



# The inner dimension of sustainability transformation: how sense of place and values can support sustainable place-shaping

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## Abstract

Sense of place and values are concepts that have been defined in a multiplicity of ways by a variety of disciplines and seldom approached in combination within studies of place-based sustainability. In recent years, the debate on sustainability, and particularly on sustainability transformation, has started to recognise the central importance of the “inner dimension” in achieving sustainable futures. This brings to the fore individual and cultural immaterial aspects, such as values and sense of place. The aim of this article is to explore the role of sense of place and place values in the context of sustainable place-shaping and propose a framework to operationalise them in research. Three central questions guided and structured our work: (a) how can place-shaping contribute to sustainability transformations? (b) what is the role of the inner dimension of transformation in processes of sustainable place-shaping? (c) how to include the inner dimension—specifically sense of place and its underlying values—into place-shaping practice and discourse? Through the article, we argue that there is scope for a broader understanding of how sense of place contributes to sustainability transformations through place-shaping. The article ends with the introduction of an analytical tool for the study of sense of place and place values as potential drivers of place-based transformation. The conclusion of the article summarises the contribution of the inner dimension of place to place-shaping and, more in general, sustainability transformation.

**Keywords** Place-shaping · Sense of place · Sustainability · Sustainability transformation · Place values

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## Introduction

In recent years, place-based approaches have entered the sustainability discourse, challenging the non-spatial and technocratic perspectives that have so far dominated the field (Barca et al. 2012; Clark and Dickson 2003; Marsden 2013; Marsden and Farioli 2015). Increasingly, sustainability is recognised to be a place-based phenomenon—one that requires, in order to be achieved, a deep understanding of the people–place relationship (Calvo and De Rosa 2017; Uzzell et al. 2002). Place-based sustainability approaches call for a recognition of the uniqueness of places—in terms of local resources, assets, people’s capacities, knowledge and preferences—and therefore reject the implementation of undifferentiated solutions that overlook local specificities (Barca 2009).

Alongside this growing focus on place, transformation has become a key debate in sustainability research and policy discourses, as there is an urgency for adaptation to the current sustainability challenges in a fundamental way

(Blythe et al. 2018). Transformation has been understood in different ways, for example as an organised, top-down managed process towards a certain goal in a given sector, as the fundamental alteration of a social–ecological system (Folke et al. 2005; Gunderson et al. 2005) or as a radical, bottom-up perspective to change (Blythe et al. 2018; Feola 2015). Transformation includes the active construction of new practices and new meanings (Asara et al. 2015), it can take on a normative and deliberative dimension, and it often involves an intention to change a situation to a more beneficial state (Chapin et al. 2009).

Place-based approaches, expressed via sustainable place-shaping practices, can have transformative power in connecting people to place (Horlings and Roep 2015). It has been argued that processes of place-shaping enable the engagement and collaboration of varied actors, shaping or altering the material and immaterial relations that construct places (Horlings 2016a). Places in fact have a dynamic nature, as they are constantly contested, re-made and re-shaped by relational processes (Duff 2011; Massey 2004, 2005). According to this notion, places are not mere geographical locations on a map, fixed in time and space; rather, they are dynamic and unbound assemblages of people and practices (Horlings 2016a; Massey 1994), outcomes of both material and immaterial processes and relations that transcend geographical boundaries (Heley and Jones 2012). Such processes and relations, moving beyond the traditional nature–society divide, can be considered as a co-production effort between human agents and natural processes, “shaping” places together and allowing transformative change (Folke 2006; Woods 2011).

In this article, we focus on sense of place, defined as the collection of meanings assigned to a place, and place values, or the underlying feelings of importance connected to certain features of place, as potential drivers in place-based sustainability transformation. Meanings and values are key elements in determining people’s willingness to embrace change, and as such they are likely to play an extremely important role in the quest for sustainability (Horlings 2015a). Meanings, motivations and values refer to the “interior transformation” (Riedy 2013, 2016), or the “inner dimension” (Horlings 2015a) of sustainability, drawing from the AQAL model from Integral Theory (Wilber 2005). Attention to this dimension is relevant for place-shaping, as it can shed light onto those symbolic and emotional aspects of places that are often overlooked in favour of tangible, material changes (Davenport and Anderson 2005). Place-shaping, in fact, is not just influenced by political-economic processes and material practices, but also by a personal sphere including individual and shared beliefs, values, worldviews and paradigms, contributing to change “from the inside out” (O’Brien 2013; O’Brien and Sygna 2013). People attach subjective (individual and cultural) meanings to places, make “sense of their place”, and add symbolic value

to place in varied cultural contexts (Dessein et al. 2016; Horlings 2016b; McIntyre et al. 2008; Relph 1976; Tuan 1980).

