

KONCEPCIONÁLIS KERET- RENDSZER KIDOLGOZÁSA AZ EMBER-HELY KAPCSOLAT ÉRTELMEZÉSÉHEZ


DEVELOPING A CONCEPTUAL FRAMEWORK FOR STUDYING PEOPLE-PLACE RELATIONSHIP

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ABSZTRAKT

Ember és hely közötti kapcsolatok kutatása összetett és multidiszciplináris terület, és az idők során a különböző tudományágakban eltérő módon fejlődött. Ennek ellenére még mindig hiányoznak a földrajzi és kulturális kontextusnak az ember-hely kapcsolatokra gyakorolt hatását vizsgáló kutatások. A cikk a földrajzi helyzetnek az ezen ember-hely kapcsolatokra gyakorolt hatásának vizsgálatával kíván hozzájárulni a helyhez való kötődés koncepcionális keretrendszerének kidolgozásához a közel-keleti városok kulturális-földrajzi kontextusában. A tanulmány áttekinti a korábbi területi kutatásokat, és szisztematikusan elemzi e tanulmányok földrajzi kontextusát annak megértése érdekében, hogy az hogyan befolyásolja olyan helyalapú megközelítések koncepcionalizálását, mint például a helyérzet és a helyhez való kötődés. Az elemzés magában foglalja a korábbi tanulmányok kritikai értékelését és esettanulmány-elemzését, a tanulmányok földrajzi kontextusának, a koncepcionális keretnek, az alkalmazott módszereknek és eszközöknek, valamint az eredmények alkalmazásának összehasonlító elemzésével. Eredményeink azt mutatják, hogy a földrajzi kontextus sajátos jellemzői jelentéktelen mértékben befolyásolják e fogalmak

használatát és jelentését, és csak néhány kísérlet történt a mérési modellek érvényességének és megbízhatóságának különböző kontextusokban történő értékelésére. A tanulmány arra is rávilágít, hogy több kutatásra van szükség az ember-hely kapcsolatok kulturális-földrajzi kontextusával kapcsolatban, mivel ez segíthet jobban megérteni, hogy a földrajzi és kulturális tényezők hogyan segíthetnek teljesebb képet alkotni arról, hogy az emberek hogyan kötődnek a helyekhez, és ezek a kötődések hogyan befolyásolják viselkedésüket és jólétüket.

Kulcsszavak: helyérzet, helyhez való kötődés, operacionalizálás, koncepcionális keretrendszer, esettanulmány-elemzés 

ABSTRACT

The development of research on people-place relationships is a complex and multi-disciplinary field, and over time has evolved in different ways across different disciplines. Despite this development, research on the impact of geographical and cultural context on the conceptualization and management of people-place relationships is still lacking. The article seeks to contribute to the development of a conceptual framework for place-based constructs of attachment by investigating the impact of geographical context on the conceptualization and operationalization of people-place relationships. The study reviews previous research on spatial studies and systematically analyses the geographical context of those studies to comprehend how it affects the conceptualization and operationalization of place-based constructs such as sense of place (SOP) and place attachment (PA). The analysis includes a critical assessment and case study analysis of previous studies, with a comparative analysis of the geographical context of the study, the conceptualizing framework, the methods, and tools used, and the application of the results. Our findings show insignificant influences of the special characteristics of geographical context on the conceptualization and operationalization of these concepts, with only a few attempts to assess the validity and reliability of measurement models across different contexts. The study also highlights the need for more research on the cultural-geographical context of people-place relationships, as it provides a better understanding of how geographical and cultural factors can provide a more complete picture of how people form attachments to places and how these attachments influence their behaviour and well-being.

Keywords: sense of place, place attachment, operationalization, conceptual framework, case study analysis

INTRODUCTION

People-place relationships are a complex and multi-disciplinary field that has evolved over the years. One of the main schools of thought in people-place literature is phenomenology, which focuses on the subjective experience of place. Tuan and Relph were pioneers in this field, and their books *Topophilia* and *Place and Placelessness* are considered classics in the field, contributing to the development of key concepts and theories and providing important insights into how people interact with and understand their physical surroundings. Geography, sociology, and anthropology have all traditionally been involved in the study of people-place relationships. The focus of social sciences is on how one understands a place and one's existence in that place [1]. However, over the years, the field has grown to encompass other disciplines such

as architecture and urban planning, psychology, environmental science, and landscape architecture. Landscape architecture, urban cognition, and the image of the city are other significant aspects that facilitate the connection between people and the visual qualities and elements [2]. People-place relationships are studied in design and planning disciplines to better understand how human activities shape and are shaped by physical environments. Studies on the emotional connection between people and urban objects have revealed deep connections between social psychology, attitudes, visual perception, and presented urban objects [2]. Despite multifaceted understandings of this relationship, the disciplines of design and planning often remain focused on the physical aspects of the concept because of the spatial focus of the professions [3].

Research on people-place relationships relevant to this study has been conducted primarily in environmental psychology, architecture, planning, and geography. The two major concepts that recur in these domains are sense of place (SOP), and place attachment (PA). Sense of place, as a contemporary concept, can be derived from the field of geography, where scholars presented a holistic concept combining place attachment, place identity, and place dependence. According to [4], place attachment is made up of emotional elements (affect, feeling, emotions), cognitive elements (thoughts, knowledge, beliefs), and practices (actions and behaviour). Another concepts frequently used in literature is place identity (PI) which is defined by [5] as the part of our identity that relates to place. Studies on people-place relationships are mired in definitional questions and attempts to fit various place-related concepts together [6]. In this study, the focus is on SOP and PA as they provide a wider representation of research on people-place relationship in related fields.

Many researchers have attempted to develop a conceptual understanding of place-based concepts by reviewing earlier research in the domain and identifying niches and significant gaps. This was done due to the diversity of terminologies and approaches used to describe the relationship between people and place, as well as the topic's multi-disciplinary nature. Table 1 displays some of these reviewed papers and their key conclusions. These papers indicate that the most significant gap in the domain is the unclear relationship between place-related concepts, the heterogeneity in terms and their spatial extension [7, 8, 9, 1], and the weakness in delivering a theory due to a large literature focusing on the individual level [6, 8, 10]. Professional theories in spatial sciences have largely focused on the physical aspects of place, with few studies focusing on understanding the meaning, value, characteristics, and psychology of sense of place [2], and as [3] emphasis that this lack of a coherent understanding makes it difficult to study and consistently operationalize

Table 1: List of reviewed papers on place-based constructs of attachment. (the papers are listed in chronological order)
►► Figure 1: The different stages in screening literature
►► Table 2: The analytical aspects used in reviewing selected papers in accordance with research questions

Author	Review Focus	Main Findings
Lalli, 1992	Overview of the psychological literature on place identity in an urban context.	Measuring instrument (the 'Urban Identity Scale') as a model for operationalizing the theoretical idea.
Lewicka, 2011	Review of research in place attachment until 2010.	Emphasis on individual differences has probably inhibited the development of a theory of place attachment.
Ghasemi et al. 2014	Comprehensive literature review on place attachment dimensions.	The study determined 23 dimensions within three clusters: physical/environmental, personal, and psychological.
Beidler et al. 2015	Review of academic and professional theories regarding the development of a sense of place in design and planning disciplines until 2011.	Individual interpretations, environmental understandings, sociocultural encounters, and temporal experiences are ultimately intertwined in the transformation of space into place.
A. Hausmann et al. 2015	Identifying the potential contributions of sense of place to both human well-being and biodiversity conservation.	Conceptual framework incorporating sense of place in conservation decision-making; pathways outline potential ways to mitigate threats to biodiversity conservation.
Acedo et al. 2017	Examining sense of place and social capital in an urban context.	Conceptualizing and formalizing for the first time the spatial relationship between SOP and SC.
Kienast et al. 2018	Literature review on the development and application of place attachment in landscape science.	Proposal for a research agenda with three main pillars and proposed research methods.
Swapan et al. 2020	Theoretical and conceptual overview on how PA has featured in disaster research focusing on migration in developing countries.	The PA-MB matrix for developing countries.
Nelson et al. 2020	Use of publication data and citation data to clarify how sense of place has been defined and applied in the research domain.	SOP research evolution over time in terms of dimensions and measurement methods.
Erfani et al. 2022	Critical review of the literature on sense of place and place-based constructs of attachment, identity, and satisfaction.	This study develops a three-theme conceptual framework articulating individual-community-place interrelationships.
Duggan et al. 2023	Exploration of the environmental literature for studies that measure Sop in social-ecological contexts.	Overview of literature, the methods used, and the focus of studies; group and environment.

