



The power of place in understanding place attachments and meanings

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ABSTRACT

This contribution to a spatial theory of sense of place is an invitation to seek a better understanding of the importance of physical and concrete places in dynamic territorial attachments and meanings. The objective is to build a theoretical and methodological framework embracing a spatial approach to relations with place, and of testing it on different territories. From 130 individual interviews conducted in four rural areas, this article provides four main scientific insights: (1) a theoretical input through clarification and classification of seven concepts involved in the interactions between people and places; (2) a framework proposition in order to highlight the important role of place in defining sense of place; (3) an empirical input, with a comparative multiple case analysis; and (4) schematic representations of place attachment (based on place dependence and place identity) and place meaning (based on liked, disliked and notorious entities). Such results may be of interest to both land-use planners, in order to match facilities to affinities, and to inhabitants themselves, as tools for dialog.

0. Introduction

As subjects such as globalization, increased mobility, spatial homogeneity and the loss of cultural specificity began to emerge in the contemporary period, a question arose to torment researchers: does the notion of “place” still mean something to individual people (Beatley, 2004; Casey, 1998)? In spite of the rise of what Augé (1992) called “non-places”, the answer to this question is affirmative: places have not lost their significance. On the contrary, the notion of “place” in the modern world has regained its value, especially in neighborhoods, villages and small towns (Janz, 2005; Kruger and Jakes, 2003). “Place” refers to a space which has acquired a significance via processes which are individual, collective or cultural (Tuan, 1975; Stedman, 2003): multi-sensorial memories, symbols and experiences lived and felt on site, what Norberg-Schulz (1980) called “a total qualitative phenomenon”. Similarly, Leonard (2013) defines a place as a set of spaces transformed into a meaningful location through peoples’ experiences and ideas. It is therefore a term bridging many disciplines, with the inclusion of both the objective and the subjective aspects of the relationship between humans and their natural habitat, or home (Bott et al., 2003). Therefore, the concept of place implies human existence and can be defined as the association of spatial structures with people’s experiences.

However, as encompassing and central as it appears and despite its evident role in understanding societal functioning, the role of place remains poorly considered and is not clearly understood (Kyle et al.,

2014; Manzo and Devine-Wright, 2014; Wirth et al., 2016) in studies aiming to comprehend the people-place interactions. Two observations may be made: firstly, a certain confusion arises among the numerous and sometimes overlapping concepts used in the literature to decrypt people-place interactions (Restall and Conrad, 2015; Trentelman, 2009, etc.); secondly, relations with place are more often seen through social rather than through spatial ties (Fried, 2000; Lewicka, 2011, etc.), and the place itself is commonly set aside. To provide some response to these two statements, the first objective of this paper is an attempt to clarify the different concepts involved in interactions between people and places. Based on this clarification process, the second objective of the paper is to propose a theoretical framework which embraces a spatial approach to relations with place and also encompasses different dimensions of people-place interactions. In order to test its robustness, this framework is tested on four different case-studies thus allowing a multiple-case analysis. Different insights are forecasted in this contribution. Theoretically, with our framework highlighting the power of place within people-place interactions, we aim to contribute to build a spatial theory of sense of place. Empirically, the comparative analyses of sense of place on different case studies shall lead to schematic characterizations of place attachment and place meaning. Globally, we argue that there is a need for novel conceptual developments focusing on the power of place in understanding place attachments and meanings, which may be of use to both research and land-use planning.

Section 1 presents a review of the literature concerning social and spatial approaches to relation to place. Section 2 exposes a clarification

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study of seven relation-to-place concepts, which provide the basis of our theoretical framework presented here. Section 3 presents our cases and methods based on qualitative approaches and individual interviews. Our results are presented in Section 4, as a comparative analysis of place attachments and place meanings through four case studies. These results are then discussed in Section 5, with some limits and perspectives.

