they achieved a low frequency in some of the response categories. As can be observed, the desire to experience a rural traditional way of life during vacations is specifically evidenced in segments 1 and 3, which correspond to different

sensory-based themes, such as “rural experience” (strongly agree = 13.7%; agree + strongly agree = 65.8%) and “nature-based experience” (strongly agree = 10.3%; agree + strongly agree = 71.8%), respectively. Furthermore, **Table 4.8** shows no difference among segments with respect to tourists’ holiday motive to have an active nature-based experience (chi-square test for independence = 1.814; p-value = 0.936). Bearing in mind *research question 5*, the results indicate the inexistence of a connection between this motivation and the tourists’ sensory experience in Southwest Portugal.

**Table 4.8**

Frequency distribution between tourists’ level of agreement with motivations and sensory-based experiences/segments

Motivations	Sensory-based themes/segments				
	Rural experience (Segment 1)	Generic beach experience (Segment 2)	Nature-based experience (Segment 3)	Balanced experience (Segment 4)	Total
Rural lifestyle experience					
Disagree/Undecided	25 (34.2%)	8 (47.1%)	11 (28.2%)	23 (44.2%)	67 (37.0%)
Agree	38 (52.1%)	3 (17.6%)	24 (61.5%)	19 (36.5%)	84 (46.4%)
Strongly Agree	10 (13.7%)	6 (35.3%)	4 (10.3%)	10 (19.2%)	30 (16.6%)
Total	73 (100%)	17 (100%)	39 (100%)	52 (100%)	181 (100%)
	Chi-square = 13.830; p-value = 0.032 (< 0.05)				
Active nature-based experience					
Disagree/Undecided	30 (41.1%)	6 (35.3%)	16 (41.0%)	23 (44.2%)	75 (41.4%)
Agree	28 (38.4%)	6 (35.3%)	17 (43.6%)	19 (36.5%)	70 (38.7%)
Strongly Agree	15 (20.5%)	5 (29.4%)	6 (15.4%)	10 (19.2%)	36 (19.9%)
Total	73 (100%)	17 (100%)	39 (100%)	52 (100%)	181 (100%)
	Chi-square = 1.814; p-value = 0.936 (> 0.05)				

#### 4.6 Discussion and conclusion

This study suggests that meaningful themes can emerge from an analysis of the sensory impressions of global tourists’ experiences in rural areas, a finding that is consistent with previous studies (Gretzel & Fesenmaier, 2003, 2010). In particular, after performing an MCA, four sensory-based themes were identified with respect to tourist experiences in Southwest Portugal, tentatively named: “rural experience,” “generic beach-related experience,” “nature-based experience,” and “balanced experience.” An interesting result to outline is the fact that all the sensory-based themes embrace references pertaining to at least three external human senses. Indeed, although each

central theme is more related to a specific sense, there is no dominance of one sense. This conclusion is in line with the literature evincing the multi-sensory nature of tourist experiences, particularly in rural areas (Kastenholz et al., 2012a; Pan & Ryan, 2009). Since these sensory-based themes were captured from tourists' perspective, a cluster analysis was considered adequate for segmenting tourists based on the collected sensory information. The cluster analysis followed by the intersection of each segment with tourists' motivations and performed activities allowed the assessment and validation of the correspondence of each sensory-based theme to a segment of tourists with a different profile. The following lines will discuss the main results for each segment.

The segment reporting a “rural experience” focuses on the light of the destination, the scent of fresh air, and the taste of the local food. In fact, the constant presence of natural light throughout the year has been stressed as a unique characteristic of Portugal (Ministry of Economy and Innovation, 2007). The fresh air, also denominated pure air in the literature, has been reported in previous empirical research and pointed out as a key attractor of the countryside, where individuals can restore their energy (Gretzel & Fesenmaier, 2003; Kastenholz & Lima, 2011). Additionally, the local gastronomy is seen as an important endogenous resource that can be used to enhance interactive sensory tourist experiences (Daugstad, 2008; Everett, 2008; Quan & Wang, 2004), simultaneously facilitating the inclusion of rural communities in the process of planning an integrated rural tourist experience (Beer, Edwards, Fernandes, & Sampaio, 2002; Kastenholz et al., 2012b; Saxena et al., 2007). Hiking, trekking, and farm-related activities seem to have the potential to enhance the reported sensory aspects, which is reinforced by the existence of a travel motive for experiencing a traditional way of life. This segment finds a counterpart in the segment named “traditionalist ruralists” in the study of Kastenholz et al. (1999) or in the “ruralist segment” suggested by Almeida et al. (2013).

The segment corresponding to the theme “generic beach-related experience” is an *all-in-one* experience, comprising a diversity of sensory impressions pertaining to all five human senses. Although there is clear evidence that the beach is the central aspect of the experience, contact with the surrounding countryside is stressed by the sensory references to the smell of nature, the taste of sweet and salty, local beverages, fruit, and aromatic plants. The references to the sense of touch, with regard to the texture of sea and sand and the sensation of heat, suggest a summer experience. With respect to

previous research, this segment can be compared with the groups found in the works by Almeida et al. (2013), Kastenholz et al. (1999), or Park and Yoon (2009), in general termed as “want-it-all” rural tourists. These individuals seem not to be focused on a particular feature but on general contact with a variety of aspects of the destination.

The individuals composing the segment corresponding to a “nature-based experience” highlight the sounds of nature, with emphasis on farm animals, crickets, and insects. The color green and the taste of bread are also mentioned. Hiking and trekking activities are suggested as boosting this variety of sensory experience. Similarly to the segment related to a “rural tourism experience,” the travel motive of having a rural lifestyle experience is related to the perception of this sensory-based theme. In previous studies, bundles including the color green and the sound of animals are labeled as outdoor and scenic/nature-related themes (Gretzel & Fesenmaier, 2003), evincing the importance of experiencing nature in rural settings (Rodrigues, Kastenholz, & Rodrigues, 2010).

The segment corresponding to a “balanced experience” focuses on the sense of hearing, stressing the sound of silence, sea, and wind. With respect to the haptic sense, the sensory impressions concern wind and coolness. Activities such as surfing, hiking, and trekking are suggested as potentiating these sensory impressions, which seem to be more spiritually related than those reported previously (Rodrigues et al., 2010; Sharpley & Jepson, 2011). In the context of rural settings, the sounds pertaining to nature help to activate the aural sense, silence being especially appreciated since it means an absence of urban noise (Daugstad, 2008; Pan & Ryan, 2009). It is suggested that individuals had the opportunity to experience a sense of communion with some nature-related elements and find a sense of equilibrium (Arnould & Price, 1993).

Worth noting is the fact that the travel motive for having an active nature-based experience does not statistically differentiate the segments, despite 58.6% (agree + strongly agree) of the respondents claiming this as a trigger for choosing Southwest Portugal as a destination for vacations. One possible interpretation of this result could be related to the fact that most of the respondents had performed a nature-based activity while in the rural area under study, such as hiking or trekking (**Table 4.7**), making the referred-to motive insufficient for differentiating segments, but instead being transversal to the perception of tourists’ sensory experience. In fact, the literature stresses that the

idea of the enjoyment of nature is common to all segments of rural tourists, since the closeness to nature and the “pastoral image” is strongly connected to the image of the countryside and to the expectation associated with rural holidays (Almeida et al., 2013; Figueiredo, 2009). This result could also indicate that, although active nature-based experiences are a clear tourist trigger, the destination under study still lacks an integrated offering creating opportunities for tourists to participate actively in nature-based activities and facilitating differentiable sensory experiences. Furthermore, one should be taking into account that most of the respondents were travelling with their family (38.1%), partner (38.1%), friends (14.9%), or company groups (8.3%). Hence, the individual experience in the destination depends on other persons’ choices, and may not correspond to the individual motives.

Similarly, despite the fact that 58% of the tourists referred to “birdsong” as a dominant hearing sensory impression regarding their experience in Southwest Portugal (**Table 4.2**), this sensation was not included in any final sensory-based theme since it did not discriminate any dimension clearly, by seeming to be diluted among the different central themes. Despite the potential of the area for birdwatching, an activity boosted by the existence of several endemic protected species of birds in the Southwest Alentejo and Vicentina Coast Natural Park, this activity was referred to only by a minority of respondents (included in “others” in **Table 4.7**). This finding may suggest a lack of local infrastructures and an integrated offering creating the conditions for positive tourist experiences to emerge couched in birdwatching-related activities.

#### **4.6.1 Managerial implications**

The conclusions of this study are in line with the idea that since the rural world is built upon multiple and complex patterns (Lane, 1994a), individuals can consume and perceive the countryside in many different ways, according to their needs and interests (Frochot, 2005). The correspondence of sensory-based themes to different segments is an interesting finding, suggesting that specific marketing strategies can be built more efficiently to address different profiles of tourists. In this context, the use of sensory-based themes can be used to facilitate the co-creation of rich, unique, and appealing destination experiences (Mossberg, 2007), aiming to achieve the optimal use of the local resources (Saxena et al., 2007) and boosting destination competitiveness and

sustainability (Kastenholz et al., 2012b; Lane, 2009). Thus, apart from the emotional and symbolic features, the attempts to facilitate the emergence of memorable tourist experiences in rural areas may focus on sensory elements related to nature (e.g. local fauna and flora, natural landscape) and rural characteristics of place identity (e.g. local products, gastronomy, handicrafts, farm activities, local architecture), enabling a pleasurable aesthetic experience (Kastenholz et al., 2012a).

In addition to the fact that all four of the themes suggested by the MCA include nature-based sensory impressions, the rural trigger is specifically evidenced in two segments (rural experience and nature-based experience). In an exploratory study, Kastenholz et al. (1999) identify a cluster of tourists seeking a traditional way of life and pose this group as the most sustainable for North and Central Portugal, since this segment is mainly attracted by rural features, such as undeveloped local resources and the local cuisine. The same idea is suggested by the study on rural tourism in Madeira, a Portuguese island, conducted by Almeida et al. (2013). Furthermore, in the present study, excluding the theme pertaining to a “generic beach-related experience,” the remaining three sensory-based themes suggest that the tourist experiences related to these themes could be potentiated throughout the year, supporting the continuous efforts to mitigate the seasonality problems existing in the south of Portugal. Also, since specific bundles of sensory impressions seem to be stressed by participation in diverse activities, bolstering rural and nature-related features, destination efforts should present a structured offering couched in central activities, such as hiking/trekking, farm-based activities, or birdwatching. Considering that Southwest Portugal is characterized by a long coastal area and by the existence of several beaches appropriate for surfing, it is important to note that surf tourism is a growth activity that, if correctly managed, could be considered as an interesting niche market contributing to local sustainable development (Buckley, 2002). Similarly, hiking-related activities encompass the particular characteristic to bolster the therapeutic benefits of nature, contributing both to a balanced state of body, spirit, and mind and to rural development, resulting from the development of personalized planning focusing on endogenous resources and aiming to improve the overall visitor experience (Rodrigues et al., 2010). With this view, the destination marketing organizations operating in the area under study should concert their efforts in order to analyze the sensory-based themes/segments that best fit the

goals of the destination, considered the interests of tourists, the community, and the tourism industry.