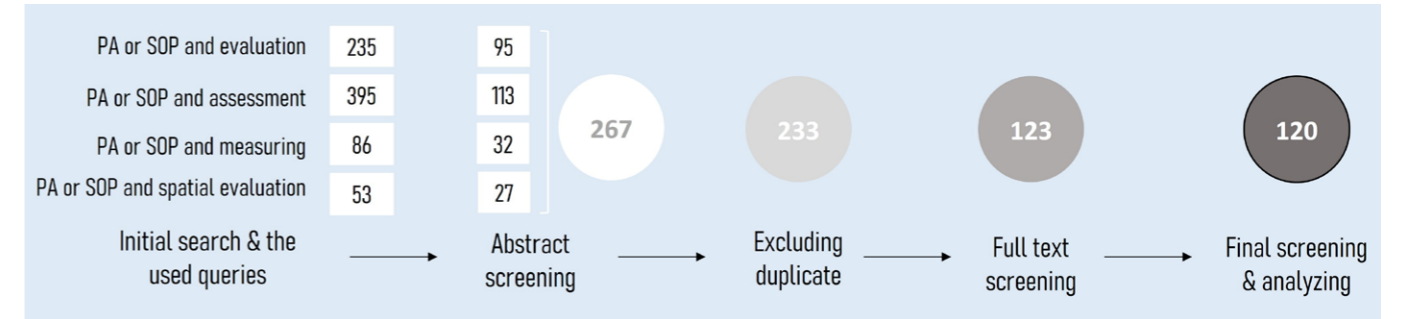
these concepts. Additionally, less attention has been paid to the concept of place concerning the specific objects or features in a place or landscape to which people are attached [11]. The attempt to develop a framework to study this relationship in a particular cultural and geographical context is more challenging due to the lack of studies on the influence of geographical and cultural context on the conceptualization and operation of people-place relationships.

The purpose of this article is to investigate the impact of geographical context on the conceptualization and operationalization of people-place relationships. By conducting a critical assessment and case study analysis of previous studies on SOP and PA in fields relevant to spatial studies it is possible to systematically review the geographical context of studies, and to understand how it affects the conceptualization and operationalization of

these concepts. The analysis seeks to provide answers to the following questions: Is there any geographical reference or significance to the conceptual frameworks? What are the methods used to study the concepts of PA and SOP, and which dimensions were considered? What is the relevance and application of operationalizing PA and SOP in a planning context?

MATERIALS & METHODS

A systematic literature review approach was adopted to gain insight into published case studies on the conceptualization and operationalization of SOP and PA. The review was conducted in the Scopus database on 7 February 2023. We chose Scopus because of its broad multidisciplinary database that focusses on traditional academic literature [12]. We looked for papers that include SOP or PA in the title/abstract/keywords. We used these terms in



Research questions	Analytical aspects
Is there any geographical reference/significance to the conceptual frameworks?	Geographical context of study
	Study location
	Scale of place
What are the methods used to study the concepts PA and SOP, and which dimensions were considered?	Context of interest
	Conceptual framework
What is the relevance and application of operationalizing PA and SOP in a planning context?	Concept used in the study
	Concept's dimensions
	Methods/ tools
	Application

search queries in our examination of people-place relationship, since these keywords are the most frequently used in planning literature and relevant disciplines [13]. To include only empirical papers on the operationalization of the concept, we added one of the following keywords to the queries: assessment, evaluation, measuring, and spatial assessment. The results of our search presented in Figure 1.

Three stages of screening were performed on the results of initial search; the first was an abstract screening to exclude papers that were not relevant to our study focus. Then, after excluding the duplicate papers, the second screening of papers was a full-text evaluation to exclude those that did not have a case study application directly focused on PA or SOP. The third evaluation of the remaining papers aimed to answer the three research questions, by conducting a comparative analysis

investigating four aspects: i) geographical context of study; ii) conceptualizing framework; iii) methods/ tools used; and iv) application of results. The analytical framework is shown in detail in Table 2.

RESULTS AND DISCUSSION

The significance of geographical context in the study of the people-place relationship

The results of this study show that more than 50% of studies on SOP and PA are from Asian and European countries, with more than half of the studies in Asia coming from China. In the Middle East, the focus of the study was on Turkey, and Iran, while Arabian countries are the least represented in this region. This distribution of studies, shown in Figure 2, aligns with findings from other research that indicates a focus of research in this field on privileged populations (the Global North) [14, 15, 16].

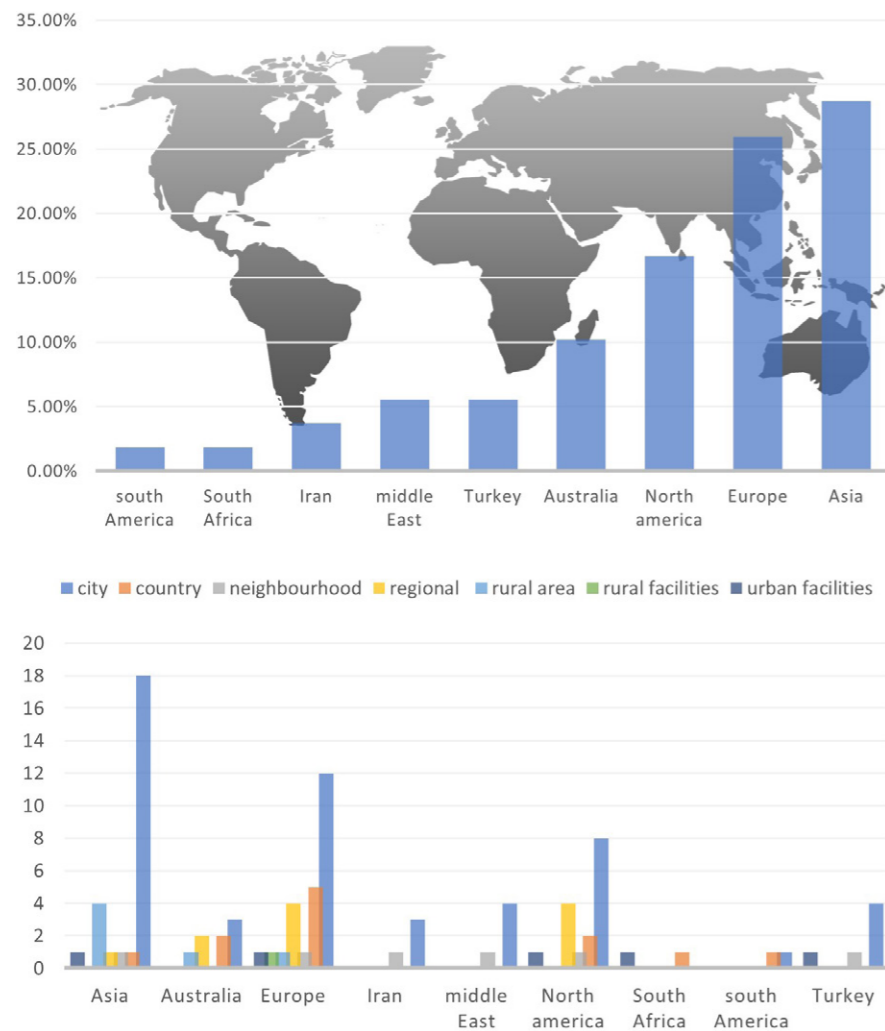


Figure 2: The geographical distribution of studies
Figure 3: The distribution of "Scale of place" according to geographical context
Figure 4: The distribution of "Type of place" according to geographical context
Figure 5: The use of SOP, PA across different geographical context
Figure 6: The conceptual frameworks used for SOP & PA in research