1. Relation to place: theoretical bases

1.1. An overall confusion

Two notions lie at the heart of the studies of ties existing between places and society conducted over the last forty years: place attachment (Altman and Low, 1992), and sense of place (Buttimer, 1980). The first is studied mainly in psychology and the second mainly in geography. In addition to the fact that these two concepts are defined and measured in various manners, several other concepts are also used when referring to relations to places, such as place identity (Proshansky et al., 1983), topophilia (Tuan, 1975), place dependence (Stokols and Shumaker, 1981), community attachment (Hummon, 1992), bondedness (Hay, 1998), uprootedness (Fortier, 1999), belonging (Savage et al., 2005), place identification (Schneider, 1987), sense of community (McMillan and Chavis, 1986), place appropriation (Ripoll and Veschambres, 2005), connectedness to nature (Mayer and Frantz, 2004), community identity (Puddifoot, 1994), spatial identity (Relph, 1985), place identification (Schneider, 1987), place memory (Lewicka, 2011), place expectation (Milligan 1998), place satisfaction (Stedman, 2002), place affect (Halpenny, 2010), place social-bonding (Scannell and Gifford, 2010), etc.

This non-exhaustive list shows the considerable variation with which researchers approach people-place interactions, with contrasting epistemologies, theories and methods. As Jorgensen and Stedman (2006) assess, numerous and somewhat similar place variables are referred to in the literature, as well as some variation in the definitions of the same place concepts. This situation thus shows that no systematic theory of place has emerged (Patterson and Williams, 2005; Devine-Wright and Clayton, 2010). Depending on the particular components being investigated, researchers have tended to create their own measures, resulting in an abundance of indices (Hidalgo and Hernandez, 2001; Jorgensen and Stedman, 2001; Williams and Vaske, 2003).

Among the numerous approaches to place theory, three main ones can be distinguished which are all criticized and therefore appear to be incompatible (Morgan, 2010). First, the phenomenological and humanistic approaches explore the deeper significance of place to human existence and the subjective, emotional quality of people's relationships to places (Norberg-Schulz, 1980; Relph, 1976). A second tradition, which Patterson and Williams (2005) call psychometrics, explores the relationship between the physical environment and the human psyche by attributing numeric measures to place attachment considered as a psychosocial phenomenon. The third tradition, social constructivism, embraces subjectivity while seeing relation to place as a socially constructed phenomenon (Massey, 1994). Although a plurality of approaches may be most appropriate, Manzo and Devine-Wright, 2014, assess the need to consolidate this body of increasingly fragmented empirical work by developing over-arching conceptual frameworks that can encompass different types and dimensions of people-place relations.

1.2. Predominance of the social over the spatial

The majority of scholars working on relations to place conceptualize it as a compromise between two forms: social/civic and physical/spatial/natural (Bricker and Kerstetter, 2000; Gunderson and Watson, 2007; Warzecha and Lime, 2001; Scannell and Gifford, 2010). Some of them question the relationship between these social and natural dimensions (Raymond et al., 2010; Buys and Buys, 2003; Brehm et al.,

2006; Sampson and Goodrich, 2009; Stedman, 2003). Trentelman (2009) observes the disconnect and varying conceptualizations across disciplines which focus either on (1) the socio-cultural dimensions of place (i.e. community-attachment focus); (2) the biophysical dimensions of place (with a focus on setting); and (3) the integration of the socio-cultural and biophysical dimensions.

However, as Scannell and Gifford (2010) and Lewicka (2011) assess, when the question of place attachment, sense of place and related concepts are discussed in state-of-the-art terms, one of the outstanding results is that the social dimension attracts a disproportionate amount of attention in comparison to the spatial. Even though the research community at large recognizes as pluri-dimensional all concepts in studying the relation to place, most studies on this theme concern mainly the social aspects of attachment: people are attached to places that facilitate social relationships and group identity (Woldoff, 2002). Authors emphasize that communities provide the medium through which individuals can develop identity with place and discuss the importance of the social environment in supporting emotional connections with natural environments (Brown et al., 2003; Hinds and Sparks, 2008; Zelenski and Nisbet, 2012). Natural settings determine the context for social experiences which, if maintained in these settings, are likely to lead to higher levels of attachment (Kyle et al., 2005; Ramkissoon et al., 2014). Examples of specific concepts focusing on the social aspects of place attachment are place social-bonding (Scannell and Gifford, 2010), community attachment (Hummon, 1992) or sense of community (McMillan and Chavis, 1986), which all highlight the fact that attachment to a setting would be socially driven (Tumanan and Lansangan, 2012). A relation to a place is therefore studied as a product of shared cultural processes rather than as the result of perceptions anchored in the place's physical characteristics, the real distinction between the social and the physical rarely being established in the literature (Brehm, 2007; Alkon and Traugot, 2008).

