



The multilocality of sense of place in ecosystem services discourse

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Abstract

This paper focuses on sense of place as a cultural ecosystem service and a mediatory experience in grasping a collection of ecosystem benefits. Through phenomenological and social constructionism/relational approaches, we focus on sense of place as a relational entity at both the individual and collective levels. Using content analysis of 32 in-depth interviews with (a) environmental officials and (b) local inhabitants in the region of Ostrobothnia, Finland, the study finds that sense of place is shaped via the interactions of environmental settings and cultural practices. Here, we argue that material and non-material interactions contribute to sense of place. With a phenomenological approach, the study presents the qualities associated with places, such as tranquility, beauty, and uniqueness that are important for achieving both material and non-material ecosystem benefits, while social constructionism/relational approaches indicate that the social dimension of sense of place contributes to ecosystem service benefits through traditional cultural practices. The study also shows a shift in cultural practices from provisioning to recreation in creating meaningful places. The results highlight a multilocal dimension of senses of places, particularly in contemporary lifestyles and increased mobilities.

Keywords Sense of place · Cultural ecosystem services · Material and non-material interactions · Social dimensions of sense of place · Cultural practices · Multilocality

Introduction

The sense of place (SOP) concept has ignited discussion over the mutual dynamics of human–nature relations, especially in light of increased human mobility in recent years. Consequently, new forms and patterns of SOP have emerged, presenting the increasing fluidity and complexity of human–nature relationships (Raymond et al. 2023).

SOP presents human experiences with different environmental settings which act as mediators in shaping multiple experiences and meanings (Hakkarainen et al. 2022). Within this context, the ecosystem services (ES) discourse provides a valuable perspective for identifying how humans connect with environmental settings (Williams 2014). ES refers to “ecosystem contributions to both material and non-material benefits that arise from human–nature relationships” (Chan

et al. 2011, p. 3). Understanding these benefits offers an opportunity to acknowledge the subjective perceptions of places (Masterson et al. 2017; Gottwald et al. 2022) and the ways places contribute to the creation of benefits.

However, SOP has been overlooked as a benefit in the ES literature, owing to the fact that place is a complex concept (Masterson et al. 2017; Ryfield et al. 2019). For instance, ES research often limits places to predefined spatial areas with particular ecosystems, neglecting the mobility of individuals (Gottwald et al. 2022). In this article, we focus on using SOP in the ES discourse, where it has been included as a cultural ecosystem service (CES). We argue that mobility must be considered when SOP is part of both material and non-material CES benefits. A case study of a mainly rural region, Ostrobothnia on the west coast of Finland, is used as an empirical example.

There has been a widespread tendency for nearly two decades to define ES as environmental processes with tangible and intangible benefits that directly and indirectly affect human wellbeing (Costanza et al. 2017). The Millennium Ecosystem Assessment (MEA) has proposed four practical categories (provisioning, regulating, cultural, and supporting services) of ES as the basis for other frameworks (Reid et

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al. 2005). However, CES has always been a challenging category for integration into policy-maker decisions (Reid et al. 2005). To overcome this weakness, Fish et al. (2016a) have described CES as “different modalities of living people participate in, that constitute values and histories people share in, the material and symbolic practice people engage in and place where people live in” (Fish et al. 2016a, p. 210). This definition is aligned with Chan et al. (2016) who see CES as co-productions of people’s interactions with ecosystems, which also requires the consideration of geographical contexts. The CES definition by Fish et al. (2016a, b) highlights place as a complex socio-ecological system where both social and ecological realities have dynamic entities and are involved in creating SOP (Fish et al. 2016a, b). This necessitates a clarification of the function of place and SOP in achieving both material and non-material benefits.

The structure and function of place have been studied in landscape perceptions together with associated concepts, such as place attachment, place meanings, and identity (Masterson et al. 2019). However, as Ryfield et al. (2019) mentioned, in ES, concepts such as SOP are mostly considered as a managerial tool for the participation of local communities based on their emotional attachments to place (Ryfield et al. 2019). In MEA, SOP is defined as ‘non-material benefits’ of the ecosystem which people value highly via their interactions with ‘known attributes’ of their environment (Ryfield et al. 2019). The Economics of Ecosystem and Biodiversity (TEEB) framework considers SOP and spiritual experiences as one of four categories of CES acting as an influential factor in shaping local identity. In the old version of the Common International Classification of Ecosystem Services (CICES) framework, there were no direct references to SOP. However, the latest CICES version brings environmental settings and SOP closer, but does not consider SOP as a final benefit (Ryfield et al. 2019).

Based on the ES literature, we define SOP to include meanings and experiences that individuals create through their interactions in/with different environmental settings. We also affirm that these meanings act as mediators for grasping both material and non-material benefits. Grasping here implies how people receive benefits from ecosystems owing to the SOP that link them to specific places or environmental settings.

In the writing of this article, the role of mobility in the creation of SOP became impossible to overlook. Individuals today are mobile; they interact with many places to satisfy their needs. This, in turn, is going to expand various types of place potentials, like primary residences or second homes in creating senses of places (SOPs) (Di Masso et al. 2019; Devine-Wright et al. 2020). We argue that these increased experiences and connections should be considered in the ES discourse (Raymond et al. 2021), since they present SOP as a dynamic entity, a joint product of environmental settings and

cultural practices. Particularly, when places are influenced by global forces such as urbanization or advanced technologies, etc., places develop more fluid identities. This leads to plenty of ways for people to connect to their places and create SOPs (Di Masso et al. 2020; Raymond et al. 2021).

Following the above, this paper will focus on the relational framework proposed by Fish et al. (2016a, b), which not only expands the scale of CES to include material benefits, but also broadens the concept of place to include any environmental setting. This allows the CES framework to transcend predefined spatial areas and explore how individuals perceive places. However, due to the extensive literature on SOP, this research will concentrate on CES and propose an exploration of SOP as a mediator for grasping both material and non-material benefits. This requires the incorporation of SOP as a Relational Value (RV, explained in “Sense of place in cultural ecosystem services” section) within the CES perspective. Additionally, the potential of different environmental settings in creating SOPs will be in focus to better identify the dynamic entity of SOP. Accordingly, the main questions are the following:

- How does SOP aid the understanding of other benefits of CES?
- How do multiple environmental settings contribute to our understanding of CES in the context of increased mobilities through SOP?