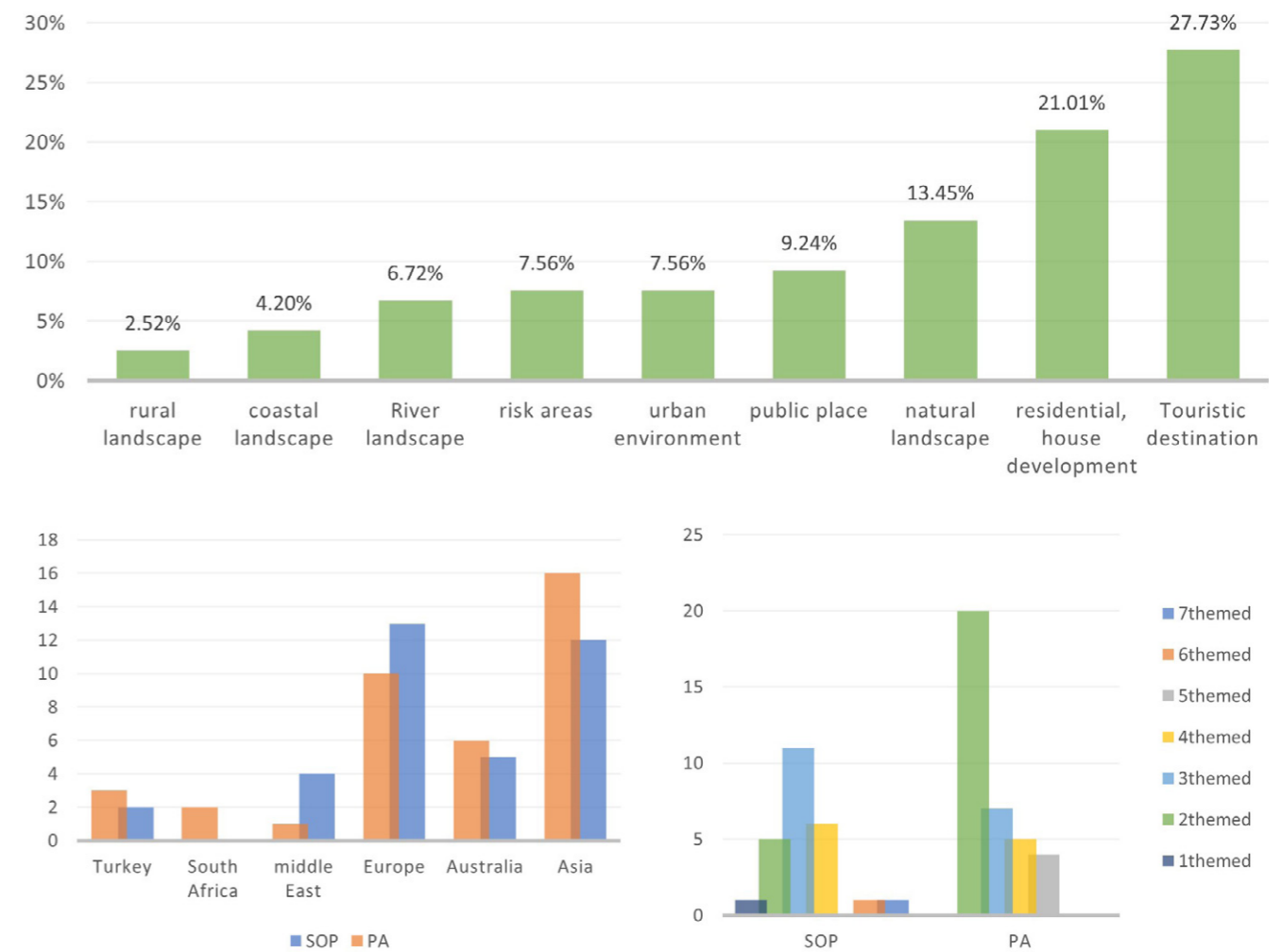
Our analysis of the scale of place, Figure 3, and type of place, Figure 4, revealed that most papers focused on the bond people form with tourist destinations, particularly in studies from China. The second trend in the literature is a focus on studying the attachment toward home and residential neighbourhoods, while bonding and attachment to natural landscape are the third most studied in the literature. According to [15], the top three research categories were environmental studies, environmental sciences, and hospitality, leisure, and sport tourism. We can see the impact of this focus on the spatial scales of studies: papers from Asia and the Middle East, where the primary focus of SOP/PA research is on tourism and residential issues, are more focused on the city level than on other levels. Studies on national and regional scales, meanwhile, only appear in Europe, America, and Australia, because of a research direction in these regions that focuses on studying SOP/PA in natural settings (parks, nature, and recreational, coastal, and river landscapes). There were significant differences in the relationships between research and the locations where studies were conducted [16]. The difficulty in grasping methodologically the concept of place and transferring it into

place-specific, formal method has made progress in "place sciences" appear slow and results meagre [17], especially when compared to theoretical developments in domains such as cognitive psychology or neuropsychology [6].

Conceptualizing the framework of people-place relationship in different contexts

Comparative analysis of the use of SOP and PA in the literature revealed no significant difference in their use across different spatial scales, types of places, or geographical locations, as shown in Figure 5. Both terms were used at similar rates in all locations, spatial scales, and contexts of interest. The findings from [16] indicate that PA has received the most attention in the literature in this field, with many concrete sub-concepts formulated around it. However, our analysis shows that PA is used more frequently than SOP in studies involving residential attachment or natural settings, but the difference is not significant. The ambiguous relationships between these concepts require further investigation [18,19].

Figure 6 shows the frameworks used to conceptualize SOP and PA, arranged in seven groups based on



the number of dimensions used in each framework (for example, 2 themed means the framework consists of two dimensions). The most relevant framework for studying SOP consists of three dimensions: PA, PI, and PD [17, 20, 21, 22, 23, 24]. Some researchers suggest that current theories regarding SOP can be organized into an overlapping four-dimensional model involving the physical environment, psychology of the self, and sociocultural circumstances [3]. PA was conceptualized in terms of two common dimensions: PI, and PD [25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37], but the importance of incorporating other dimensions such as social bonding and place memory into the measurement of place attachment is highlighted by many researchers [38]. Table 3 illustrates in more detail the various frameworks used in the reviewed papers to study SOP, PA, and other related concepts, all listed based on the number of dimensions used (themed). For example, [39] investigates four place dimensions that influence people-place connections (biophysical, psychological, sociocultural, and political-economic). [40] presents a model of a tourist's sense of place with four dimensions: natural scenery, social and cultural setting, tourism function, and affectional attachment. Meanwhile, [41] uses

seven indicators for SOP including PI, PD, nature bonding, social bonding, sense of belonging, familiarity, and social interaction. With such a diverse conceptual approach, it is still unclear which dimension has the greatest influence on the development of a sense of place for an individual or group [3]. Future research should move away from unidimensional conceptualizations of place and toward a more holistic and inclusive understanding, in order to better capture the complex reality of those relationships [16].

Operationalization of place attachment and sense of place in a planning context

There is a significant trend in research to use questionnaires to evaluate the subjective experience of SOP and PA as shown in Figure 7. Mixed methods were most frequently used to include both the quantitative and qualitative aspects of these concepts. They were most frequently used to collect data, with surveys and interviews being the most popular methods [14]. Another emerging trend in this domain is the adoption of frequently used models from the literature, such as: PA scale by Williams and Vaske [84] which was used in [25, 66], PA for