Against this background, the process of capturing sensory-based themes with regard to tourist experiences in the countryside may be used as a tool to support decision-makers in planning and marketing tourist destination experiences carefully. Specifically, sensory information is of central importance in creatively communicating and branding tourist experiences, without losing sight of conservation priorities. Sensory based-themes could be applied in the development of sensory itineraries encouraging small regions with similar sensescapes to find niches and to promote themselves cooperatively (Pan & Ryan, 2009). These sensory itineraries could be directed towards specific groups with different motives and needs, such as journalists, investors, or visually impaired visitors (Dann & Dann, 2011; Richards, Pritchard, & Morgan, 2010; Small et al., 2012), simultaneously enhancing the destination experiences of other visitors. Particularly in the case of Southwest Portugal, tourists seem to identify fewer haptic impressions in their experiences when compared with the other senses. These preliminary results may suggest that more attention should be given to the sense of touch by tourism decision-makers in exploring the tactile potential of the destination, taking into account that previous research has evidenced the haptic sense as being of primary importance in experiencing places (Paterson, 2009; Pocock, n.d.; Rodaway, 2009). The underlying idea of capturing and using sensory-based themes in the destination marketing and management adds value to the performance of rural destinations, while promoting sustainable local development.

#### **4.6.2 Limitations and suggestions for future research**

Since MCA is an exploratory form of analysis, and is not suitable for testing hypotheses, only research questions were explored in this study. Additionally, a review of the extant literature on tourism revealed a lack of empirical studies with a holistic approach to the five human senses. Whilst this study intended to contribute to mitigating this research gap, further research is needed in order to understand more deeply the role of the sensory dimension in tourist experiences. Particularly, it would be interesting to compare the results of studies conducted in different rural areas with regard to the existence of similar central sensory-based themes and not only their

contribution to tourists' satisfaction, long-term memory, and loyalty, but also their contribution to the planning and marketing of a rural destination in terms of achieving the goals of local sustainable development. Finally, the use of a small sample made it difficult to analyze the connection between the activities performed in the destination by tourists and the segments of tourists based on sensory information, since some activities presented a low percentage of responses. In fact, a non-respondent bias must be accepted due to our reliance on owners/managers of rural accommodation to distribute the questionnaires to tourists who were eligible to participate in the study. For example, activities such as biking, alternative therapies, birdwatching, horse riding, or walks in nature with donkeys were rated as "others" due to the lower number of responses. Additionally, it is important to note that the answers to open-ended questions rely upon the verbal and writing skills of the respondents, as well as their willingness to provide multiple responses (McDougall & Fry 1974, cited in Govers et al., 2007), a problem somewhat surpassed by the fact that in general rural tourists are characterized by a high level of education. In this context, future research using a large sample and extending the collection of data to an all-year time period would be advised in order to confirm the results, to analyze the influence of these particular activities on sensory tourist experiences, and to verify the extent to which visiting the destination during different seasons of the year influences the resulting sensory-based themes, from the perspective of tourists.

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**CHAPTER 5**  
**STUDY 4 - *SENSESCAPES* AND MEMORIES OF TOURIST**  
**EXPERIENCES IN THE COUNTRYSIDE<sup>9</sup>**

**Abstract**

The role of the sensory dimension of tourist experiences is evinced in current tourism research, supported by a multidisciplinary view on the role of the five external senses in human perception, memory, and behavior. While the marketing management approach stresses the importance of considering multi-sensory information in the process of facilitating positive and memorable tourist experiences, more empirical research is needed in order to validate the theoretical literature. This study aims to contribute to the understanding of the role of *sensescapes* in facilitating memorable tourist experiences in the countryside and exploring the connection between long-term memory of *sensescapes* and destination loyalty. An analysis of data collected in a two-step process conducted in loco and six months after the tourists' visit reveals that richer sensory tourist experiences may have an important role in the long-term memory of individuals' experiences, potentiating favorable tourist behavior towards rural destinations.

**Keywords:** *sensescapes*; sensory tourist experiences; long-term memory; destination loyalty; countryside

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Co-authored with Patrícia Valle, PhD, and Júlio Mendes, PhD.

## **5.1 Introduction**

The tourism literature evinces the importance of the sensory dimension of tourist experiences and posits that destinations should attract visitors by more than optical elements alone (Agapito, Mendes, & Valle, 2013; Dann & Jacobsen, 2002, 2003; Ellis & Rossman, 2008; Everett, 2008; Govers, Go, & Kumar, 2007; Gretzel & Fesenmaier, 2003, 2010; Heide & Grønhaug, 2006; Jacobsen, 1997; Kastenholz, Carneiro, Marques, & Lima, 2012<sup>10</sup>; Markwell, 2001; Middleton, 2011; Mossberg, 2007; Oh, Fiore, & Jeoung, 2007; Pan & Ryan, 2009; Quan & Wang, 2004; Small, Darcy, & Packer, 2012; Son & Pearce, 2005; Walls, Okumus, Wang, & Kwun, 2011a, b). From the marketing perspective, this idea puts forward the assumption that the efforts in exploring the unique *sensescapes* associated with destinations contribute to facilitating positive memorable tourist experiences and generating positive outcomes, such as tourists' loyalty, leading to destinations' competitiveness (Ritchie & Crouch, 2003).

The concept of *sensescapes* implies that senses other than sight can be spatially ordered or place-related (Porteus, 1986), revealing the appropriateness of the study of *smellscapes*, *soundscapes*, *tastescapes*, and *haptiscapes*, in addition to *landscapes*, with respect to tourist destinations (Rodaway, 1994; Urry, 2002). In fact, the concept can be restricted to the sensory character of a geographical environment, such as a tourist destination, or broadly pertaining to the human sensory experience of that environment (Rodaway, 1994). This seems to be the case of multi-sensory encounters involving rural destinations (Crouch, 2002; Kastenholz et al., 2012a; Markwell, 2001). However, empirical research on tourist experiences following a holistic approach to the so-called five senses is still scarce (Agapito et al., 2013; Pan & Ryan, 2009), despite these human senses being responsible for receiving sensory information from the external environment (visual, aural, olfactory, gustatory, and tactile) that is crucial for individual perception, memory, and behavior (Damásio, 2009; Goldstein, 2010; Krishna, 2012). Furthermore, it is acknowledged that tourist experiences involve complex psychological processes, with a special focus on memory, and that remembered experiences may be better predictors of future behavior than the experiences reported in loco (Mitchell, Thompson, Peterson, & Cronk, 1997; Wirtz, Kruger, Scollon, & Diener, 2003). As a

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<sup>10</sup> Further references to this article in this study will be as follows: Kastenholz et al., 2012a.

result, a connection between remembered experiences and destination loyalty has been revealed in tourism literature (Lehto, O’Leary, & Morrison, 2004).

Against this background, some research topics remain unexplored, such as: the importance of the five senses for individuals’ likelihood of having a positive tourist experience, during and after their visit to the countryside; the differences between the reported sensory impressions by sensory modalities, during and after the tourists’ visit to the countryside; the contribution of *sensescapes* to the long-term memory of tourist experiences in the countryside; and the connection between long-term memory of *sensescapes* and destination loyalty. This study aims to offer some insights with respect to these research gaps and by doing so to contribute to the understanding of the role of *sensescapes* in facilitating memorable tourist experiences in the countryside and exploring the connection between long-term memory of *sensescapes* and destination loyalty.

With these concerns in mind, the literature review is divided into four sections. In the first part, the role played by human senses in perception and memory is discussed by focusing on the psychology literature. The importance of memory in the concept of tourist experience is the focus of the following section, highlighting the managerial approach to tourist experiences. Resulting from the two first parts, the connection between the memories of tourist experiences and loyalty is explored. Section four highlights the multidisciplinary character of *sensescapes*, focusing especially on human geography and on tourism research conducted in the countryside.

## **5.2 Research background**

### **5.2.1 Five senses, perception and memory**

The crucial role of the external human senses (*exteroceptive senses*) - sight, hearing, smell, taste, and touch – in human experience and knowledge of the surrounding world has been a topic of discussion since the early days of philosophy (Aristotle, 2001; Plato, 2003) and contemporarily in a variety of disciplines (for a review, see, e.g., Howes, 2005; Krishna, 2010), particularly in psychology and cognitive sciences (Goldstein, 2010). In this context, the relationship between sensations and perception has been a recurrent focus of research. Sensation refers to the activation of

sensory organs (eyes, ears, nose, skin, and taste receptors) by sensory stimuli (e.g., light, vibration, pressure, and chemical substances), which are converted into electrical signals and transmitted to the brain, making sensations the initiator of the individual's perception of the surrounding environment (Goldstein, 2010; Zurawicki, 2012). Psychology explains that despite being exposed to the same stimuli, individuals commonly focus their attention on different stimuli (attended stimuli), according to their different motivations, expectations, states of affect, and cultural background, influencing their final outcomes of perception, which can also be influenced by individual physiological specificities or sense deprivation. Perception can thus be described as a process through which sensory inputs are selected, organized, and interpreted, resulting in a "conscious sensory experience" (e.g., odors, colors, odors, sounds, textures, and tastes) (Goldstein, 2010, p.8). It follows from this that the factual knowledge required for reasoning and decision making comes to mind in the form of images that are of all sensorial varieties (Damásio, 2009). In fact, whether by using information from current events or by bringing previous learned information to a specific sensory experience, knowledge is present throughout this dynamic process. As a result, it is possible to distinguish the bottom-up processing and the top-down process, two processes that often work together to create perception and influence decision making and behavior. The former is based on incoming sensory data as the starting point of perception. The latter refers to processing based on the recalled knowledge (memory) involved in the perceptual process (Goldstein, 2010).

Memory is an "an alliance of systems that work together, allowing us to learn from the past and predict the future" (Baddeley, 1999, p.1). The intense research on memory in the 1960s led to several models that tended to assume three varieties of memory: sensory memory, short-term memory, and long-term memory (Baddeley, 1999; Schwartz, 2011). Sensory memory refers to the role of the brief storage of sensory information in the processes involved in perception. Short-term memory, commonly referred to as working memory, relates to the temporal storage of information necessary for performing a range of complex tasks, such as comprehension, reasoning, and long-term learning, whilst long-term memory relates to more durable encoding and storage systems. With respect to long-term memory, some researchers use the terms *explicit* or *declarative* and *implicit* or *non-declarative* memory in order to distinguish different types of learning and memory. *Implicit* memory pertains to

situations in which some form of learning has occurred, but which is reflected in performance (e.g., conditioning and skills, such as how to ride a bicycle), whilst *explicit* memory refers to memory of facts or events (semantic or episodic memories). Semantic memory relates to general facts and knowledge, whereas episodic memories involve individuals' long-term store of factual memories concerning personal experiences (Baddeley, 1999). For example, autobiographical memories of tourist experiences (Tung & Ritchie, 2011) are specific episodic memories referring to knowledge concerning experiences involving the *self* (Conway & Pleydell-Pearce, 2000). In fact, episodic memories are the type of long-term memory considered to be the most interesting to study in relation to tourist experiences (Larsen, 2007), considering that “lived experiences gather significance as we reflect on and give memory to them” (Curtin, 2005, p.3).

### **5.2.2 Sensory stimuli and memorable tourist experiences**

Tourist experiences involve complex psychological processes, with a special focus on memory (Larsen, 2007; Tung & Ritchie, 2009). Although several definitions coexist in the literature, tourist experiences can be considered as individual and subjective evaluations of events related to tourist activities resulting in specific outcomes and involving the anticipation and recollection stages in addition to the activity at the destination (Cutler & Carmichael, 2010; Tung & Ritchie, 2011). Larsen (2007, p.15) verifies tourist experiences to be past personal travel-related events “strong enough to have entered long-term memory”. Considering the importance of marketing management in planning environments in which positive memorable tourist experiences are more likely to occur, the concept of positive memorable experiences has been enthusiastically discussed and empirically studied (Tung & Ritchie, 2011). Thus, efforts to facilitate the emergence of tourist experiences characterized as being “positively remembered and recalled after the event has occurred” (Kim, Ritchie, & McCormick, 2010, p.13) are undertaken by destinations in order to be competitive (Ritchie & Crouch, 2003).