For answering these questions, we first need to review the concepts of place and SOP from two key theoretical perspectives.

A brief review of place and sense of place

Place is considered as a meaningful location (Lewicka et al. 2019). However, definitions of the term meaningful have always been a source of dilemma among human geographers, phenomenologists (as essentialists), and their social constructionists/relational proponents (as progressives) (Lewicka et al. 2019; Raymond et al. 2021).

The essentialist perspective is close to Heidegger’s (Cresswell 2014) notion of being-in-place as a fundamental basis of authentic existence (Dasein), which enables individuals to engage actively with their surroundings (Heidegger 2002). Heidegger’s ideas have been employed extensively by human geographers, who adopted the phenomenological perspective to describe a place as a bounded entity with a unique identity and distinctiveness (Williams and Miller 2020). The essential qualities of place meet the human need for stable roots, fostering feelings of belonging and attachment (Raymond et al. 2021). Moreover, these qualities provide a mooring for place identity (Ibid.) which is at risk of

being lost due to modernization, urbanization, and globalization. Consequently, SOP is the relationship a person develops with a place as an attachment, driven from the essential qualities of the place (Cresswell 2014; Raymond et al. 2021).

The essentialist understanding of place as fixed and bounded into specific locations (Lewicka 2011; Williams 2014) has been completed with social constructionism/relational perspectives. According to these approaches, the concept of place is a progressive, relational, and culturally constituted phenomenon (Raymond et al. 2021). Then, places are social constructs that are produced, consumed, and contested through social processes (Raymond et al. 2021). These socially constructed meanings are embedded in power structures within everyday life. The role of social position and power in the construction of meanings are neglected factors in the phenomenological perspective (Williams and Miller 2020). Accordingly, places do not have fixed identities and are constantly produced and reproduced through social practices and representation of subjective meanings (Manzo et al. 2023). In other words, places are crossroads where different lifestyles and cultures meet and jointly create place identities (Massey 1993; Raymond et al. 2021). This opens the role of mobility as a natural human condition, creating fluid experiences of places.

Along these lines, Ryfield et al. (2019) classified the existing literature and concluded that a place is either material things, human activities, or socially produced things as representations and memories. Accordingly, SOP is:

- a dynamic assemblage of materials, flows of ideas and feelings, which are constantly changing, and
- a locus for existence, which forms the way we perceive and give meaning to our surroundings (Cresswell 2014; Ryfield et al. 2019).

By comparing phenomenology and social constructionism/relational perspectives, we gain valuable insights into the role of places and SOP in modern lifestyles. While some places maintain distinct local attributes, they are increasingly shaped by various forms of globalization, mobilities and communications. Consequently, it becomes essential to explore the mobility paradigm and its impact on the experience of place (Di Masso et al. 2020).

The mobility paradigm

Doreen Massey suggested the notion of place as an open hybrid of routes (Massey 1993). This extroverted impression of place challenges the essentialist conception of place as rootedness. Di Masso et al. (2019) argue that mobility suggests a rethinking of the ontology of place: the way spatial reconfigurations arise from mobility leads to reshaping the lived experience of being “located” (Di Masso et al. 2019,

2020). In this regard, the mobility paradigm unfolds the social and spatial experiences in the dynamic interrelation between movement and fixity (Di Masso et al. 2019). However, this paradigm does not replace fixity as the preferred mode of existence. Rather, it underlines mobility by fixity and territorial attachments and gives different geographical scales the potential to create attachments (Di Masso et al. 2020). As mentioned by Di Masso et al. (2019), attachments may be:

- *Attachment to visited places*: places like recreational, tourist, etc., are not just experienced as a locus of consumption, but have deep meanings for their visitors (Di Masso et al. 2019).
- *Attachment to multiple places*: Gustafson (2009) mentioned the potential of multiple places, especially second homes, in creating bonding. Developing multiple place attachments represents the ways individuals maintain their connections with families, local traditions, nature, and self-continuity (Gustafson 2009; Di Masso et al. 2019).
- *Settlement identities*: this concept includes both fluidity and stability as people change their place of residence. Current residential bonds will affect the way people follow types of settlements (Di Masso et al. 2019).
- *Attachment across life course*: these types of bonds happen over life-course movements such as marriage and education (Di Masso et al. 2019).

These types of attachments can be combined, and their combination approaches the understanding of a multilocal lifestyle. Multilocal individuals reside in more than one place and are repeatedly and simultaneously mobile between places of residences (Pikner et al. 2023; Rannanpää et al. 2022). Multilocal lifestyles involve extending life across multiple places, creating an interconnected relationship between stability and flexibility (Pikner et al. 2023). This lifestyle can be motivated by work, family, education, recreation, etc. This gives rise to a myriad of spatial and temporal mobilities, which in turn have implications for the SOP (Rannanpää et al. 2022).

Lastly, the mobility paradigm portrays the relational nature of the “fixity and flow” in shaping SOP/SOPs (Di Masso et al. 2019, 2020). This has an implication for CES, which focuses on the interconnection between different environmental settings and cultural practices.

Sense of place in cultural ecosystem services

Fish et al. (2016a, b), together with the latest version of the International Platform of Biodiversity and Ecosystem Services (IPBES 2022), underlined the relational entities

and processes of CES (Balvanera et al. 2022). Figure 1 outlines a three-level interconnected theoretical framework of CES (Chan et al. 2016; Fish et al. 2016a) based on SOP. At level A, phenomenology and social constructionism/relational approaches highlight the stability and fluidity of people–place relationships. This level is essential for comprehending CES components in shaping and reshaping benefits. To better clarify this interconnection, we will start at level B: CES and its benefits.

According to Fish et al. (2016a), the relationality of CES is dependent on the mutual interactions of environmental settings and cultural practices (level B) (Fish et al.