Term	Conceptual framework
Sense of Place (SOP)	2 themed: PA, PI [4,2,4,3]. PA, PD [4,4]. PI, PD [4,5].
	3 themed: PA, PI, PD [17, 20, 21, 22, 23, 24]. Identity, structure, meaning [4,6]. Form, activity, meaning [4,7]. place characteristics, responses to place, PA [4,8]. personal, psychological, spatial [4,9]. attachment, identity or symbolic meaning [50].
	4 themed: biophysical, psychological, sociocultural, and political-economic [39]. belonging to a place, commitment to a place, affection for a place, and identifying with a place [51]. Identity, emotional, symbolic, functional [52]. Cognitive, phenomenological, self-concept (or anthropological) and sociological [53]. 'Polarity', dimensions, components, and 'directness' [54]. Natural scenery, social cultural setting, tourism function, and affectional attachment [4,0].
	7 themed: PI,PD, 'nature bonding', 'social bonding', 'sense of belonging', 'familiarity' and 'social interaction' [4,1].
Place Attachment (PA)	2 themed: PI, PD [25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37]. PI, place memory [55]. continuous local interactions (socialization) and subjective perceptions of place utilities (evaluation) [56]. Physical rootedness, social bonding [57]. Functional and emotional [58, 59, 60, 61]. Preferred place of residence. Emotional attachment, desire to stay [6,2].
	3 themed: PI, PD, PS [6,3]. PI, PD, social bonding [64, 65]. PI, PD, loyalty [66]. Place, people, process [6,7]. Form, meanings, experiences [6,8]. Person, community, environment [6,9].
	4 themed: PI, PD, social bonding, nature bonding [70]. PI, PD, place affect, place social bonding [71]. PI, PD, social bonding, narrative bonding [72]. Meaning of life, dependency, feeling "in place," continuity, and social inclusion [73]. Physical, social, temporal, and psychological [74].
	5 themed: PI, PD, PS, place affect, place social bonding [75, 76]. PI, PD, affective bonding, rootedness, and home meaning [77]. Evaluation, familiarity, attachment, continuity, commitment [78].
Place Identity (PI)	5 themed: Planning process, governmental process, semantic process, time [79].
Identity related concepts	4 themed: Natural heritage, economic heritage, cultural heritage, population society [80]. Physical appearance, social interaction, sensory experience and historical character [81]. Cognition, evaluation, attachment, activities [82].

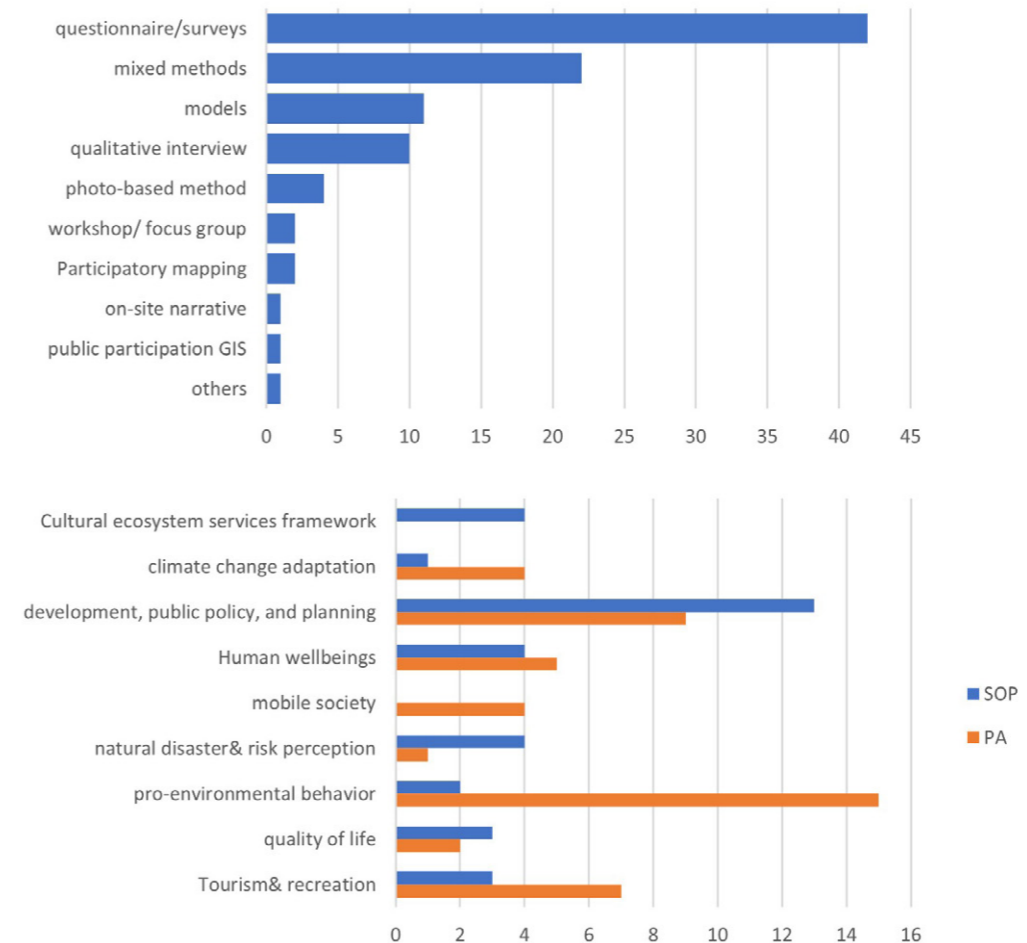
Community-Dwelling Older Adults (PACOA) scale [73], the Fuzzy Analytic Network Process (FANP) model [69], the Place Attachment Scale by Lewicka [6], the Urban Identity Scale of Lalli [7], and the Abbreviated PA Scale (APAS) [31]. Photo-based methods are also becoming more popular in this field, including photo elicitation [67], the photo projective method [85], and photo-based questionnaire [36]. This narrative tool has shown remarkable results in eliciting people's bonding, memory, and attachment to place [86], but it is still not very common in the literature, given the difficulties in analysing and coding the results on a larger scale. Participatory mapping and PPGIS are rarely used alone, but rather in conjunction with social studies to ensure that both the functional and emotional aspects of this relationship are included [87, 88]. Different methods of measuring basic theoretical constructs are rarely confronted in a single study, which make knowledge

accumulation difficult [6]. Therefore, cooperation and analysis involving multiple disciplines, specialties, and perspectives will become the dominant trend in this field [16].

The relevance and application of results in a planning context

The application of the empirical studies on SOP and PA, as shown in Figure 8, is mostly linked to public policy, pro-environmental behaviour, and human well-being, which together make up more than 50% of the results. Tourism and recreation, as well as climate change adaptation, have also been well represented in studies. According to findings from the literature, the four research trending topics in this domain were climate change, pro-environmental behaviour, tourism, and environmental threat [15]. SOP can be a vehicle for understanding people's attitudes toward their environment, which

◀◀Table 3: Conceptual models for place-based concepts of attachment in the analyzed papers
Figure 7: The methods used in literature to evaluate SOP/ PA
Figure 8: The application domains for SOP and PA research

