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

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YOUSEF, RAHAF | VALÁNSZKI ISTVÁN

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 • 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 signifcant 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

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PA

PA or SOF

Initial search & the used queries			Abstra creen		Excluding _ duplicate	 Full text screening	 Final screening & analyzing
OP and spatial evaluation	53	:	27				
PA or SOP and measuring	86	3	32	267		123	120
A or SOP and assessment	395	1	13				
PA or SOP and evaluation	235	9	95				

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 Measuring instrument (the 'Urban Identity Scale') as a model for operationalizing the theoretical idea.		
Lalli, 1992	Overview of the psychological literature on place identity in an urban context.			
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 Europe, Asia, North America, South Ame Australia, South Africa, Middle East, Turk			
		Scale of place	Country – Regional – City/Rural Areas – Town- Neighbourhood- Urban/Rural Facilities (Building)		
		Context of interest	Natural settings Urban/Rural Landscape Tourist Destination (Ex. Festival) Urban Environment Residential/House Development Risk Area		
	Conceptual framework	Concept used in the study	PA/ SOP/ PI		
		Concept's dimensions	•		
What are the methods used to study the concepts PA and SOP, and which dimensions were considered?	Methods/ tools	Questionnaire/survey Qualitative interview Models; attachment scale/designated scale Workshop/focus group On-site narratives Photo-based methods; photo elicitation/photo Projective method Participatory mapping; Public participation GIS, Participation observation Mixed methods			
What is the relevance and application of operationalizing PA and SOP in a planning context?	Application	Pro-environmental behaviour Climate change adaptation Tourism & recreation Wellbeing & quality of life			

search queries in our examination of people-place relainvestigating four aspects: i) geographical context of study; ii) conceptualizing framework; iii) methods/ tools tionship, since these keywords are the most frequently used in planning literature and relevant disciplines [13]. used; and iv) application of results. The analytical frame-To include only empirical papers on the operationalization work is shown in detail in Table 2. of the concept, we added one of the following keywords to the queries: assessment, evaluation, measuring, and RESULTS AND DISCUSSION spatial assessment. The results of our search presented in The significance of geographical context 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

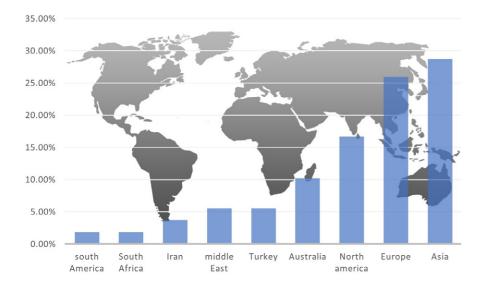
Public policy & spatial planning

the study of the people-place relationship

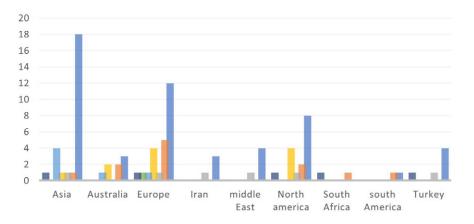
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The results of this study show that more than 50% of studies on SOP and PA are from Asian and European countries, with more than half of the studies in Asia coming from China. In the Middle East, the focus of the study was on Turkey, and Iran, while 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].

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■ city ■ country ■ neighbourhood ■ regional ■ rural area ■ rural facilities ■ urban facilities



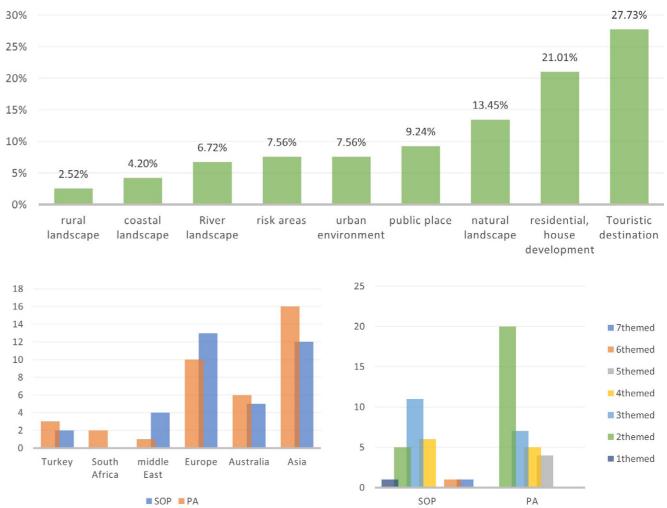
Our analysis of the scale of place, Figure 3, and type of place, Figure 4, revealed that most papers focused on the bond people form with tourist destinations, particularly in studies from China. The second trend in the literature is a focus on studying the attachment toward home and residential neighbourhoods, 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 relation ships between research and the locations where studies were conducted [16]. The difficulty in grasping methodologically the concept of place and transferring it into