2016a, b). Locating cultural benefits in their geographical settings and culturally defined attributes (uniqueness and distinctiveness, etc.) highlights the diverse ways in which geographical contexts shape and are reshaped by CES benefits. This provides opportunities for diverse cultural practices, as mentioned by Fish et al. (2016b) such as playing and exercising, producing and caring, gathering and consuming, and creating and expressing, to establish connections to environmental settings (Fish et al. 2016b). The typology of cultural practices by Fish et al. (2016a) encompasses material and non-material aspects and thereby highlights the dynamic human relationships

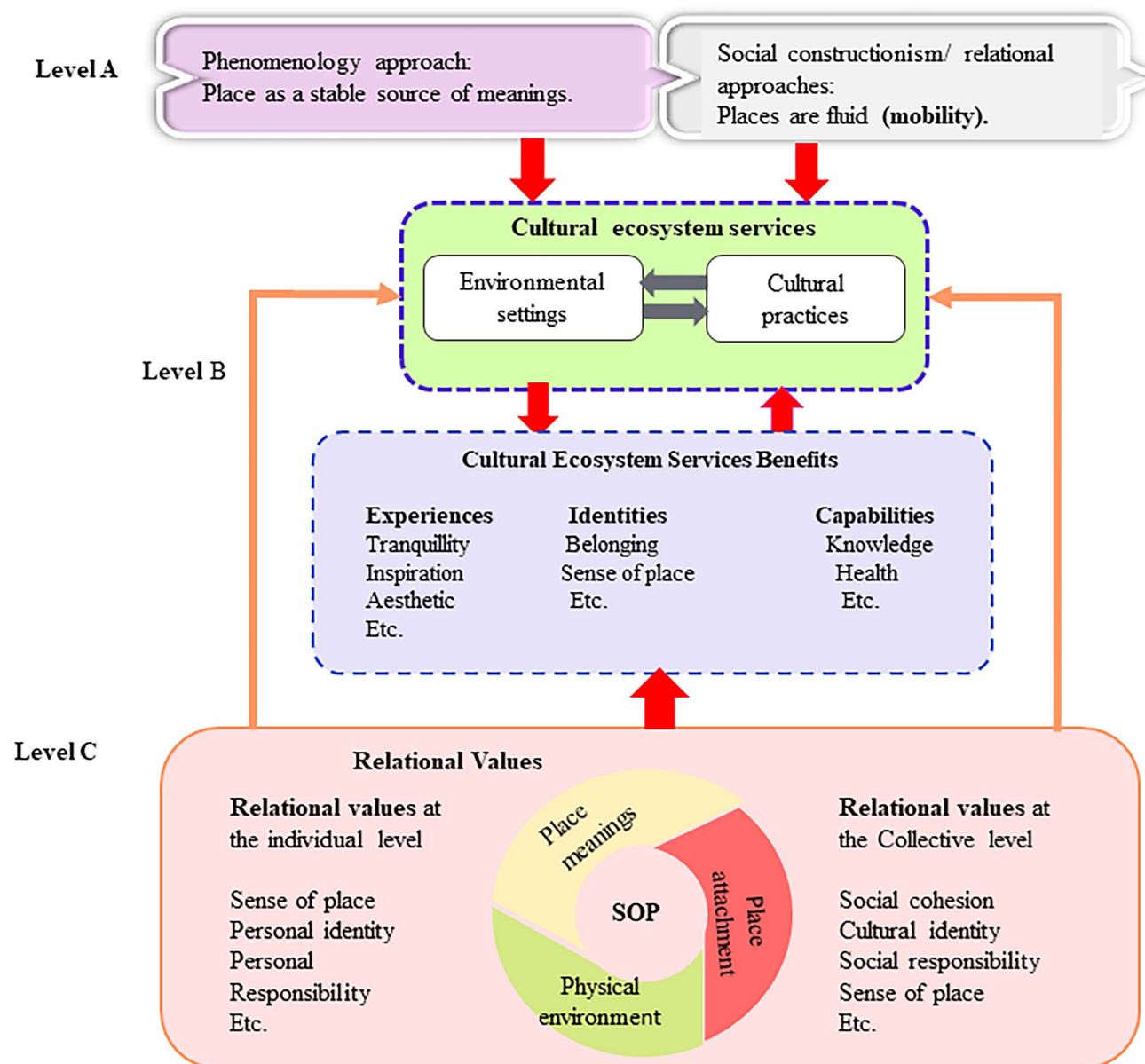


Fig. 1 The theoretical framework of the relational perspective of CES (Fish et al. 2016a, b; Chan et al. 2016) based on SOP

in/with environmental settings (Fish et al. 2016a). The dynamic nature of CES highlights the need for further exploration using Chan et al.'s (2016) concept of relational values (RV). RV acts as a tool to emphasize the nature of CES benefits deriving from people–place relationships (Gottwald et al. 2022).

RV at level C is gaining considerable attention by accounting for values and benefits that are not just environmental (Chan et al. 2016, 2018; Gottwald et al. 2022). RV is a category of values and benefits arising from meaningful relationships, experiences and responsibilities between people and a place (individual level) and between people (collective level) (Arias-Arévalo et al. 2018; Chan et al. 2018). According to Chan et al. (2016), RV represents “preferences, principles and virtues associated with relationships, both interpersonal and as articulated by policies and social norms” (Chan et al. 2016, p. 1462). This definition is in line with SOP, where a place is characterized not only by its natural and physical elements, but also by meanings and attachments (level C) (Arias-Arévalo et al. 2018). These meanings and attachments can be shaped by social and cultural processes (social gatherings, traditional festivals, etc.) which are reflected as individual and collective experiences (Gottwald et al. 2022). Therefore, SOP is both shaped by and is shaping the physical and biological components of the natural environment, human infrastructures, and historic socioeconomic contexts (Ryfield et al. 2019).