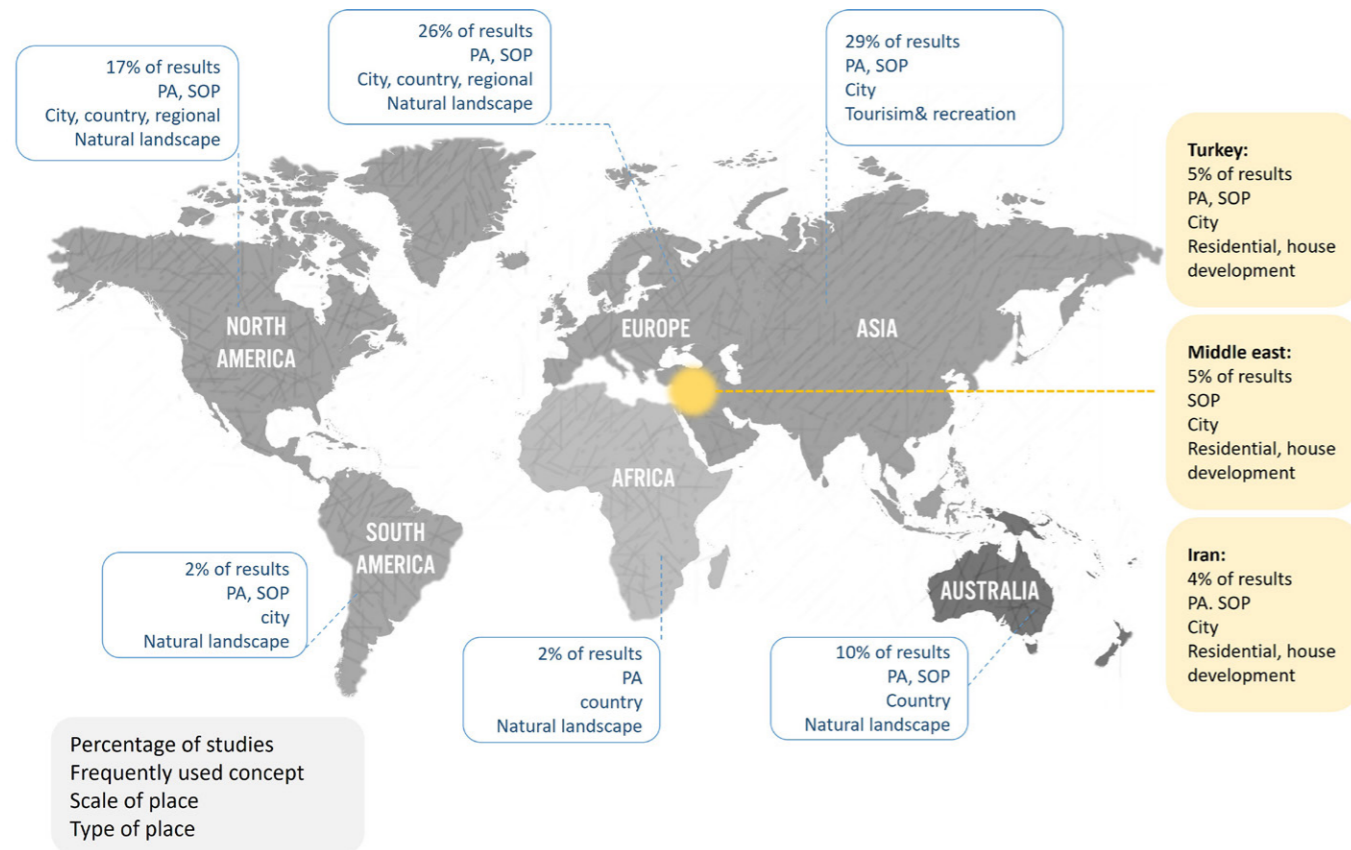


makes SOP a valuable area for studying tourist and travel behaviour [51]. In addition, SOP is a guiding principle in the design of the built environment for sustainability and liveability [1]. According to [89], the results of the qualitative analysis revealed that most of the studies provided empirical evidence of a significant relationship between PA and willingness to pay, loyalty, risk-coping behaviour, land management practices, civic engagement, pro-environmental behaviours, and pro-tourism behaviours such as intentions to revisit or recommend. Findings from [90] demonstrate that understanding people's SOP towards peri-urban green spaces is crucial for promoting place-conscious behaviour and, consequently, prioritizing effective policy responses to ensure the sustainable future of these areas. In relation to tourism, [40] it has been emphasised that travel and sightseeing are significant ways of perceiving and understanding environments, and

a tourist's SOP is the outcome of an interaction between the tourist and the destination environment.

Another area of study is the application of measuring SOP/PA in mobile societies, the migration process, and the international community. According to [6], despite mobility and globalization processes, the place continues to be an object of strong attachments. [91] indicates that the increased mobility of people, if anything, generates more places to feel attached to, rather than no attachment to any place. Disaster research and risk perception are two other areas where these concepts can be applied. [92] finds that those who are strongly attached to their place of residence are unlikely to leave even when the risk is high. This is especially true when place attachment is linked to religious beliefs and social capital is high. PA can be a potential parameter influencing an individual's risk perception and coping strategies in areas facing natural

Figure 9: The significance of the conceptualization and operationalization of SOP and PA research across different geographical contexts



hazards. Nevertheless, while PA has several collective benefits and improves one's quality of life, it can be dysfunctional if it reduces the perceived risk of hazards [92].

The geographical significance of studies

The main idea behind studying SOP, PA, and related concepts is that people have emotional and psychological connections to specific places, influenced by factors such as personal experiences, cultural and historical associations, and physical characteristics. However, the influence of special attributes of the cultural and geographical context of studies is still largely overlooked in the literature. Our study findings, summarized in Figure 9, show a significant difference in the geographical distribution of studies and the less significant influence of the geographical context on the conceptualization and operationalization of these concepts. We highlighted the results related to the Middle East since this research is part of a wider project which involves studying these concepts in a Middle Eastern context. Among the selected studies, only a few demonstrated attempts to study SOP and PA within different cultural environments and compare the results. Some

of these attempts included assessing the validity and reliability of the PA model across varying sites from USE and Germany [25]; mapping SOP in river landscapes across a set of case studies from diverse geographical, institutional, and policy contexts [83]; testing the scales, as they are currently applied, might not measure the same conceptualizations in various contexts. Because of this, their use without critical examination and modification to the special geographical and cultural context could result in inaccurate interpretations of these concepts, and lead to misapplied actions. Overall, the study emphasizes the importance of considering both geographical and cultural factors when studying people's relationships with place. By doing so, researchers can gain a more comprehensive understanding of how SOP and PA are formed and how they impact individuals' lives, and thus their implications for urban planning, environmental conservation, and community development. ©