We acknowledge the growing body of literature that has raised the importance of the “inner dimension” for sustainability transformation (Horlings 2015b; Riedy 2016; O’Brien 2018; Ives et al. 2019) and sense of place and place-based values (Masterson et al. 2017a, b), in particular those that go beyond spatial ones (see, e.g. Verbrugge et al. 2019). However, we hold that these bodies of studies are not yet well connected. Therefore, the aim of this article is to explore the connections between sense of place and place-based values in the context of sustainable place-shaping and in that way, better understand and integrate them in the debate on sustainability transformations. We start in the next section by introducing the concept of place-shaping as a potential place-based approach to achieve sustainability transformation. Here we address the first central question guiding our work: “how can place-shaping contribute to sustainability transformations?”. Using the “four-quadrant or AQAL model” (Wilber 2005) as a basic framework to conceptualise transformation, we then make the case for a greater focus on the “inner dimension” in place-shaping practice and discourse. The following section dives into the inner dimension of place-based transformation, understood here as the collection of meanings and values attached to and embodied in places, and addresses our second central question: “what is the role of the inner dimension in processes of sustainable place-shaping?”. After making the case for a new research agenda linking sense of place and values with sustainable place-shaping, we provide a brief review of the literature on sense of place with a specific focus on the meanings attached to place. We then introduce the concept of place values and how place values inform sense of place. Our aim is not to provide a full overview of the literature on sense of place or values, which are both very broad concepts and well-studied fields, but to explore their interconnections in the context of sustainable place-shaping to advance the debate. Finally, we summarise the contribution of the inner dimension to place-shaping and introduce an analytical framework that can be useful to operationalise the sense of place and place-based values in empirical research. Here we address our final question: “how to include the inner dimension into place-shaping practice and discourse?”. This framework brings together a relational understanding of the concepts of sense of place and place values, and links them with the dimensions of transformation of the four-quadrant model. Overall, by bringing various discourses together we aim to make the case for more scholarly attention on these issues, starting from the assumption that an exploration and understanding of sense of place and place values can offer insight into people’s commitment to place and their willingness to contribute to place-based transformation (Horlings 2015a 2017). The article then finishes with some concluding remarks.

## Sustainable place-shaping: a place-based approach to sustainability transformation

Transformation to sustainability is a growing debate in sustainability science, leading to what has been termed the “Transformative turn” in contemporary sustainability discourse (Blythe et al. 2018). Scholars increasingly argue that incremental changes will be insufficient to meet the challenges of sustainable development and that a more fundamental, transformational change will be needed instead (Marshall et al. 2012; O’Brien 2012). The term is still lacking a clear definition in the sustainability literature and is often used as a mere metaphor (Feola 2015). Despite this critique, transformation is generally understood to be a complex process that involves a systemic or paradigm shift (Lonsdale et al. 2015) as well as change at multiple scales (Folke et al. 2005). In short, transformation refers to change on different geographical scales and policy levels, opening up avenues to drastically different futures.

A relatively clear and comprehensive tool for conceptualising the different dimensions of transformation is the framework based on Integral Theory (Wilber 2005) and adopted by a number of sustainability scholars (e.g. Ballard et al. 2010; Ives et al. 2019; Lonsdale et al. 2015; Retolaza 2011; Riedy 2016). This model allows categorising the various aspects of reality affected by transformation in different quadrants, determined by two dimensions: inner vs. outer, and individual vs. collective. The resulting four quadrants, thus identified, are: subjective (inner-individual), involving personal transformation of mind-sets, identities, emotions and feelings; objective (outer-individual), concerning the transformation of relationships and interactions with the socio-political environment; intersubjective (inner-collective), regarding the transformation of collective patterns of thinking, culture, and shared understandings; and inter-objective (outer-collective), or the transformation of systemic structures and procedures (Retolaza 2011).