However, there are very few studies in the CES literature considering SOP as a relational entity and process, emphasizing the material/non-material aspects of cultural practices in creating connections with environmental settings. We argue that such studies would shed light on the roles of SOP components through RV at both individual and collective levels. As mentioned, the conventional CES frameworks, such as MEA and TEEB, consider SOP only as non-material benefits in the form an ecosystem (Cabana et al. 2020). Poe et al. (2016) argued that these conceptions limit the understanding of SOP to the static features of places, such as sensory experiences (Poe et al. 2016). However, as Poe et al. (2016) and Chan et al. (2016) proposed, social and material engagements can produce SOP, too (Chan et al. 2016; Poe et al. 2016). Urquhart and Acott (2014) revealed how fishing as a traditional material practice created SOP. The cultural significance of fishing practices produces SOP and sometimes even dominates the economic reasons why fishermen continue their profession when fishing is no longer profitable (Urquhart and Acott 2014). Ryfield et al. (2019) went further and proposed that the ecological and socio-cultural conditions of human habitations give SOP a central position as a material phenomenon and benefit. They analyzed SOP as resulting from different cultural practices in their study area and its representation in material culture like visual arts over time. The results indicated that SOP in both scenarios had

connections with other CES benefits like recreation (Ryfield et al. 2019).

Overall, these studies argue that SOP is a relational entity and process constructed through cultural practices (material and non-material) with/in places. This emphasizes three orientations in the CES literature according to the Fish et al. (2016a, b) framework, clarifying the relational entity of SOP through RV at individual and collective levels, but in predetermined spatial areas.

Three orientations of sense of place in cultural ecosystem services

By putting phenomenological and social constructionism/relational approaches together, we find that SOP encompasses three components: place attachments, and place meanings and environmental settings (Masterson et al. 2017, 2019). As Stedman (2016) mentioned, place attachment is emotional connection with places that arise from the physical qualities of places, while place meanings are cognitive and socially constructed (Stedman 2016; Masterson et al. 2017). Based on this, we propose three orientations of SOP in CES research:

- a materialistic and historical orientation in the phenomenology approach considers material feature of SOP;
- a place-making orientation in social constructionism/relational approaches considers the importance of cultural practices in shaping SOP;
- a context-based orientation considers both social constructionism/relational and phenomenological approaches and proposes that SOP is a result of cultural practices as well as physical features of the place.

The materialistic and historical orientation in Ryfield et al. (2019) challenges the prevailing CES framework, which primarily considers SOP as non-material benefits. According to Ryfield et al. (2019), SOP is a material phenomenon, which represents the physical and ecological conditions of the place over time. At the individual level, SOP establishes connections to various CES benefits, including spiritual, esthetic, knowledge, etc. (Ryfield et al. 2019). SOP, through indicators such as emotional bonds, personal identity and place meanings, reveals how ecological features intertwine with cultural benefits. By representing ecological features in material culture, this orientation emphasizes how specific social groups or communities collectively assign meanings to their place (Ryfield et al. 2019). Both dimensions of SOP in this orientation describe the dynamic nature of SOPs over time.

The place-making orientation, based on Poe et al. (2016), suggests that the importance of places extends beyond the material benefits they provide (Poe et al. 2016).

Indeed, traditional cultural practices, such as shell harvesting (material), create SOP at individual and collective levels (Poe et al. 2016). Engaging in traditional cultural practices and daily activities (non-material) contributes to the sensory experience, shaping SOP and enabling individuals to access both material and non-material benefits. Moreover, these activities intensify both individual and collective dimensions of SOP by strengthening personal attachment, cultural heritage, familial and social connections, and cultural identity. This facilitates the understanding of diverse CES benefits such as knowledge, well-being, provisioning, esthetics, etc. through SOP (Poe et al. 2016).

The context-based orientation in Urquhart and Acott (2014) focuses on social-cultural benefits of cultural practices like fishing (material) in creating SOP both at individual and collective levels (Urquhart and Acott 2014). Apart from personal attachment, SOP is mediated through community as collective identity, social cohesion, social relations, etc., and shaped by the physical environment. This leads to CES benefits like esthetics, inspiration or knowledge. The representation of SOP in material objects describes the interconnection of socio-cultural benefits with the physical feature of place. Therefore, SOP is proposed as an influential indicator that is

commonly associated with activities in a place (Urquhart and Acott 2014). Table 1 presents the indicators of these three orientations.

Through these three orientations, we argue that it is possible to identify the relational nature of SOP as place attachments, meanings, and physical environments. According to Table 1, the phenomenological approach examines how the physical attributes of places contribute to attachments and place identity through achieving both material and non-material benefits that the individual derive from their relationships with these places. Social constructionism indicators highlight place meanings as social products emerging collectively and maintained via interactions with the environment. Consequently, these meanings are dynamic phenomena according to different social positions and cultural contexts. This emphasizes the interconnectedness between the three levels in Fig. 1. Based on these understandings, we will now construct indicators for investigating SOP.

Toward SOP indicators

Based on the definition of CES by Fish et al. (2016a, b) and through the RV approach by Chan et al. (2016), we primarily consider place as any meaningful environmental setting where an ecosystem is situated. This helps us to consider the

Table 1 Three theoretical orientations to SOP with their related indicators

	Phenomenology		Social Constructionism
	←-----→		
	Ryfield et al. (2019) Materialistic and historical orientation (Dublin bay)	Poe et al. (2016) place- making orientation (Puget Sound coast)	Urquhart and Acott (2014) context-based orientation (Cornish fishing community)
Sense of place definition	Attachments and meanings to a special place and their representations in visual arts.	Individual and collective meanings resulted from activities in place.	The attachment and meanings via activities shaped by community and mediated by physical place.
Sense of place indicators	Emotional bonds, Personal identity, Meanings arising from physical characters, Material culture	a) Provisioning and recreational activities. b) Personal and place identity. c) Aesthetic and sensory experiences d) Social ceremonies	Personal/occupational identity Social cohesion and collective identity Physical objects as material culture

potential to create SOP in different environmental settings, regarding varying lifestyles and mobilities. As our habitats and lifestyles are more unsettled, we experience multiple settings in our lived experiences (Manzo et al. 2023; Raymond et al. 2023). Consequently, a more complex definition of SOP is required to reveal the ways different places, for instance a small nearby lake, a neighborhood, or a distant city, create direct, immediate and mediated experiences (SOPs) (Lewicka et al. 2019; Manzo et al. 2023).