Considering the subjective nature of experiences and the selective nature of human perception, Ooi (2005) suggests that the role of tourism mediators is to compete for tourists' scarce attention (Davenport & Beck, 2001), by offering cues that help

tourists to frame their experiences. These cues can be tangibilized into *sensory markers*, through which tourist experiences are *sculpted* (Ooi, 2005). In fact, sensory stimuli have been posed as central in planning and marketing consumer experiences (Krishna, 2010; Pine & Gilmore, 1998; Schmitt, 1999; Schmitt & Simonson, 1997). In this regard, empirical studies on consumption experiences emphasize the importance of the sensory dimension when compared with other dimensions of consumer experiences. Specifically, with respect to *brand experience*, Brakus, Schmitt, and Zarantonello (2009) claim the central role of the sensory dimension in addition to the cognitive, affective, social, and behavioral dimensions, whilst Gentile, Spiller, and Noci (2007) suggest that the value associated with the sensorial component is substantially higher when compared with the emotional, cognitive, pragmatic, lifestyle and relational components in co-creating value with the customer. Accordingly, the experiential approach outlines the importance of hedonic consumption, resulting in the proposal that attention should be paid to the activity of devising the right multi-sensory environment aiming to optimize and contribute to value creation for both customers and companies (Addis & Holbrook, 2001; Gentile et al., 2007; Holbrook & Hirschman, 1982; Pine & Gilmore, 1998). Indeed, with the increasing focus on the experiential and symbolic aspects of consumption, the aesthetic dimension of consumption has boosted its relevance to marketing (Charters, 2006), and in particular to tourism marketing, considering the inherent experiential nature of tourism (Oh et al., 2007; Quan & Wang, 2004; Ryan, 1997; Williams, 2006).

Despite the complexity of the aesthetics concept, the original Greek meaning of the word supports its broad definition as the “perception of the external world by the senses” (Degen, 2008, p.38). Furthermore, Cupchik (2002) defends that aesthetic perception involves both sensory and symbolic elements, and refer to human-made objects, such as works of art, and to natural environments, both of which can be appreciated by an individual process of aesthetic evaluation (Charter, 2006). Hence, the body can be seen as the vehicle of the travel art (Adler, 1989) by contributing to the construction of a mental map of the environment through which the tourist travels, assisted by memories and expectations. Furthermore, the reach of the body can be extended by technological devices allowing a virtual experience of the destination (Neuhofer, Buhalis, & Ladkin, 2012; Rodaway, 1994; Tussyadiah & Fesenmaier, 2009). Since a variety of cues can assist the activity of recovering memories, such as smells or

songs (Baddeley, Eysenck, & Andersen, 2009), several researchers suggest the effectiveness of using sensory cues in eliciting tourists' memory (Govers et al., 2007; Gretzel & Fesenmaier, 2003, 2010). In an empirical study, Ballantyne, Packer, and Sutherland (2011) recorded visitors' memories of wildlife tourism experiences four months after the visit, and in addition to emotional affinity and reflective and behavioral responses, the visitors reported vivid visual, auditory, olfactory, or tactile memories. From this viewpoint, frameworks aiming to stage tourist experiences (Ellis & Rossman, 2007; Mossberg, 2007; Oh et al., 2007; Walls et al., 2011a) highlight sensory stimuli as environmental factors, by composing the physical/virtual setting in which the consumption takes place and facilitating social interactions (Bitner, 1992; Heide & Grønhaug, 2006; Walls et al., 2011b).

### **5.2.3 Memories of tourist experiences and destination loyalty**

Larsen (2007, p.7) posits that remembered experience is a retrospective global evaluation, making tourist memories central to the study of tourist experiences, forming the basis for new preferences and expectancies, and affecting decision making. The challenge of a destination being to engage tourists fully and enhance customer loyalty (Tung & Ritchie, 2011), some efforts have been undertaken in order to understand the impact of tourists' memories of destination experiences in individuals' future choice. Empirical studies have shown that the remembered experiences of visitors may be better predictors of repeat experiences in the future than the reported experiences during the visit, despite the latter being more accurate regarding the in loco experience (Mitchell et al., 1997; Wirtz et al., 2003). Furthermore, since memory is dynamic, involving the processes of encoding, storage and retrieval, the post-experience could alter the memory of sensory experiences (Braun-LaTour & Latour, 2005, p.20), suggesting a dissonance reduction (Cohen & Goldberg, 1970), i.e., using post-decision information to reinforce the wisdom of a previous decision. Hence, the findings of the research by Braun-LaTour & Latour (2005) on the influence of after-exposition to advertising in remembering and evaluating consumer experiences highlight the reconstructive character of memory. However, remembered positive tourist experiences may not lead to the returning of tourists to the destination. This does not necessarily mean dissatisfaction, but rather the need of some tourists to seek novelty and thus their desire to visit other destinations

(Jang & Feng, 2007; Williams & Soutar, 2009), financially related issues, or simply not wanting to risk repeating an extraordinary experience and ruining it (Tung & Ritchie, 2011). Accordingly, Zauberan, Ratner, and Kim (2009) found in five empirical studies that when consumers make decisions about experiences to consume over time they feel the need to protect their memories. The first two studies demonstrate that people tend to avoid situations with the potential to threaten their ability to retrieve special memories, such as returning to a special place like a honeymoon destination. The following three studies demonstrate that people seek to obtain memory pointers to help them cue special memories at a later time when they anticipate interference from following events. In fact, many tourists continue to enjoy the pleasure of their choice (experience) after returning home in the form of dinner-table stories, souvenirs, photo sharing with family and friends, and memories that last. The places visited, as well as the activities performed and the experiences lived by tourists, have a symbolic value in the presentation of the self to friends, colleagues, and family (Crouch, Perdue, Timmermans, & Uysal, 2004, p.4). Thus, tourists create stories during their trips and then present them to family and friends as memories of their trips (Moscardo, 2010; Mossberg, 2007).

Against this background, in addition to the study of behavioral loyalty, by using repeat visitation as a measurement indicator (Opperman, 2000), research on tourism has been paying attention to other variables pertaining to attitudinal loyalty, such as the willingness to recommend and say positive things about a destination to family and friends (Baker & Crompton, 2000; Lehto et al., 2004). The latter is based on theory of the theory of reasoned action, which suggest that behavior can be predicted from intentions that correspond directly to that behavior, i.e., it seems to be adequate to study behavior through the analysis of intentions, if action, purpose, context, and time are identified in a similar way to that which is expected to be the individuals' effective behavior (Ajzen & Fishbein, 1980; Belk, 1975). Based on previous consumer loyalty research, this tendency is reinforced by the study of Chen and Gursoy (2001, p.79) which operationally define destination loyalty as the "level of tourists' perceptions of destination as a recommendable place." In addition, recommendation from relatives and friends constitute the most credible informative agent in the process of choosing a holiday destination, and as a result, special attention should be paid to this particular variable (Chen, 2003; Chen & Gursoy, 2001). Also, considering that tourists' intentions

change often over time, few studies have compared reported behavioral intentions towards a destination in loco with monitored intentions after the tourists have returned home (Jang & Feng, 2007).

#### **5.2.4 Sensescapes and tourist experiences in the countryside**

Sensory perception is not only of a corporeal nature, but is also culturally and sociologically embedded (Classen, 1997; Howes, 2005; Schwarz, 2013; Vannini, Waskul & Gottschalk, 2011) and related to time and place (Corbin, 2005; Jütte, 2005; Smith, 2007). Thus, senses act simultaneously as information sources and mediators of everyday experiences, influencing human behavior (Damásio, 2009; Howes, 2005; Merleau-Ponty, 2002). Accordingly, Rodaway (1994), in his seminal work *Sensuous Geographies*, advocates that the concept of *sensescapes* carved by Porteus (1986) involves a process of engagement of person-environment since the term “scape” implies a relationship between person and place. This idea extends the paradigm of *embodiment*, which assumes an integration of mind and body (Csordas, 1990; Damásio, 2009; Merleau-Ponty, 1962), to the paradigm of *emplacement*, which integrates a sensory interrelationship between body, mind and place, implying a sensory reaction to place (Howes, 2006; Rodman, 1992; Tuan, 1977). As a result, Rodaway (1994) approaches *sensescapes* as human experiences of the surrounding environment, contributing to the geographical understanding resulting from the stimulation of the senses, i.e., the *sensuous experience* of geographical encounters. Since tourist experiences involve multiple sensory experiences of destinations (Crouch, 2002; Markwell, 2001), a holistic approach to the so-called five senses seems to be appropriate (Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009). Particularly, the countryside is embedded in a sensuous world, embracing diverse undeveloped resources (e.g. water, natural landscapes, and rich fauna and flora) and cultural assets (e.g. local gastronomy, local traditions, and local architecture), which together shape romantic scenery contrasting urban environments, which for that reason is pursued by visitors

coming from urban areas (Butler, Hall, & Jenkins, 1998; Kastenholz, Carneiro, & Marques, 2012<sup>11</sup>; Lane, 1994; Page & Getz, 1997; Roberts & Hall, 2004).

#### **5.2.4.1 Exploring sensory tourist experiences**

Despite working holistically in contextualizing tourist experiences and being interrelated with other components of the experience, such as emotions, senses can be separate and studied in order to understand and enhance individuals' global experiences (Gretzel & Fesenmaier, 2003, 2010; Krishna, 2010; Pan & Ryan, 2009; Rodaway, 1994). Indeed, places have unique sensory qualities, making important for destination to know how people perceive the sensory make-up of places (Dann & Jacobsen, 2003; Degen, 2008). In this regard, Heide and Grønhaug (2006, p.277) postulate that “because the atmosphere of a particular environment can be sensed, it can be described in sensory terms.”

##### *Visual experience*

Visual processing occupies a larger area of the brain the remaining sensory systems, being assigned to a quarter of the volume of the brain (Zurawicki, 2010). Also described as the intellectual sense, it is the most studied of the senses (Rodaway, 1994). Vision permits the viewer to be situated and demarcates physical distance (Degen, 2008), presenting a synthetic view of the environment and allowing individuals to differentiate objects with respect to their colors, textures, shapes, relative size and arrangement in space (Rodaway, 1994). Sight has been described as a *taken-for-granted sense*, so much part of the everyday experience that people do “not fully appreciate its distinctiveness role, nor its subtle inter-relationship with the other senses” (Rodaway, 1994, p.117). Indeed, while vision alone gives access to surfaces, perceptions commonly associated with sight are derived supplementarily from the other senses (Degen, 2008; Rodaway, 1994). Accordingly, in her study on the dynamism of landscape in rural tourism, Daugstad (2008) emphasizes the multi-sensory character of rural landscapes, despite their traditional association with romantic and nostalgic visual

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<sup>11</sup> Further references to this article in this study will be as follows: Kastenholz et al., 2012b.

scenery. In fact, the everyday use of the term landscape is dominantly associated with visual representation, which should not conceal the inherent complexity of the concept that illustrates the way in which cultural practices defines visual experience (Rodaway, 1994, p.127).