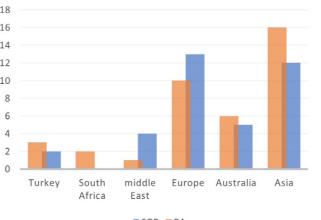
place-specific, formal method has made progress in "place sciences" appear slow and results meagre [17], especially when compared to theoretical developments in domains such as cognitive psychology or neuropsychology [6].

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, Pl, 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

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Figure 2: The geographical distri-

"Scale of place" according to geog-

▶▶ Figure 4: The distribution of "Type of place" according to geog-

▶ Figure 5: The use of SOP, PA

across different geographical

Figure 6: The conceptual

frameworks used for SOP & PA in

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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

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

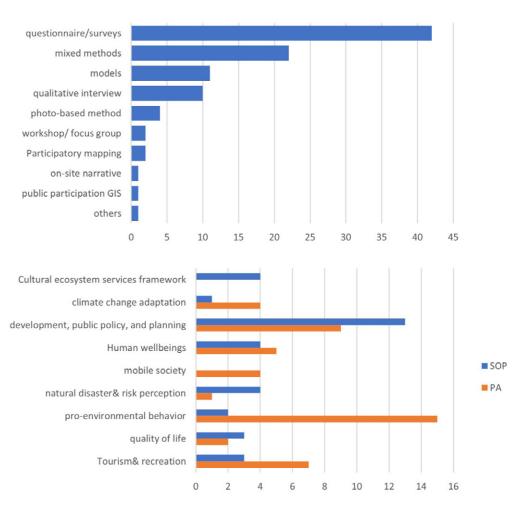
Term	Conceptual framework		
Sense of Place (SOP)	2 themed: PA, PI [42,43]. PA, PD [44]. PI, PD [45].		
	3 themed: PA, PI, PD [17, 20, 21, 22, 23, 24]. Identity, structure, meaning [46]. Form, activity, meaning [47]. place characteristics, responses to place, PA [48]. personal, phycological, spatial [49]. 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 [40].		
	7 themed: PI,PD, 'nature bonding', 'social bonding', 'sense of belonging', 'familiarity' and 'social interaction [41].		
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 [62].		
	3 themed: PI, PD, PS [63]. PI, PD, social bonding [64, 65]. PI, PD, loyalty [66]. Place, people, process [67]. Form, meanings, experiences [68]. Person, community, environment [69].		
	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



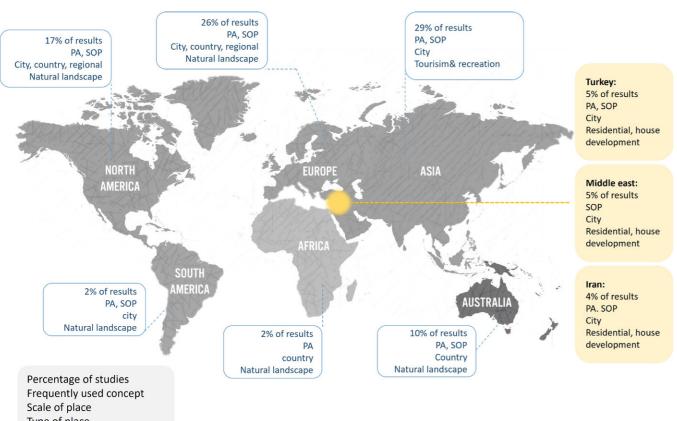
makes SOP a valuable area for studying tourist and travel behaviour [51]. In addition, SOP is a guiding principle in the design of the built environment for sustainability and liveability [1]. According to [89], the results of the qualitative analysis revealed that most of the studies provided empirical 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

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



Type of place 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 signif icant 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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