Second, we use phenomenological indicators at the individual level to identify the contribution of physical features of places in shaping SOP and the way SOP acts to grasp CES benefits. Here, the RV approach helps us to identify the benefits that arise from the physical features of places through different cultural practices (material and non-material) on the individual level (Arias-Arévalo et al. 2018; Gottwald et al. 2022). However, the phenomenological approach overlooks the social aspects of meanings associated with place, which are influenced and constrained by social, cultural, and economic conditions (Ono et al. 2021). This requires considering social constructionism/relational approaches in order to track the place functions through different cultural practices in creating socio-cultural meanings, and in understanding how social/environmental responsibilities, cultural identities and social cohesion contribute to creating SOPs. This characterization of SOP is in line with the RV category and accounts for the social and collective dimensions of SOP with different environmental settings (Gottwald et al. 2022; Manzo et al. 2023). Furthermore, the emphasis by Masterson et al. (2017, 2019) and Stedman (2016) on the social roles involved in shaping SOP also aligns with the RV category, where values/benefits are derived from relationships and responsibilities (Stedman 2016; Masterson et al. 2017, 2019).

Therefore, SOP acts as a tool to identify the diverse CES benefits humans obtain through mobilities or being-in-place (a) at both individual and collective levels, and (b) from material and non-material aspects of cultural practices. This combination of dimensions will be used to analyze the case study data, as we argue that it helps to grasp the complexity of a place in our case study.

Materials and methods

In this study, we use a content analysis of interviews with locals and professional environmental managers to explore their SOP in the region of Ostrobothnia in Finland. The region stretches along 230 km of coastline, and the environment is accordingly dominated by the sea. A noticeable natural landmark is the Kvarken Archipelago with 5600 islands, which has received status as a UNESCO World Heritage site due to the post-glacial rebound and

special ‘De Geer moraines’. Ostrobothnia is mainly rural with 180,000 inhabitants, of which about 100,000 live in and around the urban center of Vaasa. The region is also strongly bilingual, with a near 50–50 split of the Swedish- and Finnish-speaking populations. As a rural coastal region, this case ensures that the population has easy access to both the sea and the forest, and that nature is a part of the cultural heritage. Ostrobothnia is accordingly suitable for different recreational activities in the wilderness and on the coast.

We focused on two groups in this region: (1) environmental management officials (working in environmental management in municipalities) and (2) local inhabitants (people living in the region) to evaluate the ways these two groups understand CES based on SOP.

While local inhabitants may have a varying knowledge of ecological features, the environmental officials group represents people with specific scientific knowledge related to ecology and/or biology. Both group connections to the place are varying, with some of them being born in the place while others have moved in from other and sometimes very different places.

By including these groups, we wanted to study the categorization of cultural practices by Fish et al. (2016b), who identified both direct and indirect relationships with nature. The hypothesis is that a scientific outlook departs from an indirect relationship to nature, which may or may not be completed with a direct relationship. According to Fish et al. (2016b), producing and caring practices are spanned and blurred between work and leisure. Environmental professions belong to this category related to the physical conservation and management of environmental features such as cultivating food, fishing, environmental volunteering, citizen science and participation in environmental stewardship (Fish et al. 2016b). The involvement of environmental officials in monitoring ecological health indirectly relates to the caring and producing category, regardless of their direct engagement in other cultural activities. The engagement of local inhabitants in producing and caring activities was related to their direct and indirect involvements in this category and other cultural practices.

The aim when selecting respondents for the local group was to achieve variety in all regards, such as age, gender and occupation. The selected interviewees represent varying occupations such as teachers, foresters, fishermen, retirees and athletes living in different places on a rural to urban spectrum. The local inhabitants group included interviewees from all parts of Ostrobothnia. Our sample included people living in this area for at least 5 years. In the environmental officials’ group, we ensured reaching both urban (Vaasa as the regional center in Ostrobothnia) and rural (Korsholm) municipalities. Korsholm municipality is host for the West Coast Environmental Unit, which is a joint body for seven

Table 2 Demographic characteristics of the interviewees

Groups	Originally from Ostrobothnia	Living in Ostrobothnia at least 5 years	Total
Local inhabitants	10	6	16
Environmental officials	11	5	16

rural municipalities in Ostrobothnia. Table 2 indicates the demographic characteristics of both groups.

We interviewed 16 people in each of the groups (total number = 32) between July and October 2019 by snowball sampling. After finding an initial respondent, they usually introduced 3–4 individuals who were interested in participating in our study, and interviewees were selected strategically from these suggestions according to the strategy described above. The language of the interviews was English, since interviewees selected to speak English for best communication with the interviewer. However, interviewees used their native languages when it was difficult to remember the English words or phrases.

Interviews lasted 50–100 min and were audio recorded and then transcribed. Questions were semi-structured and largely open ended to ensure adequate latitude for articulating ideas and meanings. The interviews involved questions about place attachment and meanings such as the participants' favorite places and place connections, as well as the importance of places and their meanings, cultural activities, the possibility of change in their favorite places and questions regarding to CES. We considered SOP as answers to these questions: is/are there any places which are important to you? Why? What does it mean to you? Can these places say something about who you are? How do you connect with these places? Moreover, the environmental official group could choose between their professional and personal perspectives when responding to these questions. The interviewer sought to clarify with several questions whether the responses were influenced by personal or professional perspectives, and the role of their professions and educational background in shaping their SOP.

Transcripts were organized and coded using NVIVO 12 software and the emergent themes are presented in the findings of this article. The theoretical conclusions are used the data into four themes. Coding involved the current themes in the data. These are either identified deductively, emerging from the types of questions in the interview guides and theoretical frameworks based on Fish et al. (2016a, b) and Chan et al. (2012, 2016, 2018), or inductively during the process of coding. Through Fish et al. (2016a, b) we identified codes for environmental qualities, cultural practices and CES benefits. Following Chan et al. (2012, 2016, 2018), codes related to individual and collective attachments and meanings of

SOP were achieved. The main elements intersect, indicating occasional overlap of themes.