### *Haptic experience*

Touch comprehends a twofold process in which a relationship is established between the external environment and the body, it being considered that when people touch, they are simultaneously touched. This makes touch the most reciprocal and intimate senses involving the whole body (Degen, 2008; Rodaway, 1994). Moreover, skin is the first sense organ to develop and, although it is possible to live without one or more senses, losing the skin implies not surviving long (Rodaway, 1994). The haptic sense provides, for example, information on the temperatures and textures of the environment through pressure (Rodaway, 1994), and it can be characterized as non-direct in the way that touch gradually reveals objects and does not capture them all at once (Classen, 1998; Degen, 2008). The sense of touch works as a sensory experience through material engagement, such as the physical contact in scuba diving, an activity evoking complex emotions and revealing some haptic therapeutic experiences related to the aquatic world (Straughan, 2012). In a study on the importance of sensory experiences in visitors' understanding and appreciation of the Great Barrier Reef, Pocock (n.d.) calls attention to a problem deriving from the increasing diminishing of the opportunities for touch experiences. This phenomenon is in part related to the efforts to minimize visitors' impacts on sensitive environments, but may lead to a loss of sense of place. In fact, the researcher suggests that without strong tactile sensations, tourists' experiences of landscapes become confined to space, dislocated, and optically based, making it difficult to form a sense of place that originates from knowledge derived from embodied experience (Casey, 1996; Tuan, 1977).

### *Hearing experience*

The auditory sense is strongly related to emotions (Degen, 2008), the auditory system being the most dynamic of the senses, implying vibration and permitting the hearer to identify different qualities of sounds (e.g. tones, volume, and rhythm). The aural sense can thus be described as an “eventful world” (Ong, 1971), playing a central

role in interpersonal communication and risk avoidance (Degen, 2008; Zurawicki, 2010). However, silence has been posed as beneficial to individuals (Prochnik, 2011). Hence, despite the fact that absolute silence does not exist, which would mean the ending of all vibrations – a vacuum (Rodaway, 1994), there are different textures in the sonic environment that are important to recover as human experiences. Particularly in a rural context, sounds pertaining to nature help to activate the aural sense, silence becoming especially appreciated since it means the absence of urban noise (Daugstad, 2008; Pan & Ryan, 2009). Moreover, Schafer (1977) distinguishes between “lo-fi” and “hi-fi” *soundscapes*. While the former is related to many unclear sounds and a high noise rate, typically associated with cities, the latter is rich in distinctively sonic information, generally a feature of countryside environments. Schwarz (2013) identifies individual variances in sonic preference in nature sites, resulting in the perceived noise by visitors, i.e., sounds that seem to be “out of place”, impacting on tourists’ level of satisfaction. Considering that auditory experience “plays a key role in anticipation, encounter and memory of places” (Rodaway, 1994, p.96), places can be associated with keynotes, such as the sea for a maritime culture or the birdsong for the countryside, for example.

#### *Olfactory experience*

Smell is the most evasive sense to describe. On one hand, there is a language problem related to the difficulty of describing scents, due to the lack of existing smell adjectives and the availability of only “smells like” (Degen, 2008; Rodaway, 1994). On the other hand, scents are noticed only for moments, disappearing after one has adapted to them (Degen, 2008). In this respect, Rodaway (1994) pinpoints the fact that most of the time it is the visitor who becomes aware of the *smellscape* of a particular place, which could pass unnoticed or fail to be valued by residents since they have already adapted to these evocative smells. Smell is also a pervasive sense considering that “we might be able to close our eyes but we cannot close our noses” (Rodaway, 1994, p.67). Scents are especially important in reinforcing the particular character of a place and the emotional attachment to it, given that they trigger memories, familiarity, and attraction or disgust regarding people and objects (Degen, 2008; Rodaway, 1994). In fact, the importance of *smellscapes* resides precisely in their role in remembering places and in triggering nostalgic feelings pertaining to childhood, making odor memory more related

to long-term than to short-term memory, carved with rich, vivid and accurate details (Herz, 2010; Porteus, 1985; Rodaway, 1994). Thus, despite being difficult to describe, odors provide places with a unique character, making them easier to identify and remember (Tuan, 1977): a characteristic that can be explored by contemporary destinations (Dann & Jacobsen, 2002, 2003). In fact, a trend among travel writers to portray the countryside in a more favorable manner than the city was identified by Dann and Jacobsen (2003), and while the inverse is undesirable, the activity of transporting the countryside scents to the city (*rus in urbe*) has been seen as an avenue worth pursuing.

### *Gustatory experience*

Tourist destinations may increase the appeal to the gastronomic sensations pertaining to food and drink via smell, since the olfactory sense is strongly linked to taste and to the context of the enjoyment of food, which emphasize the relational character of the senses (Rodaway, 1994). In addition to the five pure tastes related to the biochemical and cellular interactions in the human body – sweet, salty, sour, bitter, and umami –, other tastes come as a result of other senses' inputs (Krishna & Elder, 2010). Thus, savoring a meal includes diverse smells, temperatures textures, colors, and sounds of biting food: varieties of sensations that the consumption experience within the concept of the *dark restaurant* intends to trigger. Accordingly, the multi-sensory appeal of gastronomic experiences can be explored by destination marketing organizations, since reputation pertaining to gastronomy is seen as crucial for destinations differentiation and marketing strategies (Hjalager & Richards, 2002; Kivela & Crotts, 2006). Particularly, local food is an important attractor for rural destinations, being considered an endogenous resource that can be used to enhance sensory tourist experiences interactively (Daugstad, 2008; Everett, 2008; Quan & Wang, 2004), by exploring its social dimension (Krishna & Elder, 2010). Ultimately, local gastronomic experience may contribute to the planning of an integrated and sustainable rural tourist experience (Beer, Edwards, Fernandes, & Sampaio, 2002; Kastenholz et al., 2012; Saxena, Clark, Oliver, & Ilbery, 2007).

## **5.3 Methodology**

### **5.3.1 Setting**

The study was performed in Southwest Portugal, a rural destination characterized by conciliating maritime and inland scenarios. The setting encompasses the Natural Park of Southwest Alentejo and Vicentina Coast, extending over approximately 100 kilometers through four municipalities: Vila do Bispo, Aljezur, Odemira, and Sines. The countryside area embraces a rich flora with over 700 species of plants, many of which many are native to Portugal. The setting is an important stopover for migrating birds, and it is also home of dozens of species of mammals and aquatic fauna, such as cetaceans, some of which are protected species. Geologically, the park comprises a variety of landscapes: cliffs, beaches, dunes, temporary lagoons, marshes, rocks, and estuaries (Hidroprojecto, 2008).

### **5.3.2 Data collection**

This study included a two-phase data collection process having as a target population tourists visiting Southwest Portugal and staying overnight at a rural lodging in the area. Firstly, a broad survey was conducted from 15 July to 15 December, 2011, in the three most representative municipalities of the area – Vila do Bispo, Aljezur, and Odemira. From 35 lodgings that were considered to meet the conditions for participating in the study, 11 places of accommodation (30%) voluntarily agreed to act as venues for administering the questionnaire. A sample of 195 tourists was determined using the most conservative estimate for a single proportion (0.5), a confidence level of 95%, and a margin of error of 7%. Tourists older than 17 years were invited to participate in the study, which was conducted in loco, at the end of the tourists' visit. Moreover, only one person from each family completed the questionnaire in order to avoid the risk of quasi-doubling a specific answer. The owners and/or managers of the accommodation were informed about the aims of the survey and received instructions on its application. From the 204 collected surveys, a total of 181 valid questionnaires were obtained, corresponding to 92.8% of the selected sample.

Subsequently, the respondents of the first survey (administered in loco) were invited to participate in the second phase of the research. A three-step process was

followed: a) six months after the visit, an initial email was sent to the respondents, which authorized the use of their personal information in completing a second survey online; b) one week later, non-respondents were emailed to remind them to complete the survey; c) three weeks later, a last email was sent, reminding non-respondents of the purpose of the second survey. A “Natural Map of the Algarve” provided by the Algarve Tourism Board was offered to the respondents. From the 189 valid questionnaires collected during the first phase of the study, 68 respondents (40.0%) authorized the use of their email addresses. Of these 68 individuals, 31 (45.6%) completed the second survey. For this specific study, the data analysis will rely on the two-phase data, i.e., the answers of respondents who participated in the study both during their stay and after returning home, making a total of 31 individuals.

The decision to use self-administered questionnaires (one in loco and the other online) is seen as important in order to give the respondents the opportunity to reflect on their experience, by not providing immediate feedback (Tung & Ritchie, 2011). Furthermore, Ballantyne and colleagues (2011) stress in their research on visitors’ memories of wildlife tourism experiences, in loco and four months after the visit, the importance of time elapsed after the experience, in order to ensure that the recorded memories are relatively long-lasting.

### **5.3.3 Instruments**

Three groups of questions were used simultaneously in the survey presented in loco and six months after the tourists’ visit to Southwest Portugal, with the intention of capturing tourists’ sensory impressions, destination loyalty, and sociodemographic and general information.

One group included five open-ended questions based on direct elicitation used in order to capture sensory impressions (Gretzel & Fesenmaier, 2010) with respect to the perception of tourists’ sensory experience in Southwest Portugal. Additionally, tourists’ level of agreement with the contribution of each one of the five senses to a positive tourist experience was measured by using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The second group of questions contained six measures of destination loyalty, which were adapted from Baker and Crompton (2000),

Williams and Soutar (2009), and Zeithaml, Berry, and Parasuraman (1996) and used a five-point Likert scale anchored at 1 (strongly disagree) and 5 (strongly agree). These items intended to assess recommendations and planning to return to the destination and to change from a rural holiday destination (the items are presented in Table 4). Both surveys administered in loco and after the visit used the same loyalty measures, except that the verb tense was changed (Wirtz et al., 2003), in order to evaluate intentions in the first study and effective behavior in the second study (e.g., “I would recommend a tourist experience in this rural setting if someone asks for my advice”; “I have recommended a tourist experience in this rural setting to people who asked for my advice”). The participants were also required to provide sociodemographic and general information with respect to their holidays in Southwest Portugal. The questionnaire was prepared in four languages – English, German, Portuguese, and Spanish – and then submitted to a pre-test with 12 visitors and three academic experts in the field, resulting in the refinement of the instrument with respect to vocabulary and design.

### **5.3.4 Data analysis methods**

The appropriateness of a phenomenographic post-positivist approach (Govers et al., 2007; Ryan, 2000) in this study is couched in previous research revealing the effectiveness of obtaining a description of a perceived experience by using sensory information in eliciting visitors’ memory, and conciliating qualitative and quantitative analyses (Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009). This approach was considered adequate in order to explore the four research questions in the study:

*Research question 1* – Are there differences between the reported importance of the five senses for individuals to live a positive tourist experience during and after their visit to the countryside?

*Research question 2* – Are there differences between the reported sensory impressions by sensory modalities, during and after the tourists’ visit to the countryside?

*Research question 3* – Which *sensescapes* mostly contribute to the long-term memory of tourist experiences in the countryside?

*Research question 4* – Is there a connection between long-term memory of *sensescapes* and destination loyalty?

In the first phase, a content analysis of the open-ended questions was conducted using the software IBM – SPSS Text Analytics for Surveys (STAS) 4.0.1 in order to extract meaningful sensory-based categories from the data. IBM Text Analytics for Surveys (STAS) is text-coding software developed to assist researchers in the analysis of survey responses to open-ended questions. This application allows the extraction of key concepts and the categorization of responses based on a combination of linguistic-based text mining and manual techniques (IBM, 2011). Before importing data to STAS, responses that were presented by non-English speaking respondents were translated into English with the assistance of English and Spanish native-speaking teachers and Portuguese native-speaking researchers (the authors themselves). Subsequently, a pre-reading of all the open-ended responses in English was conducted by two researchers in order to perform grammar and spelling uniformization, which was further assisted by the software. In order to extract sensory categories, the automatic word count option of STAS was used, followed by a manual process of aggregating words or expressions that were related to a specific meaningful sensory impression, having as a reference the external five human senses. The latter process was first conducted by the main researcher and further verified by a second researcher, with reference to the previous literature and empirical studies on senses in tourism (Govers et al., 2007; Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009) and research using STAS software (Guerreiro, 2012; Sahin & Baloglu, 2011).