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- Hu Ming – Chen Roger (2018): A Framework for Understanding Sense of Place in an Urban Design Context. *Urban Science*, 2(2) 34, 1-19. DOI: <https://doi.org/10.3390/urbansci2020034>
- Ghasemi Mohammad Mir – Lamit Hasanuddin – Shafaghat Arezou (2014): The Association between Riverscape and Place Attachment in Historical Cities in Malaysia. *Jurnal Teknologi*, 70(7), 147-154. DOI: <https://doi.org/10.11113/JTV70.3603>
- Beidler Kyle J. – Morrison Julia M. (2016): Sense of place: inquiry and application. *Journal of Urbanism: International Research on Place making and Urban Sustainability*, 9(3), 205 – 215. DOI: <https://doi.org/10.1080/17549175.2015.1056210>
- Jorgensen Bradley – Stedman Richard (2001): Sense of Place as an attitude: Lakeshore owners attitudes toward their properties. *Journal of Environmental Psychology*, 21(3), 233-248. DOI: <http://dx.doi.org/10.1006/jevp.2001.0226>
- Low SETHA M. – Altman IRWIN (1992): Place attachment: A conceptual inquiry. In: Altman, Irwin – Wohlwill, Joahim (ed.): *Human Behaviour and Environment: Advances in Theory and Research (12)*, Springer pp. 1-12. DOI: 10.1007/978-1-4684-8753-4_1
- Lewicka Maria (2011): Place attachment: How far have we come in the last 40 years? *Journal of Environmental Psychology*, 31(3), 207-230. DOI: <https://doi.org/10.1016/j.jenvp.2010.10.001>
- Lalli Marco (1992): Urban-related identity: Theory, measurement, and empirical findings. *Journal of Environmental Psychology*, 12(4), 285-303. DOI: <https://doi.org/10.1016/S0272-4944%2805%2980078-7>
- Kienast Felix – Buchecker Matthias – Hunziker Marcel (2018): Generating meaningful landscapes for globalized mobile societies: pushing an international research agenda. *Landscape Ecology*, (33), 1669-1677. DOI: <https://doi.org/10.1007/s10980-018-0696-y>
- Gür Elmira Ayşe – Heidari Nasim (2019): Challenge of identity in the urban transformation process: The case of Celiktepe, Istanbul. *A/Z. ITU Journal of Faculty of Architecture*, 16(1), 127-144. DOI: <https://doi.org/10.5505/ituja.2019.47123>
- Erfani Goran (2022): Reconceptualising Sense of Place: Towards a Conceptual Framework for Investigating Individual-Community-Place Inter-relationships. *Journal of Planning Literature*, 37(3), 452-466. DOI: <https://doi.org/10.1177/08854122221081109>
- Wartmann Flurina M. – Purves Ross S. (2018): Investigating sense of place as a cultural ecosystem service in different landscapes through the lens of language. *Landscape and Urban Planning*, (175) 169-183. DOI: <https://doi.org/10.1016/j.landurbplan.2018.03.021>
- Gusenbauer Michael – Haddaway Neal R. (2020): Which academic search systems are suitable for systematic reviews or meta-analyses? Evaluating retrieval qualities of Google Scholar, PubMed, and 26 other resources. *Research Synthesis Methods*, 11(2) 181-217. DOI: <https://doi.org/10.1002/jrsm.1378>
- Jake Nelson – Jeong Joo Ahn – Elizabeth A. Corley (2020): Sense of place: trends from the literature. *Journal of Urbanism: International Research on Place making and Urban Sustainability*, 13(2) 236-261, DOI: <https://doi.org/10.1080/17549175.2020.1726799>
- Joe Duggan – Christopher Cvitanovic – Ingrid van Putten (2023): Measuring sense of place in social-ecological systems: a review of literature and future research needs. *Ecosystems and People*, 19(1) 2162968 1-17. DOI: <https://doi.org/10.1080/26395916.2022.2162968>
- Feng Xueli – Zhang Zhibin – Chen Xianfei (2022): Paper Analysis of the Relevance of Place Attachment to Environment-Related Behaviour: A Systematic Literature Review. *Sustainability*, 14(23):16073. DOI: <https://doi.org/10.3390/su142316073>
- Emily Nicolosi – Julia B. Corbett (2018): Engagement with climate change and the environment: a review of the role of relationships to place. *Local Environment*, 23(1), 77-99, DOI: <https://doi.org/10.1080/13549839.2017.1385002>
- Westerholt René – Acedo Albert – Naranjo-Zolotov Mijail (2022): Exploring sense of place in relation to urban facilities – evidence from Lisbon. *Cities*, (127), 103750. DOI: <https://doi.org/10.1016/j.cities.2022.103750>
- Morgan Paul (2010): Towards a Developmental Theory of Place Attachment. *Journal of Environmental Psychology*, 30(1), 11-22. DOI: <http://dx.doi.org/10.1016/j.jenvp.2009.07.001>
- Scannell Leila – Gifford Robert (2010): Defining Place Attachment: A Tripartite Organizing Framework. *Journal of Environmental Psychology*, 30(1), 1-10. DOI: <http://dx.doi.org/10.1016/j.jenvp.2009.09.006>
- Xu Dingde – Chen Qing – Xin Deng – Zhuolin Yong – Wenfeng Zhou – Zhixing Ma (2020): Disaster Risk Perception, Sense of Pace, Evacuation Willingness, and Relocation Willingness of Rural Households in Earthquake-Stricken Areas: Evidence from Sichuan Province, China. *International Journal of Environmental Research and Public Health*, 17(2) 602. DOI: <https://doi.org/10.3390/ijerph17020602>
- Counted Victor (2019): Sense of Place Attitudes and Quality of Life Outcomes among African Residents in a Multicultural Australian Society. *Journal of Community Psychology*, 47(2), 338-355. DOI: <https://doi.org/10.1002/jcop.22124>
- Christiaanse Suzan – Haartsen Tialda (2017): The influence of symbolic and emotional meanings of rural facilities on reactions to closure: The case of the village supermarket. *Journal of Rural Studies*, (54), 326-336. DOI: <https://doi.org/10.1016/j.jrurstud.2017.07.005>
- Knaps Falco – Gottwald Sarah – Christian Albert – Herrmann Sylvia (2022): Using meaningful places as an indicator for sense of place in the management of social-ecological systems. *Ecology and Society*, 27(4). 1-12. DOI: <https://doi.org/10.5751/es-13340-270409>
- Gallina Melissa – Williams Allison (2015): Variations in Sense of Place Across Immigrant Status and Gender in Hamilton, Ontario; Saskatoon, Saskatchewan; and, Charlottetown, Prince Edward Island, Canada. *Social Indicator Research*, (121), 241-252. DOI: <https://doi.org/10.1007/s11205-014-0636-4>
- Wynveen Christopher J. – Schneider Ingrid E. – Cottrell Stuart – Arnberger Arne – Schlueter Alexander C. – von Ruschkowski Eick (2017): Comparing the Validity and Reliability of Place Attachment Across Cultures. *Society & Natural Resources*, 30(11), 1389 – 1403. DOI: <https://doi.org/10.1080/08941920.2017.1295499>
- Budruk Megha – Wilhelm Stanis Sonja – Schneider Ingrid – Heisey Jennifer (2008): Crowding and Experience-Use History: A Study of the Moderating Effect of Place Attachment Among Water-Based Recreationists. *Environmental Management*, (41), 528-37. DOI: <https://doi.org/10.1007/s00267-007-9059-1>
- White Dave D. – Virden Randy J. – Ripper Carena J. (2008): Effects of Place Identity, Place Dependence, and Experience-Use History on Perceptions of Recreation Impacts in a Natural Setting. *Environmental Management*, (42), 647-657. DOI: <https://doi.org/10.1007/s00267-008-9143-1>
- Sthapit Eroze – Björk Peter – Coudounaris Dafnis N. (2017): Emotions elicited by local food consumption, memories, place attachment and behavioural intentions. *Anatolia*, 28(3), 363 – 380. DOI: <https://doi.org/10.1080/13032917.2017.1322111>
- Xu Guoliang – Liu Yu – Huang Xianjin – Xu Yuting – Wan Chunyan – Zhou Yan (2021): How does resettlement policy affect the place attachment of resettled farmers? *Land Use Policy*, (107), 105476. DOI: <https://doi.org/10.1016/j.landusepol.2021.105476>
- Brown Greg – Raymond Christopher M. – Corcoran Jonathan (2015): Mapping and measuring place attachment. *Applied Geography*, (57), 42-53. DOI: <https://doi.org/10.1016/j.apgeog.2014.12.011>