Results

In our analysis, we found that SOP aspects were highlighted by interviewees for multiple locations. The distribution of locations as particular places shows that these are closely tied to landscape or seascape features.

Individual SOP through non-material practices

Our results indicate that SOP, in both groups, encompasses physical qualities and provides non-material and material benefits across different locations, like the Kvarken Archipelago, the sea, nearby forests, cottages and beaches. Individual interviewees stated the following:

“I live here for my studies; there are some places that are important for me... I visit them very often... like our summer cottage in the south part of Finland, our sunflower farm, the Kvarken, my parent's home in the south-east. I feel so calm and relaxed [in these places]” (local inhabitants).

Belonging to these places also included esthetic appreciation and accessibility:

“I live in a rural area, but my workplace is in the city center. Comparing to Helsinki, I like here (Ostrobothnia) more. The nature is closer and untouched which makes it different. Every day, I visit these nearby locations to relax and refresh” (environmental officials).

Owing to ecological features, the respondents indicate places like the Kvarken Archipelago or the beach as distinctive places, and that they have rare and unique wildlife qualities:

“I have a lot of photos [of] the Kvarken horizon, the beaches, my cottage in the central part of Finland... these special places have unique natures that inspire me to do photography” (local inhabitants).

The same quality among the environmental officials group was related to biological features with heritage value: “The Kvarken has special biological features, we need to preserve it for our future generations to learn about biological values”. However, for people living there, the place is a part of their identity:

“I am so glad that my workplace is in the city center where I can see the sea. I live in one village in the Kvarken Archipelago. After working days, I do walk

from my village to see the sea, it is relaxing to be near the sea... it is part of my identity” (local inhabitants).

In conclusion, the expressions of belonging to different locations are rooted in the ecological characteristics of these places, like uniqueness, distinctiveness, and wilderness. These qualities lead to gaining different CES benefits such as inspiration, esthetics and mental well-being (Fish et al. 2016a, b). However, in contrast to the phenomenology approach, where being-in-place serves as a fundamental basis of SOP, our findings indicate that the temporary mobilities due to for instance work or recreation contribute to the distinctiveness of various locations for both groups. This exemplifies level A in Fig. 1, where both essential and progressive approaches influence the interplay of environmental settings and cultural practices in creating CES benefits.

Individual SOP through material practices

The sea, forests and the Kvarken Archipelago are working places for some of our interviewees, such as foresters and fishermen. These activities also create SOP through not only achieving material benefits, but also non-material:

“The Kvarken Archipelago where I go fishing is a special place for me, *it is not about fish*. I think that all the seas in the world are important for me, and my summer cottage is also near the sea, it’s like 3 hours of driving to the south. These places make me calm and relaxed” (local inhabitants).

However, for the environmental officials group, what makes these places special is their status as protected areas, sometimes linked to economic benefits:

“For me the Kvarken is really unique. We always record its conditions... and it belongs to UNESCO as a protected area and tourist site. It is like a win-win situation, it has economic value, and the nature will be protected... Even when I walk in forests, I check forests condition... I think, we have to protect more areas. It improves tourism industry” (environmental officials).

However, direct engagements of the local group in producing activities create attachments that are not only limited to economic and livelihood benefits. Additionally, changes in the ecological features of special places motivate local groups to care for these qualities:

“I go to sea everyday... unfortunately, I see algae now on the sea, the reason maybe relates to wastewater from cottages or houses which are close to the sea... before we didn’t have many houses, many tourists, and many cottages... Even I go walking around the Kvarken... I see trash sometimes and pick it up... but

we used to have a very clean sea, forest... we need to care more” (local inhabitants).

Furthermore, place attachment to the working place among local inhabitants spans over generations and establishes connections to personal, occupational and even familial identities:

“My forest is a special place for me, it is like 45 minutes from the place where I live. I go there every day... I inherited it from my family. *Timbers* of my forest are very precious for me... *It is not about money*. I feel connection to it, to my family...” (local inhabitants).

The results indicate that SOP blurs the distinction between material and non-material benefits. The engagements of local inhabitants in producing and caring practices extend beyond material benefits (fish, timber, etc.). Environmental officials utilize scientific knowledge to emphasize the importance of place attributes for material benefits. Regular movements in both groups, for both working and recreational activities, contribute to the creation of SOPs in different settings. SOPs in different places extend beyond phenomenology, highlighting the importance of family heritage (Urquhart and Acott 2014; Poe et al. 2016) and social roles of environmental officials in understanding benefits (Ono et al. 2021). Figure 1 demonstrates how the individual dimension of SOP is linked to the collective dimension through RV.

Collective SOP through non-material practices

At the collective level, place values to some locations (such as city, village, Ostrobothnia) can be seen as a social dimension of SOP, encompassing not just emotional attachment and appreciation of a place, but also social relations, collective identity, and cultural and familial heritage. One respondent mentioned:

“My village (North part of Ostrobothnia), my cottage in the southwest of Finland and this city where I am living now are important for me because of my friends, my family ...I always visit my village on the weekend to meet my family and other villagers” (environmental officials).

The belongings to places such as our neighborhoods, our city or our village through family traditions and social relations contribute to cognitive development and local knowledge, as one participant mentioned:

“Our city is a special place for me. Boating life is very common there... we take a boat with friends and family and go around and explore many untouched islands. It makes us to see the pureness of nature, be curious, and respect it” (local inhabitants).

Sense of belonging contributes to an identity that is collectively constructed and defined through cultural-historical customs. Therefore, some expressions in the interviews may be interpreted as representations of the Ostrobothnian way of life:

“...Ostrobothnia gives us special habits which make us different...[Being] Ostrobothnian means being active, living close to sea, having boat, doing fishing, picking berries and mushrooms... I don't think other places are like us, we are always out in the nature” (local inhabitants).

“...I am from Sweden and grew up there but lived some years in Helsinki and now I live in a village close to city. When I came to Ostrobothnia, I found something interesting, here people are always out in the forest or near the beach, and they walk very much or they go to pick berries, mushrooms, go fishing, ... I like this culture” (environmental officials).