We find this model useful as it enriches the sustainability debates with an (inter)subjective dimension and helps us to understand the key conditions needed for transformation. However, the model itself does not suggest how this transformation could happen. Here, we argue that the concept of place-shaping is a useful way to understand transformation in a place-based way. By place-shaping, we generally indicate any process that shapes places materially or immaterially via individual and collective relations that stretch beyond geographical or territorial boundaries. Although sometimes understood as a synonym for strategic spatial planning (e.g. Shucksmith 2010), place-shaping is more than that. Far from only emphasising the material aspects of place and its physical change—or the outer dimension—place-shaping is rather a way to build people’s capacity to reflect

on and (re)negotiate the conditions of their engagement in places (Horlings and Roep 2015), including their values. Place-shaping is considered as a potentially transformative act which involves the inner dimension of transformation, in the sense that every modification of a physical space not only affects the material landscape, but also its related socio-cultural associations (Jones and Evans 2012).

When dealing with place-shaping in the context of sustainability research, a question arises: what makes a process of place-shaping sustainable? Places are influenced by market relations, social–cultural interactions between people, power relations and policy processes. These processes also provide the space for people to position themselves towards these processes and perform place-shaping practices which can be more or less sustainable. Via the practices people are involved in, they change social relations in networks on multiple scales, thus shaping or changing places. So these practices create connections between nature and society, the local and the global, the rural and the urban (Roep et al. 2015; Horlings 2019). Examples are local, organic food products, craftsmanship specific for a locality or region, nature-inclusive agriculture; agreements for the provision of ecosystem services such as green care adapted to the specific context (Moriggi 2019); and local citizen initiatives supporting energy transition (Soares da Silva et al. 2018).

Additionally, we propose that place-shaping requires a procedural definition of sustainability (Miller 2013), an acknowledgement that “the process of making decisions matters as much as the end results of decisions” (Schroeder 2013, p. 131). According to this definition, sustainability is a context-dependent construct, co-defined by the actors involved in the process (Rotmans, quoted in Miller 2013), an “emergent property of a discussion about desired futures” rather than an essence or a specific goal (Robinson, quoted in Miller 2013, p.284). Who gets to decide what kind of future the transformation should lead to, and what this future looks like, are important questions to address in place-shaping processes, in order to avoid the latent “risks” connected to transformation discourse (Blythe et al. 2018). Aside from the environmental, economic, and social effects of specific intervention, the societal values of a community ultimately dictate whether a process of place-shaping is sustainable, and which pathways are considered desirable in a specific context (Miller 2013). In other words, sustainability itself is place-based (Horlings 2018).

In the context of this procedural and place-based notion of sustainability, sustainable place-shaping can be understood as a double process, as shown in Fig. 1: on the one hand, place meanings and values can purposefully be “shaped” in a way that is consistent with more sustainable lifestyles—through the promotion of more equitable, inclusive, or environmentally conscious meanings and values; on the other hand, practices and intervention that shape the material

dimension of places should do so in a culturally sustainable way, consistent with existing values and meanings of place. Both dimensions are interconnected, according to the notion that the material and the social are mutually constructed (Jacobs 2006; Jenkins 2002; Jones and Evans 2012).

The four quadrants of transformation offer a useful lens to analyse place-shaping processes. Place-shaping deeply affects the intangible dimensions of place—such as the symbolic meanings and values with which places are imbued, or the individual and collective sense(s) of place (Horlings 2016a). People’s ideas and feelings about their place, their sense of place, the meanings and values they attach to a place are affected by change; on the other hand, these inner aspects of the experience in place influence and shape people’s desires for the future, and influence the type of actions they are willing to take. Given the scale of the transformations required to adapt to the current sustainability challenges, it is inevitable that different individuals and groups will hold conflicting goals and visions for the future (Chapin and Knapp 2015; Meadowcroft 2009). This has been identified as a potential risk (Blythe et al. 2018), and the literature suggests that when implicit values and meanings of places are not acknowledged and respected, conflict and hidden agendas are likely to permeate the decision process (Schroeder 2013).

Grounding place-shaping in an open discussion of sense of place and values sheds light into these immaterial aspects of place that are often not acknowledged in sustainability debates. Both sense of place and place values emerge from people’s interactions with their social and environmental settings (as will be explored in the following section), and therefore, these constructs highlight the connections between inner and outer, individual and collective dimensions of

place which are all affected by transformation in place-shaping processes.