- 31** Boley B. Bynum – Strzelecka Marianna – Yeager Emily – Ribeiro Manuel – Aleshin-loye Kayode – Woosnam Kyle – Mimbs Ben (2021): Measuring Place Attachment with the Abbreviated Place Attachment Scale (APAS). *Journal of Environmental Psychology*, 74(4) 101577. DOI: <https://doi.org/10.1016/j.jenvp.2021.101577>
- 32** Chang Jiang – Lin Zihan – Vojnovic Igor – Qi Jiaguo – Wu Rong – Xie Dixiang (2023): Social environments still matter: The role of physical and social environments in place attachment in a transitional city, Guangzhou, China. *Landscape and Urban Planning*, 232(10)4680. DOI: <https://doi.org/10.1016/j.landurbplan.2022.104680>
- 33** Wynveen Christopher J. – Schneider Ingrid E. – Arnberger Arne (2018): The Context of Place: Issues Measuring Place Attachment across Urban Forest Contexts. *Journal of Forestry*, 116(4), 367–373. DOI: <https://doi.org/10.1093/fofore/fvy001>
- 34** Özkan Doruk Görkem – Yılmaz Serap (2019): The effects of physical and social attributes of place on place attachment. *Archnet-IJAR: International Journal of Architectural Research*, 13(1):133–150. DOI: <https://doi.org/10.1108/ARCH-11-2018-0010>
- 35** Eder Renate – Arnberger Arne (2012): The Influence of Place Attachment and Experience Use History on Perceived Depreciative Visitor Behavior and Crowding in an Urban National Park. *Environmental Management*, 50(5), 566–580. DOI: <https://doi.org/10.1007/s00267-012-9912-8>
- 36** Price Shantel – Blacketer Michael – Brownlee Matthew (2018): The influence of place attachment on campers' evaluations of ecological impacts due to recreation use. *Journal of outdoor recreation and tourism*, 2(1), 30–38. DOI: <https://doi.org/10.1016/j.JORT.2017.11.001>
- 37** Bukvic Anamaria – Whittemore Aaron – Gonzales Jack – Wilhelmi Olga (2022): Understanding relocation in flood-prone coastal communities through the lens of place attachment. *Applied Geography*, 146(1), 102758. DOI: <https://doi.org/10.1016/j.apgeog.2022.102758>
- 38** Giuliani Maria Vittoria (2003): Theory of Attachment and Place Attachment. In: Bonnes Mirilia – Lee Terence – Bonaiuto Marino (ed.): *Psychological theories for environmental issues*, Aldershot, chapter 5, pp.137–170. ISBN 978-0754618881
- 39** Ardoin Nicole M. – Schuh Janel S. – Gould Rachelle K. (2012): Exploring the dimensions of place: a confirmatory factor analysis of data from three Eco regional sites. *Environmental Education Research*, 18(5), 583–607. DOI: <https://doi.org/10.1080/13504622.2011.640930>
- 40** Tang Wenyue – Zhang Jie – Luo Hao – Yang Xiaozhong – Li Dongjie (2007): The characteristics of natural scenery sightseers' sense of place: A case study of Jiuzhaigou, Sichuan. *Acta Geographica Sinica*, 62(6), 599–608. DOI: <https://doi.org/10.11821/xb200706005>
- 41** Gokce Duygu – Chen Fei (2020): Multimodal and scale-sensitive assessment of sense of place in residential areas of Ankara, Turkey. *Journal of Housing and the Built Environment*, 36(1) 1077–1101 (2021). DOI: <https://doi.org/10.1007/s10901-020-09798-6>
- 42** Gottwald Sarah – Albert Christian – Fagerholm Nora (2021): Combining sense of place theory with the ecosystem services concept: empirical insights and reflections from a participatory mapping study. *Landscape Ecology*, 37(7), 633–655. DOI: <https://doi.org/10.1007/s10980-021-01362-z>
- 43** Li Jing – Dai Guangquan – Tang Jinwen – Chen Ying (2020): Conceptualizing Festival Attractiveness and Its Impact on Festival Hosting Destination Loyalty: A Mixed Method Approach. *Sustainability*, 12(8), 3082. DOI: <https://doi.org/10.3390/su12083082>
- 44** Akcali Seyda – Arzu Cahantimur (2022): The Pentagon Model of Urban Social Sustainability: An Assessment of Socio-spatial Aspects, Comparing Two Neighbourhoods. *Sustainability*, 14(9), 4990. DOI: <https://doi.org/10.3390/su14094990>
- 45** Hong Fang – Huang Xiao Hui – Shu Xi (2009): Tourist Cognition of Sense of Place in Tourism Attractions. *Acta Geographica Sinica*, 64(10), 1267–1277. DOI: <https://doi.org/10.11821/xb200910012>
- 46** Shummadtayar Umpiga – Hokao Kazunori – Iamtrakul Pawinee (2012): Applying the images city value to improve the identity of Wualai's lowland community in Thailand. *Lowland Technology International*, 1(4), 1–11.
- 47** Nugroho Setyo – Junyi Zhang (2022): Explorations of Young People's Sense of Place Using Urban Design Qualities in Surabaya, Indonesia. *Sustainability*, 14(1), 472. 1–27. DOI: <https://doi.org/10.3390/su14010472>
- 48** Lin Chia Chin – Lockwood Michael (2014): Assessing sense of place in natural settings: A mixed-method approach. *Journal of Environmental Planning and Management*, 57(10) 1441–1464. DOI: <https://doi.org/10.1080/09640568.2013.811401>
- 49** Zabetian Targhi Elham (2019): Comparative evaluation of relationship between psychological adaptations to reach thermal comfort and sense of place in urban spaces. *Urban Climate*, 29(1) 100483. DOI: <https://doi.org/10.1016/j.uclim.2019.100483>
- 50** Hausmann Anna – Slotow Rob – Burns Jonathan K. – Minin Enrico Di. (2016): The ecosystem service of sense of place: Benefits for human well-being and biodiversity conservation. *Environmental Conservation*, 43(2), 117–127. DOI: <https://doi.org/10.1017/S0376892915000314>
- 51** Stephen Smith (2015): A sense of place: place, culture, and tourism. *Tourism Recreation Research*, 40(2), 220–233. DOI: <https://doi.org/10.1080/02508281.2015.1049814>
- 52** Bousquet François – Rocle François – Rey-Valette Hélène – Meur-Férec Catherine – Vye Didier – Lautrédou Audouy Nicole – Amalric Marion – Blanchet Lucile – Lyser Sandrine – Blondy Caroline – Becu Nicolas (2021): Interdisciplinary exploration of the links between sense of place and individual concern. The case of river and coastal risks in metropolitan France. *Natures Sciences Sociétés*, 29(2), 141–158. DOI: <https://doi.org/10.1051/nss/2021038>
- 53** Magee Liam – Handmer John – Neale Timothy – Ladds Monique (2016): Locating the intangible: Integrating a sense of place into cost estimations of natural disasters. *Geoforum*, 77(7), 61–72. DOI: <https://doi.org/10.1016/j.geoforum.2016.09.018>
- 54** Shamai Shmuel – Ilatov Zinaida (2005): Measuring Sense of Place: Methodological Aspects. *Tijdschrift voor Economische en Sociale Geografie*, 96(5), 467–476. DOI: <https://doi.org/10.1111/j.1467-9663.2005.00479.x>
- 55** Zahid Armaghan – Misrihsoy Damla (2021): Measuring place attachment, identity, and memory in urban spaces: case of the walled city of Lahore, Pakistan. *Journal of architecture and urbanism*, 45(2), 171–182. DOI: <https://doi.org/10.3846/jau.2021.15183>
- 56** Lena Greinke – Linda Lange (2022): multi-locality in rural areas – an underestimated phenomenon. *Regional Studies*, 9(1), 67–81. DOI: <https://doi.org/10.1080/21681376.2021.2025417>
- 57** Kamalipour Hesam – Yeganeh Armin Jeddi – Alalhassabi Mehran (2012): Predictors of Place Attachment in Urban Residential Environments: A Residential Complex Case Study. *Procedia – Social and Behavioral Sciences*, 35(5), 459–467. DOI: <https://doi.org/10.1016/j.SBSPRO.2012.02.111>
- 58** Karsono Bambang – Deni Deni – Azmah Fithri Cut Azmah (2016): Assessment of functional and emotional attachment in malacca riverfront promenade. *Jurnal Teknologi*, 78(5). 153–157. DOI: <https://doi.org/10.11113/jt.v78.8271>
- 59** Karsono Bambang – Goh Nurakmal – Koesmeri Dona – Gregory Zayn Al-Abideen – Samat Yon (2018): Functional Attachment in Kuching Riverfront Promenade, Sarawak – Malaysia. In: Karsono Bambang et al (ed) IOP Conference Series: Materials Science and Engineering. 401. 1–6. DOI: <https://doi.org/10.1088/1757-899X/2F401%2F1%2F012013>
- 60** Alves Roberta Borghetti – Kuhnen Ariane – Erat Jacksiani (2016): Home attachment in risk areas: Exploratory study in Itajaí Valley. In: Deanna Romero (ed): *Natural Disasters: Risk Assessment, Management Strategies and Challenges*, chapter 8, 117–128, ISBN: 978-1-53610-097-6
- 61** Widya Amelia – Kusuma Hanson Endra – Lubis Rizal (2019): The Correlational Relationship between Residential Satisfaction, Place Attachment, and Intention to Move: A Preliminary Study in Belawan, Medan. *Journal of Regional and City Planning*, 30(3), 191–210. DOI: <https://doi.org/10.5614/jpwk.2019.30.3.2>