The existence of the linguistic communities in some villages emphasizes the role of heritage in constructing social cohesions and place attachments even among people who are not from Ostrobothnia:

“My village is Swedish speaking with a small beach where most villagers get together for traditional events like at mid-summer... all the villagers come back to the village from wherever they live. Celebrating mid-summer with other villagers makes it special. It is good to see many others [such as tourists] come to see our celebration...” (local inhabitants).

“Midsummer is a huge tradition in the Ostrobothnia. I live here for my studies and find midsummer to be a very attractive tradition...I even plan to come to celebrate midsummer here for the rest of my life ...It makes me feel close to this area” (local inhabitants).

Through social constructionism/relational approaches, our findings highlight the relational dimension of SOP mediated through cultural practices. SOP in this dimension emphasizes social relationships in grasping CES benefits like collective identity, cognitive development and learning (Urquhart and Acott 2014; Poe et al. 2016). The distinctiveness of places like Ostrobothnia and our village underscores the importance of unique cultural practices for both old and new inhabitants. These practices foster collective identity, requiring active engagement with environmental settings that necessitate temporary mobilities. This highlights the role of RV in Fig. 1, which emphasizes the connections between people, thereby aiding in comprehending the social structure of SOP.

Collective SOP through material practices

Expressions such as “free food”, “no need for shopping” by the interviewees reveal not only the ecosystem functions, but also traditional cultural practices that contribute to producing a distinctive landscape. Therefore, these expressions represent provisioning benefits:

“For picking some berries and mushrooms [you] need to know special places, they are not close to where we are living... My mom, grandmother and I go to different places around Ostrobothnia to pick them. They know many places. I learned a lot from them...It is a good *income* for us...*It is free food*” (local inhabitants).

Indeed, picking berries, mushrooms and fishing is a way of life for the older generation, through which knowledge, traditions and community bonds are formed. However, according to Kenter (2020), gathering and consuming may transform into both recreational and provisioning services over time (Kenter 2020). The interviews suggest a change of this category into a recreational activity with social-relational connections among younger respondents:

“I moved here (Ostrobothnia) for my studies. I see many are picking berries and mushrooms here. In Helsinki I rarely went to pick berries and mushrooms. But here I always go with my friends... but this culture is unique for me, it makes me more active...” (local inhabitants).

Despite changes in cultural practices, locals place importance on preserving the Ostrobothnian way of life by protecting both material and non-material cultural activities. They emphasize reviving the human-nature connection, especially to newcomers:

“Ostrobothnia has changed a lot, more new people, more shops, more buildings. Sometimes I don't remember the old parts...we need to preserve Ostrobothnia's unique culture to both our younger generation and the people who are new here...” (local inhabitants).

“I am not from Ostrobothnia, but I work here... I know *fishing like ice-fishing* is important here... But I am not sure if these days Ostrobothnians have time for fishing.... Now, there are many kinds of fish or foods in shops... These traditions like fishing, picking berries... make forests, sea, cottage, nature very important, they show who we are, where we are from...we need to transfer them to younger generation” (environmental officials).

The collective aspect of SOP indicates that cultural practices with material aspects contribute to different CES

benefits like provisioning, social relationships and local knowledge (Urquhart and Acott 2014; Poe et al. 2016). However, social constructionism/relational approaches underscore that the traditional cultural practices have undergone a shift of meaning over time. This transformation of place identity, influenced by factors like urbanization and migration, enhances the preservation of a collective identity among younger generations and newcomers. This aligns with level A of Fig. 1, illustrating the interconnectedness of environmental settings and cultural practices, creating dynamic entities in CES benefits.

Table 3 summarizes the findings by displaying CES benefits within meaningful places and the underlying reasons for mobility in both groups. We will now go on to discuss these findings in the light of previous research.

Discussion

As we have seen, there are a number of findings highlighted by the study that are relevant to the CES and SOP literature. Here, we will discuss how SOP, both individually and collectively, contributes to material and non-material CES benefits, and the way SOPs in multiple environmental settings highlight the role of mobility in the ES framework.

At the individual level, by using the phenomenological approach, we found different qualities that are essential for

achieving material and non-material benefits. Our results confirm previous studies highlighting the source of these qualities as ecological features of such settings (Fish et al. 2016a, b; Poe et al. 2016; Ryfield et al. 2019). Qualities like tranquility, accessibility, beauty and uniqueness are important features for achieving CES benefits and are in line with the study by Fish et al. (2016a). Although these qualities were close to the essentialist perspective, our study shows that multiple places create meaningful experiences that are not necessarily a result of being-in-place. Mobilities even at temporary levels create SOPs and allow individuals to appreciate the collection of benefits places have to offer. This is close to the mobility paradigm which considers fixity and fluidity experiences in creating SOP (Di Masso et al. 2019; Manzo et al. 2021).

The contribution of physical features in the grasping of CES benefits at the individual level goes further than the essentialist perspective. Among the environmental officials group, such qualities were associated not only with personal attachments, but also with preserving both ecological and economic benefits through scientific knowledge. This neutralizes the distinction between material and non-material benefits in CES. Moreover, it confirms that the scientific outlook of the environmental officials exposes education as another factor in the creation of SOP. This is in line with the study by Hausmann et al. (2016), which describes that the improved knowledge about biodiversity contributes to the

Table 3 Identified indicators at the individual and collective levels of SOP as well as CES benefits

	Material cultural practices			Non-material cultural practices		
	CES benefits of both groups	Meaningful places	Reasons for mobility	CES benefits of both groups	Meaningful places	Reasons for mobility (both groups)
Individual	Esthetic Identity Belonging Inspiration	Second homes, Kvarken, nearby forests, close to beaches		Esthetic Inspiration Identity recreation and tourism Belonging Caring Mental well-being	Second homes, nearby forests, forests, close to beach, Kvarken	Recreational activities, personal belonging, study, working
	Environmental officials: recreation (economic benefit), biodiversity Local inhabitants: provisioning (food, timber)		Working, recreation, personal belongings Working, recreation, personal belonging, family heritage			
Collective (both groups)	Social relations Collective identity Recreation Livelihood (income) Local knowledge	Kvarken archipelago, Ostrobothnia, different forests	Family, friends, income, recreation (collectively)	Social relations Collective identity Local knowledge Cognitive development	Our village, second homes, Ostrobothnia, our city, our village	Family, friends, ceremonies (cultural heritage), recreation (collectively)

creation of SOP (Hausmann et al. 2016). Scientific knowledge about the ecological features of places that are relevant to economic benefits motivates environmental officials to engage in caring practices.