In order to compare tourists' answers reported in loco with those reported a posteriori, the Wilcoxon matched-pair signed-rank test for two samples was used to evaluate *research questions 1* and *4*. This is a non-parametric statistical hypothesis test used when comparing two related samples in order to assess whether their populations' mean ranks differ. This test is appropriate for ordinal variables and when the data do not follow a normal distribution, since in these cases the correlated-samples t-test should not be used (Wilcoxon, 1945). The Z-test for two independent proportions was used to evaluate *research questions 2* and *4*, whilst the chi-square test for independence was performed as a supplementary analysis for *research question 4*.

Descriptive statistics, particularly percentages, were used to explore *research question 3*, as well as complementary analysis of all the research questions.

## **5.4 Results**

### **5.4.1 Sample profile**

The sample consisted of 13 males (41.9%) and 18 females (58.1%), making a total of 31 respondents. In terms of country of origin, 71.0% of the tourists were from Portugal and 29.0% were foreign tourists. In this sample, most participants had at least a college degree (87.1%), while the others had completed high school education (12.9%). A large proportion of the respondents were married or living as a couple (71.0%), and were travelling with family (41.9%), their partner (35.5%), friends (16.1%), or their work company (6.5%). The ages ranged from 26 to 61 years, with a mean of 38.5 years and a standard deviation of 9.712 years. This socio-demographic profile is in line with previous studies conducted in Portugal, as the typical visitor to rural areas is well educated, relatively older, and married (Almeida, Correia, & Pimpão, 2013; Kastenholz et al., 1999; Loureiro & Kastenholz, 2010). Additionally, for 61.3% of the tourists, it was the first time they had visited the destination, for 12.9% it was the second time, and 25.8% of the tourists had visited the destination three or more times before. The average length of stay was 4.71 days, one day being the minimum length of stay and 12 days the maximum.

### **5.4.2 Five senses and positive tourist experiences**

**Table 5.1** shows the results regarding the respondents' level of agreement with respect to the importance of the five senses in order to having a positive tourist experience (*research question 1*). The items of the Likert scale “strongly agree” and “agree” were aggregated in one column (“agreement”) and the levels “neither agree nor disagree”, “disagree”, and “strongly disagree” were amalgamated in a separate column (“no agreement”), in order to facilitate the analysis. The descriptive statistics reveal that the respondents' level of agreement attributed to each one of the five senses is always higher at the first moment of the study, when compared with the results obtained after the visit (second moment) (e.g., hearing 1: 93.5%; hearing 2: 74.2%). Accordingly, it is

clear in the sample that, after the visit, the tourists give a minimum rate to all the senses that is lower than during the visit (e.g., sight 1: minimum 4; sight 2: minimum 2). With respect to the hierarchy revealed among the senses considering the perceived contribution of each sense to participants’ positive experiences, the percentages of respondents’ agreement (see column “agreement”) reveal the same rating for the two moments of the study, in which sight rates higher and taste rates lower (sight 1: 100%; sight 2: 90.3%; taste 1: 77.5%; taste 2: 67.7%).

The Wilcoxon matched-pair signed-rank test for two samples was used in order to determine whether there are differences between the importance attributed by tourists to the five senses to having a positive tourist experience, during and after the visit. **Table 5.1** presents the results of the test, based on positive ranks, and shows that there are no significant differences between the importance attributed to each sense by tourists in loco and after the visit, at the 1% or 5% significance level. However, the differences involving sight and hearing are significant at the 10% significance level.

**Table 5.1**  
Importance of the five senses to positive tourist experiences

Senses (moment 1/ moment 2)	Min.	Max.	Median	Mode	No agreement <sup>a</sup>	Agreement <sup>b</sup>	Wilcoxon Signed Rank Test
<i>Sight 1</i>	4	5	5	5	0%	100%	WilcoxonZ = - 1.806;
<i>Sight 2</i>	2	5	4	4	9.7%	90.3%	<i>p</i> -value = 0.071
<i>Hearing1</i>	3	5	4	4	6.5%	93.5%	WilcoxonZ = - 1.713;
<i>Hearing2</i>	2	5	4	4	25.8%	74.2%	<i>p</i> -value = 0.087
<i>Smell 1</i>	3	5	4	4	12.9%	87.1%	WilcoxonZ = -.246;
<i>Smell 2</i>	2	5	4	4	19.3%	80.7%	<i>p</i> -value = 0.806
<i>Touch 1</i>	2	5	4	4	19.3%	80.7%	WilcoxonZ = -.494;
<i>Touch 2</i>	1	5	4	4	19.4%	80.6%	<i>p</i> -value = 0.621
<i>Taste 1</i>	3	5	4	4	22.5%	77.5%	WilcoxonZ = -.632;
<i>Taste 2</i>	1	5	4	4	32.3%	67.7%	<i>p</i> -value = 0.528

<sup>a</sup> Neither agree nor disagree + disagree + strongly disagree  
<sup>b</sup> Agree + strongly agree

### 5.4.3 Sensory impressions during and after the visit to the countryside

As observed in **Table 5.2**, the results of the content analysis of the open-ended questions show that all five human senses achieve a high number of references, both during and after the visit. While in the destination, the 31 participants referred to 409

sensory-based words or expressions. The sense of sight collected the most references (24.9%), followed by hearing (22.3%), taste (21.0%), touch (16.4%), and smell, which gathered the lowest number of references (15.4%). Six months after the visit, the same tourists used 328 words or expressions that matched one of the five human senses. Of these, the sense of sight still assembled the most references (31.7%), followed by hearing (18.3%), taste (18.0%), touch (17.1%), and smell (14.9%), maintaining the rating of senses revealed in loco considering the percentage of references attained by each sense. Nevertheless, with an opposite tendency regarding the other senses, the percentages of sensory impressions reported by participants are higher after the experience with respect to sight and touch (sight 1: 24.9%, sight 2: 31.7%; touch 1: 16.4%; touch 2: 17.1%).

**Table 5.2**  
Sensory impressions in loco and after the visit

Senses	In loco Sensory impressions	%	After the visit Sensory Impressions	%	Z test
<i>Sight</i>	102	24.9%	104	31.7%	-2.035; p-value = 0.0419
<i>Hearing</i>	91	22.3%	60	18.3%	1.323; p-value = 0.1858
<i>Taste</i>	86	21.0%	59	18.0%	1.031; p-value = 0.3025
<i>Touch</i>	67	16.4%	56	17.1%	-0.25; p-value = 0.8026
<i>Smell</i>	63	15.4%	49	14.9%	0.175; p-value = 0.8611
<b>Total</b>	409	100%	328	100%	-

For each sense, the significance of the differences between the percentages of reported sensory impressions by sensory modalities, during and after tourists' visit, was assessed by performing a Z-test for the difference between two proportions (*research question 2*). As can be observed in **Table 5.2**, there are no significant differences involving the senses of hearing, taste, touch, and smell, at the 1% or 5% significance level. The only significant difference involves the visual sense, at the 5% or 10% significance level.

#### **5.4.4 Memorable *sensescapes* in the countryside**

Having as a reference the five senses, the reported sensory expressions during and after the tourists' visit to Southwest Portugal were categorized into meaningful *sensescapes* (*research question 3*). The sensory categories obtaining at least 10% of the references (Govers et al., 2007) by the total of respondents (31), at each moment of the study, are presented in **Table 5.3**.

For the sense of sight, the most common *sensescapes* reported during the visit are landscapes (61.3%), the natural light of the destination (29.0%), and the diversity of colors (25.8%), whilst, six months after the visit, the landscapes of Southwest Portugal are maintained as the top reference (48.4%). The mention of animals gains expression (in loco: 12.9%; a posteriori: 41.9%) and the natural light continues to appear in the top three references (38.7%). Worth noting is the focus on some *visualscapes* in the first phase of the study that have no expression after the visit. This is the case for the references to particular details of flora, such as trees (19.4%) and flowers (16.1%), as well for the maritime scenario (16.1%), sky (12.9%), and beaches (12.9%). Conversely, when recalling the experience, tourists report seeing local people (32.5%), a visual impression not mentioned during the experience.

With respect to the sense of hearing, the *soundscape*s mostly mentioned are “birdsong” (58.1%), “wind” (38.7%), and “sea” (32.3%), whereas when recalling the experience, the focus is on “nature” (35.5%), “birdsong” (29.0%), and “people” (25.8%). The *soundscape*s pertaining to “crickets” (25.8%), “animals” (19.4%), “farm animals” (16.1%), and “tree leaves” (12.9%) are mentioned at the first moment, but have no expression in tourists' long-term memory of the experience. The sound of the sea (in loco: 32.3%; a posteriori: 19.4%), the silence (in loco: 22.6%; a posteriori: 25.8%), and the sound of people (in loco: 16.1%; a posteriori: 25.8%), are referred to at both moments of the study.

**Table 5.3**  
Sensescapes during and after the experience

<b>In loco</b>	<b>% of respondents</b>	<b>After the visit</b>	<b>% of respondents</b>
<i>Sight 1</i>		<i>Sight 2</i>	
Landscape	61.3	Landscape	48.4
Natural light	29.0	Animals	41.9
Diversity of colors	25.8	Natural light	38.7
Architectural details	22.6	Diversity of colors	35.5
Trees	19.4	Local people	32.3
Flowers	16.1	Architectural details	16.1
Maritime scenario	16.1	River	12.9
Animals	12.9		
Sky	12.9		
River	12.9		
Beache (s)	12.9		
<i>Hearing 1</i>		<i>Hearing 2</i>	
Birdsong	58.1	Nature	35.5
Wind	38.7	Birdsong	29.0
Sea	32.3	People	25.8
Crickets	25.8	Wind	25.8
Silence	22.6	Silence	25.8
Animals	19.4	Sea	19.4
Farm animals	16.1		
People	16.1		
Tree leaves	12.9		
<i>Smell 1</i>		<i>Smell 2</i>	
Sea salty air	58.1	Fresh air	45.2
Plants	48.4	Plants	25.8
Fresh air	29.0	Flowers	22.6
Trees	12.9	Rain	12.9
<i>Taste 1</i>		<i>Taste 2</i>	
Seafood	48.4	Sweet	35.5
Local food	45.2	Local food	32.3
Sweet	35.5	Seafood	29.0
Fruit	32.3	Bread	25.8
Cheese	19.4	Local beverage	19.4
Local beverage	19.4	Fruit	12.9
Aromatic plants	16.1	Cheese	12.9
Bread	16.1		
<i>Touch 1</i>		<i>Touch 2</i>	
Heat	38.7	Heat	38.7
Coolness	32.3	Coolness	25.8
Sand	32.3	Water	25.8
Water	25.8	Plants	22.6
Plants	22.6	Sand	22.6
Rough textures	16.1	Diversity of textures	16.1
Wind	12.9		

For the sense of smell, the top three reported *smellscapes* in loco are “sea salty air” (58.1%), which has no expression when tourists recall the experience after the visit, “plants” (48.4%), and “fresh air” (29.0%), whilst at the second moment tourists focus on “fresh air” (45.2), “plants” (25.8%), and “flowers” (22.8%). Worth noting is the reference to trees in loco (12.9%) that is not recalled six months after the visit, as well as the memory of rain after the visit (12.9%), which is not referred to spontaneously by the participants while at the destination.