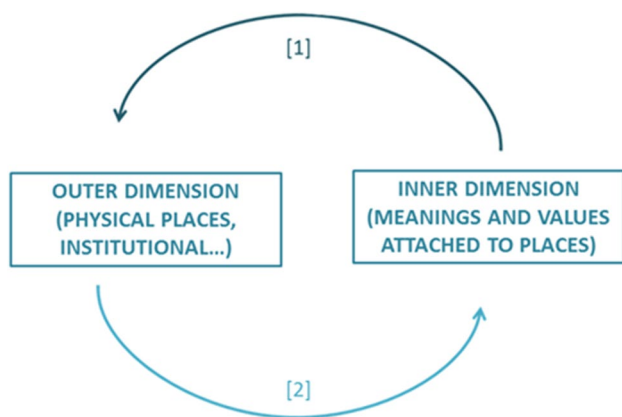
## The inner dimension of place-shaping

Understanding the variety of meanings and values embodied in places has been recognised as a crucial aspect of place-shaping processes (Williams 2014). Both in the context of formal planning interventions and in the case of bottom-up citizens initiatives, gaining knowledge of the place meanings and values expressed through the local culture is essential (Horlings 2015a). Including a discussion of sense of place can bring to the fore symbolic and emotional dimensions of place-shaping, often overlooked in favour of the more visible, tangible physical modifications (Davenport and Anderson 2005).

There is definitely potential for linking sense of place to place-shaping research. The literature suggests that sense of place can foster pro-environmental behaviour, as people are motivated to protect places that are meaningful to them (Manzo and Perkins 2006; Mihaylov and Perkins 2013). Emotional bonds to place have been correlated to both the intention to maintain valued qualities of the environment (Devine-Wright 2009; Stedman 2002), and the willingness to actively contribute to the solution of potential environmental problems (Kaltenborn 1998). Moreover, past research suggests that such emotional attachment to place can motivate people to identify novel solutions for change towards a sustainable future (Marshall et al. 2012).

However, we must be cautious in uncritically assuming that a strengthened sense of place will result in more sustainable practices. In fact, although place-protective actions are sometimes beneficial, they can also have negative consequences. Conflicting place meanings can be the source of natural resource management controversies (Cheng et al. 2003), or inspire local opposition to renewable energy developments (Devine-Wright and Howes 2010; Vorkinn and Riese 2001). There is promising evidence that, when sustainable innovations are consistent with the place meanings already present, the opposite is true: in these instances, sense of place can help achieve change and sustainable development (Devine-Wright 2011).

Similarly, values play an important role in motivating people towards sustainable transformation (Dessein et al. 2015), including place-shaping. All discussions on sense of place are rooted to a certain extent in a notion of place values, since “to say that someone has an ‘attachment’ to a place is to say that they value the place in a certain way” (Schroeder 2013, p. 126). Therefore, a case can be made to include individual and collective place values in place-shaping research and practice. Jones et al. (2016) explore the role of values as a driver of change, and identify two



**Fig. 1** The double process of sustainable place-shaping, involving inner and outer dimensions of place. [1] Place meanings and values shaping the physical transformation of places; [2] physical transformations in places shaping local meanings and values

main ways in which the study of values can contribute to decision-making. These two ways, which are also relevant in the context of place-shaping, are: (a) to enrich participatory decision-making, by including an explicit discussion that would offer potential for solutions that are more consistent with local values, and (b) to build acceptance for top-down decisions, by tailoring and promoting expert strategies in a way that is significant to the specific local context. Clearly, this is not meant to promote cynically instrumental or manipulative approaches; rather, it suggests the need to make a conscious effort in framing sustainability initiatives or interventions in a way that resonates with the people that will be most affected.

Moving from these findings, we propose that both sense of place and values play a significant role in processes of sustainable place-shaping. However, current research linking sense of place or values to sustainability is carried out predominantly in the fields of environmental management or conservation. This, in our view, constitutes a limitation, as these strands of literature often define sense of place and values in a narrow way—for instance as “qualities” or “aspects” of the environment to be measured and assessed quantitatively. In the rest of this section, we will define these two concepts more broadly, engaging with the literature on both sense of place and values that is relevant for sustainable place-shaping and transformation.