Additionally, this explains how social roles play a crucial role in creating SOP. According to Stedman (2016) and Masterson et al. (2017, 2019), social roles go beyond the essentialist perspective by emphasizing different representations toward caring motivations (Stedman 2016; Masterson et al. 2017, 2019). On the other hand, caring motivations were rooted in personal, occupational and family identities, leading the local inhabitants' group to engage in caring practices. This exemplifies the way RV mediates the relationships between individuals and places by shaping responsibility and actively engaging in the preservation of CES benefits (Chan et al. 2018; Gottwald et al. 2022).

At the collective level, cultural practices created SOPs for grasping CES benefits. Through the lens of social constructionism/relational approaches, our results show how the social dimension of SOP is tied to traditional cultural practices. In contrast to other studies, our findings indicate that SOP has a strong social dimension which is exemplified through RV and benefits like collective identity, social cohesion and social relationships. The representation of collective identity (Ostrobothnia, our village, etc.) through traditional cultural practices underscores that places are rooted in history and cultural heritage (Cresswell 2014). This is close to the discussion by Urquhart and Acott (2014) and Poe et al. (2016) on heritage as an accumulating phenomenon that is accompanied by site-specific skills, environmental learning and social relationships (Urquhart and Acott 2014; Poe et al. 2016). Along with Poe et al. (2016) and Urquhart and Acott (2014), our results confirm that traditional cultural practices create shared meanings, experiences and identities which are crucial for CES benefits. However, our results display the transformation of traditional cultural practices from provisioning to recreational activities in creating SOP, which is similar to the conclusions by Kenter (2020) and Fish et al. (2016a), who suggest a shift in cultural practices between generations. Our study develops this understanding further by indicating that Ostrobothnia as a collective identity is sustained among younger generations and newcomers through such practices, despite urbanization and mobility. Furthermore, the social and cultural benefits obtained from traditional activities highlight how these practices require inhabitants to be active and create SOPs.

As mentioned earlier, the progressive approach highlights SOP as a fluid entity (Raymond et al. 2023). Our results emphasize that meaningful places are produced not only through traditional cultural practices, but are also reproduced through mobilities between places by both old and new residents. The representation of Ostrobothnia among new residents does, however, emphasize the way mobilities

and cultural practices create SOPs through achieving a collection of CES benefits. This underscores the argument by Raymond et al. (2021, 2023) and (Massey 1993) that a more progressive perspective of places and SOPs is necessary.

With the phenomenological and social constructionism/relational approaches, our results indicate a multilocality of places in both groups of our study. This result reflects the findings of Lehtonen et al. (2019) and Pitkänen et al. (2020) regarding the multilocality of the Finnish lifestyle because of increasing mobility, for instance due to commuting, studying and recreation (Pikner et al. 2023; Pitkänen et al. 2020; Rannanpää et al. 2022). Moreover, it suggests the potential of rural areas like Ostrobothnia as places of work, living, traveling, hobbies and even forming identity (Pikner et al. 2023; Lehtonen et al. 2019). Multilocality may satisfy the needs and desires of an individual in everyday life. Multilocality in our case implies mobility through different cultural practices across various places as the main element of everyday life in Ostrobothnia (Lehtonen et al. 2019; Rannanpää et al. 2022). Along with Raymond et al. (2023), contemporary lifestyles provide more fluid and immediate SOPs. In mutual interactions between environmental settings and cultural practices, multiple locations have the potential to create SOPs. SOPs among both old and new residents highlight the diverse CES benefits gained through mobility and cultural practices in different places.

According to our knowledge, there are no references to multilocality in the context of SOP in the ES literature. Multilocality presents rural areas as increasingly becoming the locus of a range of recreational activities and other forms of mobilities. Growing digitalization, transportation and communication give the rural areas a relational identity between fixity and mobility (Rannanpää et al. 2022). Moving beyond predefined spatial areas reveals how both environmental settings and cultural practices shape SOPs. Raymond et al. (2021) similarly argue that mobility challenges the current sense of place perspectives, which proposes places as mere containers or backdrops of social processes and interaction. Accordingly, using the plural *senses of places* enables the identification of the role of environmental settings as relational spaces in creating dynamic meanings, experiences and identities (Raymond et al. 2021).

Conclusion

We have constructed a tool for analyzing SOP as a mediatory experience for grasping collections of benefits through material and non-material practices. In a context where being in nature is a central part of an identity, a change in the functions of cultural practices can alter the meanings, experiences and understandings of benefits. This can be a result of increasing mobility, communication technologies,

transportations or in/out migration. Therefore, dynamic entities in traditional activities must always be considered in the CES discourse.

From another perspective, places in the contemporary world are influenced by ongoing interactions with the outside. Consequently, grasping their benefits requires expanding the phenomenological considerations of place into a progressive approach in the ES discourse (Raymond et al. 2021). Figure 1 highlights the importance of an interconnected CES framework for comprehending SOPs in modern life.

This study challenges the ES discourse, particularly CES, on the scale of places from natural to concrete types such as a region. It emphasizes the interconnectedness of environmental settings with wider social, economic and cultural systems. Therefore, understanding SOPs requires considering the interplay between mobilities and place interactions, which shape meaningful experiences and identities (Rannanpää et al. 2022). As Massey mentioned, places do not have integrated identities. The meanings, experiences and relationships thereby may have multiple sources because of increased mobility. The multilocal lifestyle in Finland represents the potential of multiple places in the creation of meaningful experiences.

We suggest that the ES discourse needs to consider the dynamic relationships of people–places in which both factors have a transforming potential. This highlights the consideration of social dimensions of places in environmental management.

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Declarations

Conflict of interest The authors declare no competing interests in the conduct of this research.

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