With respect to taste, the first three gastronomic *sensescapes* mentioned are the same whether tourists are at the destination or recalling the experience six months after the visit: “seafood” (in loco: 48.4.6%; a posteriori: 29.0%), “local food” (in loco: 45.2%; a posteriori: 32.3%), and “sweet” (in loco: 35.5%; a posteriori: 35.5%). The reference to “aromatic plants” is evidenced at the first moment (16.1%), having no expression when recalling the experience.

Regarding the sense of touch, the *haptiscapes* mostly mentioned in loco are “heat” (38.7%), “coolness” (32.3%), and the texture of “sand” (32.3%), whilst at the second moment of the study tourists point out the “heat” (38.7%), the “coolness” (25.8%), and the “water” (25.8%). The touch of “wind” is evinced by participants while at the destination, but this sensory experience has no expression in the long-term memory.

#### **5.4.5 Long-term memory of *sensescapes* and destination loyalty**

In order to evaluate whether there is a connection between tourists’ long-term memory of *sensescapes* and destination loyalty (*research question 4*), two groups of respondents were formed, based on the average reported sensory impressions six months after the visit to Southwest Portugal. Considering the total of sensory impressions (328) and the total respondents (31), the average of the references is 10.58. Considering this average, the first group of 18 individuals who reported 11 or fewer sensory impressions was formed, which was tentatively named “less sensory-sensitive tourists”. The second group of 13 participants who mentioned more than 11 sensory impressions was aggregated, being termed “more sensory-sensitive tourists”.

**Table 5.4**  
**Sensescapes recalled in loco versus after the visit and destination loyalty**

Destination loyalty measures	Less sensory-sensitive tourists		Wilcoxon test	More sensory-sensitive tourists*		Wilcoxon test
	In loco*	After visit*		In loco*	After visit*	
<i>I would (have) recommend (ed) a tourist experience in this rural setting if someone asks (to people who asked) for my advice.</i>	100%	88.9%	$Z = -2.673$ $p = 0.008^a$	100%	92.3%	$Z = -1.414$ $p = 0.157^c$
<i>I would (have) tell (told) positive things about my experience in this rural setting to others.</i>	100%	88.9%	$Z = -3.051$ $p = 0.002^a$	92.3%	100%	$Z = 0.000^d$ $p = 1.000$
<i>I would (have) encourage (ed) my family and friends to have a tourist experience in this rural setting.</i>	100%	66.6%	$Z = -2.810$ $p = 0.005^a$	92.3%	84.6%	$Z = -0.750$ $p = 0.453^c$
<i>I would (already have plans to) return to this rural setting, next year or the year after, to participate in the same activities.</i>	66.7%	33.9%	$Z = -2.389$ $p = 0.017^b$	69.3%	84.7%	$Z = -0.707$ $p = 0.480^c$
<i>I would (already have plans to) return to this rural setting, next year or the year after, to participate in the new activities.</i>	61.1%	33.4%	$Z = -2.887$ $p = 0.004^a$	61.5%	61.6%	$Z = -0.302$ $p = 0.763^c$
<i>I would (already have plans to) spend holidays in other rural setting in the future.</i>	94.4%	77.8%	$Z = -1.732$ $p = 0.083^c$	84.6%	53.9%	$Z = -1.438$ $p = 0.150^c$

\* Agree + strongly agree  
<sup>a</sup>  $p$ -value < 0.01  
<sup>b</sup>  $p$ -value < 0.05  
<sup>c</sup>  $p$ -value > 0.05  
<sup>d</sup> the sum of negative ranks equals the sum of positive ranks

**Table 5.4** shows the results of the Wilcoxon matched-pair signed-rank test for two samples in order to determine whether there are differences between tourists' behavior intentions (reported during the visit) and effective behavior towards the destination (reported six months after the visit) for "less sensory-sensitive tourists" and "more sensory-sensitive tourists." As can be observed, with respect to the "less sensory-sensitive" group, there are greater differences between the behavioral intentions and the effective behavior, which are statistically significant at a 1% or 5% significance level. The exception is the variable related to the tourists' plans to spend holidays in other rural settings. For this item, there is no statistical evidence for differences between the tourists' intention and their effective behavior ( $Z = -1.732$ ;  $p$ -value > 0.083), except for a 10% significance level. As for the "more sensory-sensitive" group, there are smaller differences between behavioral intentions and effective behavior and these differences

are not statistically significant ( $p$ -value  $> 0.05$ ). Furthermore, for some items, the level of agreement regarding effective behavior is superior to the willingness to act reported at the destination (e.g., *I would (already have plans to) return to this rural setting, next year or the year after, to participate in the same activities*. In loco: 69.3%; after the visit: 84.7%). With respect to the tourists' decision to choose a new rural setting to visit, their level of agreement is higher during the visit (84.6%) than six months after the visit (53.9%), suggesting that the respondents' willingness to change their holiday destination diminished after returning home.

**Table 5.5**  
“Less sensory-sensitive” versus “more sensory-sensitive” tourists and destination loyalty

Destination loyalty measures	In loco*		Z test	After visit*		Z test
	Less sensory-sensitive tourists	More sensory-sensitive tourists		Less sensory-sensitive tourists	More sensory-sensitive tourists	
<i>I would (have) recommend (ed) a tourist experience in this rural setting if someone asks (to people who asked) for my advice.</i>	100%	100%	n/a n/a	88.9%	92.3%	Z = 0.3 $p=0.752^a$
<i>I would (have) tell (told) positive things about my experience in this rural setting to others.</i>	100%	92.3%	Z = 1.2 $p=0.231^a$	88.9%	100%	Z = 1.2 $p=0.214^a$
<i>I would (have) encourage (ed) my family and friends to have a tourist experience in this rural setting.</i>	100%	92.3%	Z=1.2 $p=0.231^a$	66.6%	84.6%	Z = 1.1 $p=0.255^a$
<i>I would (already have plans to) return to this rural setting, next year or the year after, to participate in the same activities.</i>	66.7%	69.3%	Z=0.2 $p=0.878^a$	33.9%	84.7%	Z=2.8 $p=0.005^b$
<i>I would (already have plans to) return to this rural setting, next year or the year after, to participate in the new activities.</i>	61.1%	61.5%	Z=0 $p=0.982^a$	33.4%	61.6%	Z=1.6 $p=0.119^a$
<i>I would (already have plans to) spend holidays in other rural setting in the future.</i>	94.4%	84.6%	Z=0.9 $p=0.363^a$	77.8%	53.9%	Z=1.4 $p=0.16^a$

\* Agree + strongly agree

<sup>a</sup>  $p$ -value  $> 0.05$

<sup>b</sup>  $p$ -value  $< 0.01$

**Table 5.5** uses the Z-test for two proportions in order to determine whether there are differences between the “less sensory-sensitive” and “more sensory-sensitive”

groups with respect to their reported behavioral attitudes (in loco) and effective behavior (after the experience). As can be observed, there are smaller differences between the two groups regarding attitudinal loyalty mentioned in loco, these differences not being statistically significant at a level of significance of 5% or 10%. With respect to effective behavior reported six months after the visit, there are greater differences between the groups, the “more sensory-sensitive” group showing more favorable behavior towards the destination. The opposite is true for the item related to tourists’ plans to spend holidays in other rural settings, for which the level of agreement is lower for this group than the “less sensory-sensitive” tourists. However, only one destination loyalty measure pertaining to returning to the destination in order to participate in the same activities is statistically significant ( $p$ -value < 0.01). Additionally, when crossing the variables “previous visits to the destination”, aggregating into “first time” and “two or more visits before”, and the “less sensory-sensitive” and “more sensory-sensitive” groups of tourists, the chi-square test reveals a non-significant dependence relationship between the prior visitation and the level of recalling sensory experiences (chi-square: 2.6162;  $p$ -value: 0.141).

## **5.5 Discussion and conclusion**

This study suggests that a phenomenographic approach to the study of sensory tourist experiences in the countryside during the visit and six months after visitors have returned home offers important insights into the contribution of *sensescapes* to facilitating memorable tourist experiences in the countryside and the connection between long-term memory of *sensescapes* and destination loyalty.

With respect to the importance of the five senses for tourists to have a positive tourist experience (*research question 1*), there are no statistically significant differences when comparing tourists’ reports during and six months after the visit, except for the visual and aural senses, and only for the significance level of 10%. Regarding these senses, the importance attributed by participants is significantly lower in the second survey. When analyzing the sensory impressions reported by visitors to Southwest Portugal, the results show that a higher number of references pertain to the visual sense, and a lower number of references relate to olfactory experiences, at both moments of the study. An interesting finding is that, as noted above, while taste is considered by

tourists as the sense that contributes less to a positive tourist experience at both moments of the study, when tourists reported their sensory experiences, the gastronomic impressions were the third sense modality most referred to at both moments, revealing their impact on the experience. However, it is important to note that the lower number of references to olfactory experiences during and after the visit may relate to the difficulty in describing scents, which differ from visual impressions, which are easier to describe (Degen, 2008; Rodaway, 1994). Furthermore, there are no significant differences between the number of sensory impressions reported in loco and the number reported after the visit involving the senses of hearing, taste, touch, and smell, at the 1% or 5% level of significance. The only significant difference relates to sight, at the 5% level of significance, considering that after the visit the participants reported more visual impressions than during the visit (*research question 2*). Thus, in opposition to what would be expected, if considering the selective process of memory, there is no significant reduction in the number of sensory references six months after the visit. This result could be explained by the fact that a time elapse after the visit is important in order to tourists reflect on their experiences and add meaning to them (Ballantyne et al., 2011; Curtin, 2005; Tung & Ritchie, 2011). Moreover, visitors in loco are more eager to enjoy their limited time at the destination, not having the same possibility to be exhaustive in reporting their experiences as after the visit.

With respect to the *sensescapes* that mostly contribute to the long-term memory of tourist experiences in the countryside (*research question 3*), it is possible to note that some sensory impressions reported during the experience are not mentioned after the experience, and vice-versa. For the sense of sight, the landscape is the *sensescape* referred to most by respondents at both moments of the study. This is in line with previous studies that stress the importance of landscapes in experiencing the countryside, which is related to a romantic view of rural areas, involving natural and relaxing scenery contrasting with urban areas (Daugstad, 2008; Kastenholz et al., 2012a). The long-term recalling of natural light is interesting, since it is considered to be a unique characteristic of Portugal, which has a Mediterranean climate with sunshine throughout the year (Ministry of Economy and Innovation, 2007). Also worth noting is the fact that, while at the destination, the participants mention the existing maritime scenario and beaches, which relate to the coastal characteristics of the setting under study, but six months after the visit these *visualscapes* are not recalled. Conversely, the

mention of local people is only made by tourists after reflecting on their experiences, and it is not only reported as a *visualscape* but also as a *soundscape*. This result is in line with recent research on tourism focusing on the importance of the social dimension for positive tourist experiences that endure in the memory and contribute to the sustainability of tourism in rural areas (Jennings & Nickerson, 2006; Kastenholz et al., 2012a).