### Sense of place

Sense of place is a construct often used in social science literature to refer to the collection of meanings and emotions that people assign to a particular setting (Jorgensen and Stedman 2011; Masterson et al. 2017; Tuan 1980). Given the range and variety of disciplines that have approached the study of place, the concept has been associated with a number of different definitions, and some authors have criticised it as incoherent and inconsistent (Jorgensen and Stedman 2006; Stedman 2003). Convery et al. (2012) identify two broad classes of meanings attributed to the construct: the first defines sense of place as a unique essence of character that is specific to a location and dependent on a series of factors; the second uses the term to emphasise the way people experience, use, and understand place.

The various disciplines concerned with place research have employed an abundance of different terminologies for very similar and often overlapping concepts. To cite a few: place attachment (Altman and Low 1992); sense of community (Cattell et al. 2008); place identity (Proshansky et al. 1983); rootedness (Tuan 1980); and genius loci (Norberg-Schulz 1980). Human geography and the design fields have mostly used the notion of sense of place—in its highly qualitative, complex and involved conceptualisation—to designate the general domain of research (Relph 1997; Tuan

1980), whereas for instance in environmental psychology, place attachment has been dominant as the covering term for the broad domain (Lewicka 2011; Manzo and Devine-Wright 2013; Scannell and Gifford 2010). The latter term can be particularly confusing at times, because place attachment also refers more narrowly—in cognitive models—to a specific component of the overall relationship to place (Jorgensen and Stedman 2006). A complete categorisation of these overlapping concepts is beyond the scope of this paper especially because it has been noted that, regardless of the terminology used, the themes underlying the description of the people–place relationship in the literature are all interconnected, and strong emotional ties to places result central across contexts (Kyle and Chick 2007).

Definitions of sense of place are affected by the researcher’s epistemological stance (Kyle et al. 2014), which is often implicitly assumed within a certain research tradition. For instance, researchers within environmental and social psychology have mostly focused on the identification of several components of sense of place—such as attachment, symbolic meaning and satisfaction (Stedman 2002), or identity, attachment and dependence (Jorgensen and Stedman 2006)—and measured the contribution of each to the overall intensity of the people–place bond. This line of inquiry lies within the post-positivistic tradition, which requires narrow and precise definitions that allow for quantitative operationalisation—sometimes going as far as operationally defining the concept as home ownership and length or residence (Taylor et al. 1985). On the opposite end of the spectrum, the phenomenological tradition rejects the very notion that sense of place is a concept suited to a precise definition (Patterson and Williams 2005; Relph 1976; Seamon 2013).

It is important to keep in mind that different research traditions and their related assumptions affect the conceptualisation of the nature of the people–place bond (Kyle et al. 2014). This notion can help bring clarity to the apparent inconsistencies in the myriad definitions used, inconsistencies that can be overcome by embracing the notion of “critical pluralism” (Patterson and Williams 2005). According to this perspective, the adequacy of each research should be assessed against its specific theoretical framework, and its appropriateness to the stated objective of the research (Williams 2014), without necessity of integration and synthesis across different research programmes. Multiple and even conflicting definitions can therefore coexist.

Based on this review, we position ourselves in this debate by broadly defining sense of place as the collection of meanings and emotions attached to a place, held by individuals or groups (Tuan 1980). By taking a socio-discursive approach to the study of sense of place, we mainly focus on meaning and meaning-making (Patterson and Williams 2005; Williams 2014). This approach draws from early work on sense of place (Relph 1976, 1997;

Tuan 1975, 1980) and is informed by the qualitative tradition in environmental psychology (Bailey et al. 2016; Di Masso et al. 2013; Gustafson 2001; Manzo 2003; Rishbeth 2013) and by more recent conceptualisations that emphasise the importance of place meanings (Masterson 2016; Masterson et al. 2017a, b). Importantly, we do not see sense of place as a pre-given characteristic of a specific location, but rather as a process that, as place itself, can be shaped over time (Jones and Evans 2012; Seamon 2013).