- 62** Sawada Shigenobu – Toyosato Takehiko (2021): The moderating effect of place attachment on the relationship between economic status and well-being among the older adults in Japan. *Geriatric nursing*, 42(3), 721–726. DOI: <https://doi.org/10.1016/j.gerinurse.2021.03.003>
- 63** Zhang Carol Xiaoyue – Fong Lawrence Hoc Nang – Li ShiNa (2019): Co-creation experience and place attachment: Festival evaluation. *International Journal of Hospitality Management*, 81(1), 193–204. DOI: <https://doi.org/10.1016/J.IJHM.2019.04.013>
- 64** Gerard Kyle – Alan Graefe – Robert Manning – James Bacon (2004): Effect of Activity Involvement and Place Attachment on Recreationists' Perceptions of Setting Density. *Journal of Leisure Research*, 36(2), 209–231. DOI: <https://doi.org/10.1080/0022216.2004.11950020>
- 65** Lee Jenny – Kyle Gerard – Scott David (2012): The Mediating Effect of Place Attachment on the Relationship between Festival Satisfaction and Loyalty to the Festival Hosting Destination. *Journal of Travel Research*, 51(6), 754–767. DOI: <https://doi.org/10.1177/0047287512437859>
- 66** Yüksel Atıla – Yüksel Fisun – Bilim Yasin (2010): Destination attachment: Effects on customer satisfaction and cognitive, affective, and conative loyalty. *Tourism Management*, 31(2), 274–284. DOI: <https://doi.org/10.1016/J.TOURMAN.2009.03.007>
- 67** O'Neill Saffron J. – Graham Sonia (2016): (En)visioning placebased adaptation to sea level rise. *Geo: Geography and Environment*, 3(2), e00028. DOI: <https://doi.org/10.1002/GEO2.28>
- 68** Zhu Xiaoyang – Chiou Shang-Chia (2022): A Study on the Sustainable Development of Historic District Landscapes Based on Place Attachment among Tourists: A Case Study of Taiping Old Street, Taiwan. *Sustainability*, 14(18) 11755. DOI: <https://doi.org/10.3390/su141811755>
- 69** Lu Chi-Fang – Lin Ling-Zhong – Yeh Huery-Ren (2018): Exploring the linkage effects of place attachment in rural areas using the fuzzy analytic network process. *Journal of Travel & Tourism Marketing*, 35(4), 461 – 478. DOI: <https://doi.org/10.1080/10548408.2017.1363682>
- 70** Dasgupta Rajarshi – Basu Mrityika – Hashimoto Shizuka – Estoque Ronald – Kumar Pankaj – Johnson Brian – Mitra Bijon – Mitra Priyanka. (2021): Residents' place attachment to urban green spaces in Greater Tokyo region: An empirical assessment of dimensionality and influencing socio-demographic factors. *Urban Forestry & Urban Greening*, 67(7), 127438. DOI: <https://doi.org/10.1016/j.ufug.2021.127438>
- 71** Douglas Anneli – Wessels Jan-Albert – Pope Jenny – Morrison Saunders Angus – Hughes Mike (2019): Measuring Kruger visitors' place attachment to specific camps. *KOEDOE – African Protected Area Conservation and Science*. 61(1). DOI: <https://doi.org/10.4102/koedoe.v61i1.1559>
- 72** Verbrugge Laura – van den Born Riyan (2018): The role of place attachment in public perceptions of a re-landscaping intervention in the river Waal (The Netherlands). *Landscape and Urban Planning*, 117(1), 241–250. DOI: <https://doi.org/10.1016/J.LANDURBPLAN.2018.05.011>
- 73** Cheng Shun-Ping – I-Tsai Tzu – Chen I-Ju. (2020): Development and Psychometric Evaluation of the Place Attachment for Community-Dwelling Older Adults Scale. *Journal of Applied Gerontology*, 40(6), 620–628. DOI: <https://doi.org/10.1177/0733464820907781>
- 74** Burholt Vanessa (2012): The Dimensionality of 'Place Attachment' for Older People in Rural Areas of Southwest England and Wales. *Environment and Planning A: Economy and Space*, 44(12), 2901–2921. DOI: <https://doi.org/10.1068/a4543>
- 75** Lee Yung-Jaan – Lin Shih-Ying (2021): Effects of Perceptions of Climate Change and Flood Risk on Coping Behavior: A Case Study of Taipei, Taiwan. *Sustainability*, 14(1) 289, 1–21. DOI: <https://doi.org/10.3390/su14010289>
- 76** Ramkissoon Haywantee – Mavondo Felix T. (2015): The satisfaction–place attachment relationship: Potential mediators and moderators. *Journal of Business Research*, 68(12), 2593–2602. DOI: <https://doi.org/10.1016/J.JBUSRES.2015.05.002>
- 77** Byungsook Choi – Jung-a Park – Hyun-Jeong Lee (2016): The Development of a Measurement Method for Place Attachment and its Verification with a Housing Satisfaction Measure: A Survey of University Students About Their Homes. *Journal of Asian Architecture and Building Engineering*, 15(2), 193–200. DOI: <https://doi.org/10.3130/jaabe.15.193>
- 78** Kaba Bahar (2018): Measuring neighborhood attachment and urban-related identity among residents of gated communities: A case study in Mavişehir. *European Journal of Geography*, 9(2), 66–80. ISSN 1792-1341.
- 79** Polat Sibel – Dostoglu Neslihan (2016): Measuring place identity in public open spaces. Proceedings of the Institution of Civil Engineers. *Urban Design and Planning*, 170(5) 217–230. DOI: <https://doi.org/10.1680/JURDP.15.00031>
- 80** Oliveira José – Roca Zoran – Leitão Nuno (2010): Territorial identity and development: From topophilia to terraphilia. *Land Use Policy*, 27(3), 801–814. DOI: <https://doi.org/10.1016/j.landusepol.2009.10.014>
- 81** Shao Yuhan – Liu Binyi (2017): Place Attachment Assessment System in Contemporary Urbanism. *Procedia Engineering*, 198(1), 152–168. DOI: <https://doi.org/10.1016/j.proeng.2017.07.079>
- 82** Smith Rebecca L. (1985): Activism and social status as determinants of neighborhood identity. *The Professional Geographer*, 37(7), 421–432. DOI: <https://doi.org/10.1111/j.0033-0124.1985.00421.X>
- 83** Verbrugge Laura – Buchecker Matthias – Garcia Xavier – Gottwald Sarah – Müller Stefanie – Præstholm Søren – Olafsson Anton Stahl (2019): Integrating sense of place in planning and management of multifunctional river landscapes: experiences from five European case studies. *Sustainability Science*, 14(4), 669–680. DOI: <https://doi.org/10.1007/s11625-019-00686-9>
- 84** Williams Daniel R. – Vaske Jerry J. (2003): The Measurement of Place Attachment: Validity and Generalizability of a Psychometric Approach. *Forest Science*, 49(6), 830–840.
- 85** Tobiasz-Lis Paulina – Wójcik Marcin (2013): Evaluating and interpreting the city using a photo projective method. The example of Łódź. *Geographia Polonica*, 86(2), 137–152. DOI: <https://doi.org/10.7163/GPOL.2013.14>
- 86** Kim Jeeyoung – Son Yonghoo (2021): Assessing and mapping cultural ecosystem services of an urban forest based on narratives from blog posts. *Ecological Indicators*, 129(129). DOI: 107983. <https://doi.org/10.1016/J.ECOLIND.2021.107983>
- 87** Shrestha Sushma – Medley Kimberly (2016): Landscape Mapping: Gaining "Sense of Place" for Conservation in the Manaslu Conservation Area, Nepal. *Journal of Ethnobiology*, 36(2), 326–347. DOI: <https://doi.org/10.2993/0278-0771-36.2.326>
- 88** Jorgensen Bradley – Stedman Richard (2011): Measuring the Spatial Component of Sense of Place: A Methodology for Research on the Spatial Dynamics of Psychological Experiences of Place. *Environment and Planning B: Planning and Design*, 38(5). DOI: <https://doi.org/10.1068/b37054>
- 89** Dang Lisa – Weiss Jan (2021): Evidence on the Relationship between Place Attachment and Behavioral Intentions between 2010 and 2021: A Systematic Literature Review. *Sustainability*, 13(23), DOI: 13138 <http://dx.doi.org/10.3390/su132313138>
- 90** Zlender Vita – Gemin Stefano (2020): Testing urban dwellers' sense of place towards leisure and recreational peri-urban green open spaces in two European cities. *Cities*, 98(98). DOI: <http://dx.doi.org/10.1016/j.cities.2019.102579>
- 91** Masso Andrés Di – Williams Daniel R. – Raymond Christopher M. – Buchecker Matthias – Degenhardt Barbara – Devine-Wright Patrick – Hertzog Alice – Lewicka Maria – Manzo Lynne – Shahrad Azadeh – Stedman Richard – Verbrugge Laura – von Wirth Timo (2019): Between fixities and flows: Navigating place attachments in an increasingly mobile world. *Journal of environmental psychology*, 61(1), 125–133. DOI: <https://doi.org/10.1016/j.jenvp.2019.01.006>
- 92** Swapan Mohammad Shahidul Hasan – Sadeque Saalem (2021): Place attachment in natural hazard-prone areas and decision to relocate: Research review and agenda for developing countries. *International journal of disaster risk reduction*, 52(52), 101937. DOI: <https://doi.org/10.1016/j.ijdrr.2020.101937>