Regarding other reported *soundscapes*, “birdsong” seems to be the most frequently impression when considering both moments of the study. Also, the aural components of the wind, the sea, and the silence are referred to during and after the experience. An interesting finding is that the sea is reported as an episodic memory associated with an aural character and not as a *visualscape*, as noted above. Furthermore, the silence is a *soundscape* with considerable expression when visitors recall the rural destination, which has been previously evinced in research conducted in the countryside, revealing the appeal of silence to visitors seeking an absence of noise (Daugstad, 2008; Kastenholz et al., 2012a; Pan & Ryan, 2009).

As for *smellscapes*, “fresh air”, “plants”, and “flowers”, are the most memorable *sensescapes*, also being reported during the experience. Particularly, “fresh air”, sometimes referred to in the literature as “pure air”, is a common *sensescape* associated with the countryside and with its related health benefits (Gretzel & Fesenmaier, 2003; Kastenholz & Lima, 2011).

The most memorable gastronomic *sensescapes* pertain to “sweet”, “local food”, and “seafood”, which are mentioned at both moments of the study. Other particular *tastescapes* alluded to after the visit relate to specific food, such as “bread”, “local beverage”, “fruit”, and “cheese”. Indeed, local food is greatly appreciated by visitors to the countryside, being addressed in previous research as a sustainable attractor for rural areas, given its cultural and social dimensions (Daugstad, 2008; Everett, 2008; Kastenholz et al., 2012a; Pan & Ryan, 2009; Quan & Wang, 2004).

With respect to *touchscapes*, the impressions are essentially connected to temperatures, such as “heat”, and “coolness”. The feeling of water on the body and the diversity of textures, including the textures of sand, are memorable *sensescapes* for tourists in Southwest Portugal. Indeed, the experience of touch in tourism has been posed as very important in order to engage tourists in activities in the countryside; it is

considered as the sense that most involves action and proximity to objects and other people (Degen, 2008; Straughan, 2012).

When exploring the connection between long-term memory of *sensescapes* and destination loyalty (*research question 4*), two groups of respondents were identified with respect to the sensory experience lived in Southwest Portugal – the ones who recall more *sensescapes* than the average (“more sensory-sensitive tourists”) and the ones who recall fewer *sensescapes* than average (“less sensory-sensitive tourists”). The chi-square test for independence shows that these two groups are not dependent from previous visits to the destination under study ( $p$ -value = .141). With respect to the “less sensory-sensitive” participants, there is significant statistical evidence of the existence of differences between the behavioral intentions reported in loco and the effective behavior mentioned six months after the visit. This finding suggests, for this group of tourists, less likelihood of favorable attitudinal behavior transforming into favorable effective behavior towards the destination (with respect to both recommendation and returning to the destination). Regarding the “more sensory-sensitive” visitors, the results indicate that the differences between future behavior intentions and reported effective behavior are not significant, suggesting that the long-term memory of *sensescapes* may lead to destination loyalty. By emphasizing this finding, the analysis comparing the results of the destination loyalty measures between the two groups of participants at both moments of the study show statistical evidence that “more sensory-sensitive” tourists are more likely to return to the destination in order to participate in the same activities than the group that recalled fewer *sensescapes*. These results findings are in line with previous studies that acknowledge that richer sensory experiences increase the tourists’ level of engagement with the destination (Gretzel & Fesenmaier, 2003; Pan & Ryan, 2009; Pine & Gilmore, 1998) and that remembered experiences may be better predictors of future behavior than the experience reported in loco (Mitchell et al., 1997; Wirtz et al., 2003).

### **5.5.1 Managerial implications**

Considering that the focus of marketing and management of tourist experiences is to provide the conditions to facilitate carefully positive and memorable tourist experiences in destinations in general and in the countryside in particular, and to

increase destination loyalty, the findings of this study offer some interesting insights with managerial implications. Thus, this research reveals that richer tourist experiences in terms of *sensescapes* in the countryside could be more memorable and, as a result, contribute to favorable tourists' behavior with respect to destination loyalty.

Indeed, in order to support memory recollection, tourism planners should explore the unique *sensescapes* of rural destinations as sensory markers (Kastenholz et al., 2012; Ooi, 2005; Tung & Ritchie, 2011). This empirical study suggests that apart from the visual landscapes of the rural area of Southwest Portugal and the unique natural light characteristic of the destination, policy makers and destination marketing organizations should focus on facilitating rich sensory experiences for visitors by, for example, exploring the keynotes of the setting, such as the “birdsong”, the scents of nature, the gastronomic specialties of the region, and the opportunities to experience diverse textures with respect to local architectural details, nature, or local ingredients. These and other *sensescapes* could be wittingly emphasized by the destination, through the development of coherent communication strategies and the use of the potential of technological devices before, during and after the visit (Braun-LaTour & Latour, 2005; Gretzel & Fesenmaier 2003; Guttentag, 2010; Neuhofer et al., 2012; Tussyadiah & Fesenmaier, 2009). Particularly, hospitality firms, such as lodging, may emphasize and recreate sensory environments supporting human interactions (Dann & Jacobsen, 2003; Walls et al., 2012).

Furthermore, sensory appealing experiences in the countryside may encourage higher levels of engagement of tourists with sustainable activities in the destination and the purchase of memorabilia (Kastenholz et al., 2012a; Mossberg, 2007; Tung & Ritchie, 2011). In fact, memory performance increases when, apart from hearing words or seeing objects, individuals are engaged in an activity, which can be enriched by sensory cues (Baddeley, 1999). In this regard, this study shows that, when compared with those reporting their sensory experiences less well, the tourists who recall greater diversity of *sensescapes* have significantly more favorable effective behavior with respect to their planning to return to the destination in order to participate in the same activities. Since Lehto et al. (2004) suggest that prior experience influences future trips in terms of expenditure and activity participation, with the tendency to narrow and specialize in particular activities, specific *sensescapes* of rural settings and related activities considered to fit the sustainable goals of rural destinations could be explored.

This seems to be the case for birdwatching, hiking, trekking, or culinary activities in Southwest Portugal. In this regard, specific communication strategies especially addressed to repeat visitors could be explored with the use, for example, of specialized online newsletters and interactive approaches (Lehto et al., 2004). Moreover, richer sensory experiences lead to more coherent word of mouth about the destination to family and friends, by helping tourists to create their narratives and recollections when returning home (Crouch et al., 2004; Tung & Ritchie, 2011).

However, since novelty is also a value sought by tourists in the countryside, destinations should put efforts into creatively facilitating unexpected experiences, using sensory appealing endogenous resources, and reinventing the destination by promoting new experiences (Kastenholz et al., 2012a; Tung & Ritchie, 2011; Williams & Soutar, 2009). Synergetic strategies within the destination and with neighboring regions (Stamboulis & Skayannis, 2003) with similar or complementary *sensescapes* could be explored by, for example, exploring the potential of market niches (Morgan, 2010) or the creation of sensory itineraries addressing specific tourists' motivations, such as the case for travel journalists (Pan & Ryan, 2009) or visually impaired tourists (Richards, Pritchard, & Morgan, 2010; Small et al., 2012). In this regard, efforts to explore creatively exploring all the senses in rural environments (Cloke, 2007) and the potential of creative industries could enhance unique, appealing, and sustainable tourist experiences, encouraging the co-creation between visitors, the tourism industry, and rural communities (Binkhorst & Dekker, 2009; Jennings & Nickerson, 2006; Kastenholz et al., 2012b; Mossberg, 2007; Saxena et al., 2007).

### **5.5.2 Limitations and suggestions for future research**

Whilst this study intended to contribute exploratorily to mitigating the research gap with respect to the study of the contribution of *sensescapes* to facilitating positive and memorable tourist experiences in the countryside and their connection with destination loyalty, further research is needed in order to gain a deeper understanding of the role of the sensory dimension in tourist experiences in rural areas. Firstly, replication of the study in order to compare the present results with other research conducted in different rural areas, using larger samples, would be advisable. Secondly, it would be interesting to perform a broader study, by collecting data during the

anticipatory phase of tourist experiences in addition to the activity at the destination and the phase of recollection, in order to compare the results between these three phases of tourist experiences. This research could also explore the relationship of the sensory component with other dimensions of tourist experiences, such as the emotional or social dimensions, and their interactions in contributing to destination loyalty. Also, extending the collection of data to an all-year time period would be advised in order to analyze whether different seasons of the year correspond to tourists' perception and memory of different *sensescapes*, which could justify specific marketing strategies.

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## CHAPTER 6

### GENERAL CONCLUSION

The primary purpose of this research was to advancing the understanding of the role of *sensescapes* in tourist experiences in rural areas. On one hand, the importance of the sensory dimension for individuals' likelihood of having a positive and memorable tourist experience was explored; on the other hand, the potential of using sensory stimuli in marketing tourist experiences, particularly in rural areas, was focused. In this light, four studies were conducted. The two first studies summarize the theoretical underpinnings in the domain of the research problem and propose two conceptual frameworks. The third and fourth studies explore empirically the appropriateness of using sensory impressions as perceived by tourists in the activity of meaningfully theming tourist experiences and segmenting tourists in rural destinations, as well as the contribution of rural *sensescapes* to memorable tourist experiences and to destination loyalty, respectively. Considering research gaps identified in literature, this thesis provides some insights contributing to theory and to the marketing of tourist experiences in rural areas, with focus on Southwest Portugal, as well as to advancing recommendations informed by research limitations.

#### **6.1 Theoretical contribution**

This thesis contributes to theory by using a holistic approach to sight, hearing, smell, taste, and touch with respect to tourist experiences, particularly focusing on rural areas, under a managerial perspective and a post-positivist approach. Despite acknowledgment of a wide range of academic fields that the five external senses are crucial for human perception of the surrounding world (Goldstein, 2010; Howes, 2005; Rodaway, 1994), and in particular to consumption experiences (Gentile, Spiller, & Noci, 2007; Krishna, 2012; Pine & Gilmore, 1998; Schmitt, 1999), research addressing the sensory dimension of tourist experiences with a managerial approach is still scarce (Dann & Jacobsen, 2003; Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009).

In light of a multidisciplinary view on the senses, **study 1** adds to the conceptualization of the sensory dimension of tourist experiences, by providing the

theoretical underpinning supporting the relevance of research addressing the sensory dimension of tourist experiences. It corroborates the notion that human senses are preconditions of individual's perception of the world, and therefore sensory stimuli influence consumption experiences, as well as places and environments, such as destinations, are multi-sensorial and potentiate multi-sensory experiences (e.g., Mossberg, 2007; Pan & Ryan, 2009; Rodaway, 1994). This study offers also a review of empirical studies adopting a holistic approach to the multi-sensory dimension of the global tourist experience, by highlighting the specific senses that were addressed previously in research and the respective process of data collection, statistical methods used, and resulting managerial implications. The above mentioned studies show that multi-sensory information regarding tourist experiences seems to be important in the marketing and management of tourist experiences. Additionally, the literature review is summarized into a conceptual framework, stressing the role of sensory stimuli and sensations in the domain of external and internal factors influencing the tourist's perception of the overall tourist experience. This study identifies gaps in the literature and proposes several research topics for future research.