Place meanings can be seen and understood as the product of relational processes involving individual people, their setting and their social world (Kyle and Chick 2007). These three elements are sometimes termed differently, but often present in discussions of sense of place; for instance, Gustafson (2001) understands sense of place as the dynamic interplay of self, others and environment, which constitute the three poles of his triangular model. Gustafson (2001) developed this model through an extensive literature review coupled with empirical findings from a qualitative study. Its stated aim is that of understanding, organising, and comparing place meanings for analytical purpose. The main feature of Gustafson's triangular model is that the three poles of self, others, and environment are not understood as distinct categories, but rather as extremes of a fluid space—in which the relations among the three are acknowledged. The purpose is to avoid simplified categorisations and to allow analyses that recognise the plurality and complexity of meanings (Gustafson 2001). Relevant dimensions of sense of place can thus be mapped along and in-between the three poles, and not just sorted across three distinct categories.

We propose that Gustafson's model is particularly suitable for the inclusion of sense of place and particularly place meanings, in studies of place-shaping, as it offers a tool to easily understand and compare meanings across settings, or across different individuals and groups in the same place. Mapping meanings across the three poles can be useful for identifying important aspects of the interaction with place in specific contexts—at both the subjective and inter-subjective levels. In place-shaping processes, it can be used to understand and compare sense of place across different interest groups or in different contexts. In the next section, we will propose that it can also be extended to the analysis of place values, therefore providing a useful lens for the study of the inner dimension of place-shaping.

## Place values

Despite calls for a new research agenda in this sense—specifically in the context of place-shaping (Horlings 2015b; Larson et al. 2013)—studies that link values to sense of

place are scarce. Past attempts to link sense of place and landscape values suggest potential for the combined study of these concepts (Brown and Raymond 2007; Brown et al. 2015; Raymond et al. 2011). For instance, Brown et al. (2015) propose that mapping place attachment and landscape values constitute two related methods of assessing the importance of place, which can both have practical implications for planning decisions.

However, it is worth noticing that the way these authors conceptualise values (as landscape values or values home range) or sense of place (as place attachment, seen as the strength of the personal bond to a place) is often concerned with (quantitative) assessment, measurement, and evaluation. By contrast, in the previous section we reviewed sense of place through a socio-discursive lens, with a focus on meaning and meaning-making. These two approaches are hard to reconcile, given their incompatible epistemological assumptions, but we believe that both can uniquely contribute to the debate and to the advancement of our understanding of what contributes to sustainable place-shaping. In the rest of this section, we provide a brief overview of the concept of value in sustainability literature and define place values that inform and underlie sense of place and place-shaping.

Values are generally defined as guiding principles in life, motivational goals that transcend specific situations—also indicated as “human values”, to differentiate from the economic notion of value (Corner et al. 2014). Similarly to sense of place, values have been the object of study from many different disciplines and subject areas, which have produced multiple and sometimes conflicting definitions and models. For instance, while in the social sciences values are understood as human constructs, residing within individuals, in the fields of ecology and environmental management it has been more common to talk about the intrinsic or inherent value of nature, independently from human perception (Jones et al. 2016; Klain et al. 2017; Reser and Bentrup-perbäumer 2005).

In the environmental literature, a distinction is often made between held and assigned values (McIntyre et al. 2008; Raymond and Curtis 2013). First conceptualised by Brown (1984), this distinction sees held values as the mostly stable, enduring concepts of what is preferable, similar to the psychological notion of values as basic principles that guide action (Schwartz 2012); conversely, assigned values express the relative importance of an object to an individual or group. It is interesting to notice that Brown (1984) had originally identified a third value concept that he named relational values, arising from a preference relationship between a subject and an object in the realm of the lived experience. However, as noted by Schroeder (2013), most of the literature citing Brown tends to focus on the distinction between held and assigned

values and to ignore the notion of the relational realm. This is recently changing, with a renewed interest in a relational understanding of values (Chan et al. 2016; Corner et al. 2014; Klain et al. 2017). This growing literature tends to see relational values as a separate category of values (Corner et al. 2014; Klain et al. 2017), made up of those values that are relational in content (Chan et al. 2018): values where the relationship itself matters, such as the value of kinship between humans and non-human nature. Chan et al. (2018), however, point out that in his seminal text, Brown (1984) wrote about the relational origin of values, or rather the fact that all values stem from a relational process.

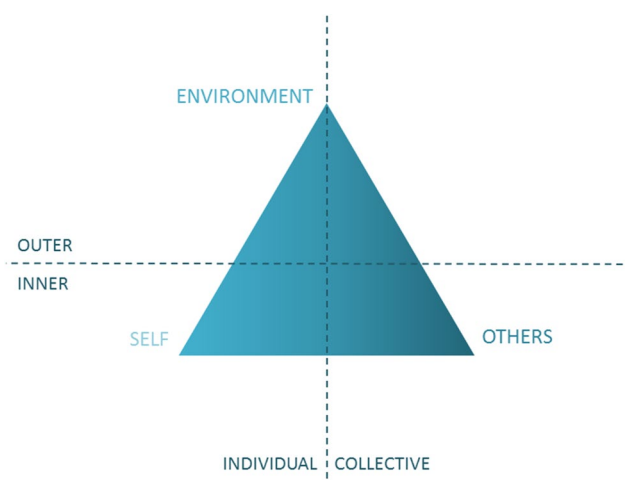
While there is currently much scholar attention dedicated to relational values, in our discussion on the role of values for place based transformation we take a step back, and look not so much at those values that are relational in content, but rather at the relational process that leads to the creation of value in places. Much like Brown, Ioris (2012) argues that values can only be understood in relational terms, as contingent attributes that emerge from the intersection between individual and collective preferences in specific contexts. Values in this sense have a “geography”, as they are constructed through the interaction of individuals and structures in a specific place (Davies 2001). Schroeder agrees that all values are inherently relational and defines them as “the immediate, subjective feeling of importance, worth, or significance that something has for an individual” (2013, p. 77). Values in this sense are not independent objects, such as they are conceptualised in the psychological literature. Rather, they are context-dependent, culturally varied and connected to how we perceive ourselves and the world (Horlings 2016b). Our position is that this understanding of values as relational, context-dependent, and based on an immediate feeling of importance can inform our understanding of place-shaping and of sense of place. To distinguish them from the most widespread definition of values, or even of relational values, we call them place values.

The three dimensions identified in Gustafson’s model of sense of place (see Section “Sense of place”) have clear similarities with Ioris’s (2012) understanding of the dynamic nature of values—seen as emerging from the relational interaction between individual (self) and collective (others) preferences in specific contexts (environment). Given this similarity, we propose that both sense of place and place values can adequately be understood through the lens of the triangular model, as we will explore more in detail in the remainder of this paper.

## Sustainable place-shaping and transformation: a synthesis framework

Many authors have argued transformation requires change across many dimensions and at different scales (Ballard et al. 2010; Lonsdale et al. 2015; Moore et al. 2015). It has been suggested that the four-quadrant model is a suitable framework for transformation. However, the model presents four groups of aspects potentially affected by change as distinct categories (see, for instance, Retolaza 2011) and does not explain how change would take place. In order to take a more holistic and dynamic view on transformation via sustainable place-shaping, we propose to integrate the four-quadrant model of transformation with Gustafson’s (2001) triangular model of self–others–environment. The synthesis of these two models, as shown in Fig. 2, constitutes an analytical tool that conceptualises sense of place and place values as potential drivers for place-based transformation.

This synthesis framework places the triangular model at the intersection of the four quadrants of transformation. This can seem counterintuitive, considering that the triangular model represents sense of place and place values, which are inner concepts. As such, one could expect Gustafson’s model to be positioned in the lower half of the figure, corresponding to the inner dimension. However, positioning the tri-polar framework at the intersection, like in Fig. 2, allows us to show the connections between the transformation quadrants and the contextual factors determining sense of place and place values. In this light, the poles of self and others overlap with the inner-individual and inner-collective dimensions, respectively; the part of the framework that connects self with environment can be



**Fig. 2** Analytical framework to operationalise research on sense of place and values for sustainable transformations. Inspired by Gustafson (2001); Lonsdale et al (2015) and Wilber (2005)

seen as coinciding with the outer-individual quadrant, and the others–environment with the outer-collective. Analysing sense of place and place values on the tri-polar framework can be more than just an instrument for the study of the inner dimension of place; rather, by connecting these two aspects that have been found critical for understanding sustainability transformations, the framework can highlight the connections between inner and outer worlds, and the inter-linkages between different quadrants. The fluid nature of the tri-polar framework, when combined to the four-quadrant model, confers it a dynamic quality that is not yet present in its current formulation. It highlights how all aspects of transformation are intimately interconnected, and how change in one corner is always necessarily linked to change in all others. This, in our view, constitutes an advantage, as it potentially supports a more holistic and dynamic understanding of transformation processes.