**Study 2** supports the importance of the sensory dimension of tourist experiences in the specific context of rural destinations experiences and proposes a conceptual framework offering some insights to future research on marketing sustainable sensory-themed tourist experiences in rural destinations. Based on the literature presented in the first study and specific literature on tourism in rural areas (e.g., Kastenholz, Carneiro, Marques, & Lima, 2012<sup>12</sup>; Lane, 1994; Roberts & Hall, 2001), this framework suggests that it is appropriate the use of mixed methods in analyzing sensory impressions as perceived by tourists, contributing to the process of meaningfully theming tourist experiences in rural destinations. This process is informed by the experiential paradigm which poses the existence of a theme as a requisite in the marketing of destination experiences (Mossberg, 2007; Pine & Gilmore, 1998). Moreover, the framework shows that sensory-based themes with respect to tourist experiences are suitable for segmenting tourists and understanding which endogenous resources are emphasized by different profiles of tourists (Gretzel & Fesenmaier, 2003, 2010; Kastenholz, Davis & Paul, 1999). It is suggested that this information could be used in future research on

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<sup>12</sup> Further references to this article in this chapter will be as follows: Kastenholz et al., 2012a.

sustainable planning of the tourist overall experience in rural destinations and on the development of communication strategies fitting desirable tourists for rural destinations (Kastenholz, Carneiro, & Marques, 2012<sup>13</sup>).

**Study 3** empirically confirms that sensory themes can be found in the articulation of different sensory impressions with respect to tourist experiences in rural destinations and that this sensory information is suitable to the process of segmenting tourists. In fact, literature stresses that since sensory stimuli underlie the provision of satisfying environments for the consumption of tourism products and services, boosting human interactions, sensory appeals could be appropriate for the creation of meaningful sensory-based themes for tourist experiences aiming to enhance destination experiences (Ellis & Rossman, 2008; Gretzel & Fesenmaier, 2003; Heide & Grønhaug, 2006; Kastenholz et al., 2012b; Mossberg, 2007; Walls, Okumus, Wang, & Kwun, 2011). Additionally, according to previous research, this study suggests that the use of mixed methods seems to be appropriate in order to capture and analyze sensory tourist experiences (Govers, Go, & Kumar, 2007; Gretzel & Fesenmaier, 2003, 2010; Pan & Ryan, 2009). The use of open-ended questions takes into account the phenomenological nature of tourist experiences, allowing to extract and to categorize sensory impressions that can be used quantitatively in multiple correspondence analysis which is adequate to identify meaningful sensory-based themes through the intersection of the sensory variables. The use of cluster analysis permits to segment tourists, matching sensory-based themes to different profiles of tourists in rural areas with respect to the activities performed in the destination and tourists' motivations (Kastenholz et al., 1999.)

**Study 4** explores the importance of the five senses for individuals' likelihood to having a positive tourist experience, during and after their visit to the countryside, the differences existing between reported sensory impressions by sensory modalities, during and after the tourists' visit to the countryside; the contribution of *sensescapes* to long-term memory of tourist experiences in the countryside, and the connection between long-term memory of *sensescapes* and destination loyalty. By using data collected during and six months after the visit, this research provides empirical findings suggesting that all the *sensescapes* play an important role in facilitating memorable

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<sup>13</sup> Further references to this article in this chapter will be as follows: Kastenholz et al., 2012b.

tourist experiences in the countryside and that there is a connection between long-term memory of *sensescapes* and destination loyalty, i.e., the long-term memory of richer sensory tourist experiences could potentiate favorable tourist behavior towards rural destinations. These findings are in line with previous research that acknowledges that sensory stimuli are important markers in the stage of tourist experiences recollection (Ooi, 2005; Tung & Ritchie), that richer sensory experiences increase tourists' level of engagement with destinations (Gretzel & Fesenmaier, 2003; Pan & Ryan, 2009; Pine & Gilmore, 1998), and that remembered experiences may be better predictors of future behavior than the experience reported in loco (Mitchell, Thompson, Peterson, & Cronk, 1997; Wirtz, Kruger, Scollon, & Diener, 2003).

## **6.2 Managerial implications**

One of the most relevant implications of this research for the marketing of tourist experiences in rural areas is the acknowledgment of the appropriateness of the use of sensory-based themes in the staging of environments in which desired tourists experiences are more likely to emerge and to contribute to the sustainability and competitiveness of rural destinations.

The correspondence of sensory-based themes to different segments of tourists suggests that specific marketing strategies can be built more efficiently to address different profiles of tourists. This process encourages the integration of the local community and the optimal use of resources in planning the overall rural destination experience, from which all the stakeholders involved benefit (Kastenholz et al., 2012b). In this light, the attempts to facilitate the emergence of memorable tourist experiences in rural areas may focus on sensory elements related to nature (e.g. local fauna and flora, natural landscape) and rural characteristics of place identity (e.g. local products, gastronomy, handicrafts, farm activities, local architecture), enabling a pleasurable aesthetic experience (Kastenholz et al., 2012a).

Since the present empirical research reveals that richer tourist experiences in terms of *sensescapes* in the countryside could be more memorable and as a result contribute to favorable tourists' behavior towards destinations, tourism planners could explore unique *sensescapes* of rural destinations as sensory markers in order to support memory recollection (Ooi, 2005; Tung & Ritchie, 2011). The planning and marketing of

sensory appealing experiences in the countryside could encourage higher engagement of tourists with sustainable activities in the destination and the purchase of memorabilia (Kastenholz, et al., 2012a; Mossberg, 2007). In fact, taking into account that memory performance increases when apart from hearing words or seeing objects, individuals are engaged in an activity (Baddeley, 1999), specific activities or workshops could be wittingly designed around sensory-based themes. For example, in Brazil, *São Paulo Turismo* developed the “Map of Sensations”, where attractions spots are described in terms of their sensory and emotional features, which were collected during a research based on residents and visitors’ recall of destination experiences. This map encourages visitors to live sensory experiences, offering a new perspective of the metropolis. The project is permanently updated due to its interactive nature, which allows visitors to share their sensory experiences in the site of the project ([www.sensationsmap.com](http://www.sensationsmap.com)).

In a view to address many tourists’ desire of living new experiences, rural destinations could use sensory appealing endogenous resources to reinventing the destination (Kastenholz et al., 2012a; Tung & Ritchie, 2011; Williams & Soutar, 2009). Synergetic strategies within the destination and with neighboring regions with similar or complementary *sensescapes* could be explored by, for example, exploring the potential of market niches (Morgan, 2010). Furthermore, sensory-based themes could be also applied in the development of sensory itineraries encouraging small regions to find niches and to brand and promote themselves cooperatively (Pan & Ryan, 2009). These sensory itineraries could be directed towards specific groups with different motives and needs, such as journalists, investors, or visually impaired visitors (Small, Darcy, & Packer, 2012), simultaneously enhancing the destination experiences of other visitors.

In summary, sensory marketing could be used to creatively stage, brand, and communicate tourist experiences in rural environments, without losing sight of conservation priorities (Kastenholz et al, 2012b), by exploring both the idea of the multi-phased nature of tourist experiences and the potential of Information Communication Technologies (Gretzel & Fesenmaier 2003; Neuhofer, Buhalis, & Ladkin, 2012). In this light, the potential of creative industries could enhance unique, appealing, and sustainable tourist experiences, encouraging the co-creation between visitors, tourism industry and rural communities (Jennings & Nickerson, 2006; Kastenholz et al., 2012b; Mossberg, 2007; Saxena, Clark, Oliver, & Ilbery, 2007).

### **6.3 Managerial implications for the Southwest Portugal region**

The empirical research conducted in this thesis is in line with the idea that individuals consume and perceive the countryside in many different ways, according to their needs and interests (Frochot, 2005), and thus reflects on specific implications for the planning and marketing of tourist experiences in Southwest Portugal. A multiple correspondence analysis suggests the existence of four sensory-based themes corresponding to four segments of tourists visiting Southwest Portugal and reporting different sensory experiences: “rural experience”, “generic beach-related experience”, “nature-based experience”, and “balanced experience”.

These specific bundles of sensory impressions seem to be somewhat stressed by the tourists’ participation in diverse activities. Thus, marketing efforts in Southwest Portugal could focus on a structured offering couched in central activities based on the rural and natural local resources, such as hiking/trekking, farm-based activities, and birdwatching, by exploring the potential of *Rota Vicentina*. Considering that Southwest Portugal is also characterized by a long coastal area and beach landscapes appropriate for surfing, surf tourism could be considered an interesting niche market contributing to local sustainable development (Buckley, 2002).

The presented empirical studies suggest that apart from the visual landscapes of Southwest Portugal and the unique natural light characteristic of the destination, policy makers and destination marketing organizations could focus on facilitating rich sensory experiences to visitors by, for example, exploring the keynotes of the setting, such as characteristic “hi-fi” *soundscape*s (Schafer, 1977), such as “birdsong” or “silence”, the scents of nature, the gastronomic specialties of the region, and the opportunities to experience diverse textures with respect to local architectural details and nature, or even the multi-sensory and social interactive-based local culinary. These and other *sensescape*s could be emphasized by the destination, through the development of coherent communication strategies and use of the potential of technological devices before, during and after the visit. Moreover, specific communication strategies especially addressed to repeat visitors could be explored with the use of specialized online newsletters and interactive approaches encouraging tourist to specialize in particular activities which are considered sustainable to the destination (Lehto, O’Leary, & Morrison, 2004). In light of the above, the destination marketing organizations

operating in Southwest Portugal should concert their efforts in order to analyze the sensory-based themes/segments that best fit the goals of the destination, considering the interests of tourists, the community, and the tourism industry.

#### **6.4 Limitations and suggestions for future research**

Considering the limitations of the present work, improvements may be recommended and research topics identified in which further investigation might be most promising.

A general limitation of this research is related to the sample size. Despite all efforts taken to ensure sample representativeness, this proved difficult due to the time and financial constraints, as well as the impossibility to be in all places of accommodation in person. In fact, a non-respondent bias must be accepted due to reliance on owners/managers of rural accommodation to distribute the questionnaires to tourists who were eligible to participate in the study. A larger sample could permit, for example, to identify more accurately differences between sensory-themes as perceived by tourists with respect to additional variables, such as activities performed in the destination and sociodemographic variables. However, taking into account the exploratory goals of the thesis, the data collected proved to be adequate for exploring the research questions in both empirical studies.

The existence of scarce empirical studies embracing a holistic approach to the sensory dimension of tourist experiences in general and in rural areas in particular proves that there are research gaps future studies should address. Hence, further research is needed in order to gain a deeper understanding of the role of the sensory dimension in tourist experiences in rural areas. Particularly, it would be interesting to compare the results of the two empirical studies conducted in Southwest Portugal with other studies performed in different rural destinations. These studies could explore whether central sensory-based themes as perceived by tourists differ among different rural destinations and the contribution of tourist experiences based on sensory-based themes to tourists' satisfaction, long-term memory, and destination loyalty, as well to the planning and marketing of a rural destination in terms of achieving the goals of local sustainable development. The replication of the empirical studies could also confirm the

appropriateness of the methodology and improve it. Additionally, the extension of the collection of data to an all-year time period would be recommended in order to analyze whether different seasons of the year correspond to tourists' different perceptions and memories of *sensescapes* with respect to their tourist experiences, which could justify differentiated marketing strategies.

An extension of this thesis could include a broader study, by collecting data during the anticipatory phase of tourist experiences in addition to the activity at the destination and the phase of recollection. The potential of research in this area embraces also the study of the relationship between the sensory component of tourist experiences and other dimensions of tourist experiences, such as the emotional or social components, as well as their interactions in contributing to destination loyalty. Finally, although experimental studies in sensory marketing reveal the influence of sensory stimuli in consumer behavior (Krishna, 2010) experimental research would be interesting in complementing the understanding of the role of human senses in tourists' responses.

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## APPENDICES

## **APPENDIX 1**

### **Sensory marketing and tourist experiences**

## **APPENDIX 2**

**The rural village as an open door to nature-based tourism in Portugal:**

**The Aldeia da Pedralva case**

## **APPENDIX 3**

### **QUESTIONNAIRE**