The framework provides an approach to connect sense of place and place values to transformation dimensions, and in this way it allows identifying potential pathways of transformation, rooted in what is important and meaningful for local communities. Consequently, the synthesis framework can provide a tool to investigate and map existing meanings and values attached to places by individuals and local communities. In the context of place-shaping, this provides a lens through which potential points of intervention and transformation pathways can be identified. Moreover, these explorations will allow a diversity of voices to be heard, which can lay the ground for a fruitful debate on the possible futures of the places. In our current work, we are using this framework as an analytical tool in a process that explores ways to engage a community in discussion about desirable futures (Grenni et al. 2020). Through a series of workshops, organised alongside a local planning process in the Finnish municipality of Mänttä, we prompted participants to express important meanings which they attach to their town, and the underlying values that determine their importance. Based on this first exercise, we then asked participants to craft new narratives of desirable futures, using creative art-based methods (Pearson et al. 2018) to help them disengage from dominant narrative frames. In this context, the framework was used as a way to map the meanings and values expressed in the first part of the workshops and systematically connect them with the transformative visions for the future expressed in the second part.

The synthesis we presented in Fig. 2 is a conceptual model and needs to be further corroborated by empirical research. By focusing on the connections between sense of place, place values, and the four quadrants, our proposed approach opens up an avenue for innovative empirical questions, such as:

- (1) How are sense of place and place values expressed in spatially varied ways, either across groups in the same place, or in different cultural and institutional contexts?
- (2) How can the knowledge gained about local sense of place and place values inform the choice for spatial intervention strategies and preferred pathways of transformation?
- (3) How can specific place-shaping initiatives be framed in a way that will favour their public acceptance, based on a commonly shared sense of what is important and considered valuable?

Arguably, this approach also promotes an appreciative view of local meanings and values, challenging a common understanding of these concepts—specifically of sense of place—as potential barriers to change (e.g. Marshall et al. 2012). Adopting a framework compatible with definitions of sense of place and values as context-dependent—and therefore variable across different groups and over time—can help approach these as potential catalysts for transformation in concrete settings and places.

## Conclusions

Our starting point in this paper has been the proposition that an understanding of the plurality of meanings and values held by different actors in places is essential for achieving sustainable place-based transformation. Different transformation pathways might not resonate in the same way with different sets of meanings and values, resulting in potential controversies and conflict (Cheng et al. 2003).

Throughout the paper, we made a case for the study of sense of place and place values in the context of research on place-based transformation. We underpinned the relevance of the inner dimension in processes of sustainability transformation in general, and of sustainable place-shaping in particular. We then briefly reviewed the studies on sense of place and connected it with relevant literature on human values. We highlighted how specifically place values relate to and contribute to sense of place, and how both concepts can inform the wider sustainability debate. Finally, we proposed an analytical tool for the study of sense of place and place values as drivers of sustainability transformation, with impact beyond the inner dimension of transformation.

While other approaches focus mainly on the “outer” dimensions of transformation, such as behaviour and institutional change, we propose to focus on how these outer dimensions are linked to and informed by the inner dimensions of individual and collective intentions, meanings and values. This has been visualised in the three poles of self, others, and environment—which are not separate boxes, but rather extremes of a fluid, relational space, in which change



in one quadrant naturally links to change in all others. Inner and outer transformations, individual and collective values, are all thus intimately connected and intertwined.

Concluding, we argue that the approach proposed in this paper has a double value. Firstly, it can provide a lens for empirical questions, based on an appreciative understanding of sense of place and place values in relation to place-shaping. Potentially, this can overcome current barriers such as resistance to change by opening up place-based pathways to sustainability. Secondly, the integration of the concepts of sense of place, place values, and sustainable place-shaping is an alternative to existing models of (place based) transformation, as it provides a more dynamic view of the different aspects involved, opposed to the static interpretation of the four-quadrant model. The framework in this respect can be used to gain a deeper understanding of what is valued and by whom, and in regard to what, laying the ground for socially and culturally just transformation.

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