A territory's physical aspect is in fact rarely considered as an object of independent study, but is investigated as a support for social relations, as a socially constructed entity, subject to the same rules as social identification (Twigger-Ross and Uzzell, 1996). Even in geography, the cultural geography shift transformed the environment ontologically, from an objective reality that could accurately be described, to a conceptual construction (e.g. Cosgrove, 1984) and a product of socially related perceptions (e.g. Smith, 1991), including values and norms that differ between various social contexts. These forms of social constructivism, largely dominating the social sciences today, tend to leave physical realms aside (e.g. Olwig, 1996; Sack, 1997; Thrift, 2008) and produce a powerful denaturalizing effect (Trom, 2001). To say that an entity or a fact is constructed is to render it fragile by removing its character as evidence (Stedman, 2003). Thus, the role of the environment in the dynamic of communities is little mentioned in the literature; yet, societies are composed of individuals with their own histories, values, identities and attachments which can only develop within a place (Stokols and Shumaker, 1981) and we wish here to rehabilitate the role of place in understanding relations to places.

1.3. For a spatial approach to relations to place

Some authors such as Canter (1997a,b) or Stedman (2003) claim that the influence of physical attributes on psychological and behavioral processes deserves more attention. Similarly, for Lewicka (2011) the result of perceptual and cognitive processes rooted in physical characteristics of settings has been poorly explored. Droseltis and Vignoles (2010) also point out the existing over-emphasis on the social dimension of place attachment, at the expense of studying the influence of place characteristics and their variation over time.

As such, nature bonding is a field of scholarship which highlights the importance of connections to the environment and which can be defined as "an implicit or explicit connection to some part of the non-human natural environment, based on history, emotional response or

Table 1
Clarification of relation-to-place concepts.

Place	space which derives meaning through cultural processes, social bonds, feeling and emotions (Altman & Low, 1992; Stedman, 2003). Places include the geographical location, human activities rooted in the setting (Relph, 1976; Gieryn, 2000) and the physical parameters (including size, scale, components, diversity, odor, noise, temperature, etc.) (Steele, 1981). Human activities transform places into both a center of meaning (based on thoughts) and a focus of human attachment (based on emotions) (Tuan, 1977; Entrikin, 1976)
<i>Key author:</i> Relph, 1976	
Sense of place	can be conceived of as a general attitude toward a spatial setting embodied by a collection of symbolic meanings and attachments with a place held by an individual or group (Trentelman, 2009; Jorgensen & Stedman, 2001). Sense of place is both a spatially localized phenomenon (Farnum et al., 2005) and a universal affective tie (Relph, 1976; Tuan, 1975) that includes ancestral ties, feeling like an “insider,” and a desire to stay in the place (Hay, 1998).
<i>Key author:</i> Buttimer, 1980	
Place attachment	is defined as an emotional connection between individuals and particular places (Altman and Low, 1992; Cuba and Hummon, 1993; Hidalgo and Hernandez, 2001; Mesch and Manor, 1998) which is of an enduring nature and varies over time as the individual's identity and dependence changes (Giuliani, 2003). This multidimensional concept integrates components related to the psychology of the individual (behavioral, cognitive and affective dimensions) and to the specificity of place (scale, natural and cultural objects, the countryside) (Scannell and Gifford, 2010)
<i>Key authors:</i> Altman & Low, 1992	
Place meaning	is comprised of the descriptive elements of the setting: what it is, rather than how attached one is to it (Brehm et al., 2013). People make places the center of symbolic meanings (Greider and Garkovich, 1994; Stokowski, 2002; Schreyer et al., 1981), at the interface between the physical properties of a place and the force of the emotional and social ties associated with it (Beery and Wolf-Watz, 2014; Newman et al., 2017). As Manzo (2005) says, “it is not simply the places themselves that are significant, but rather what can be called ‘experience-in-place’ that creates meaning”
<i>Key author:</i> Manzo, 2005	
Place dependence	refers to the ability of a setting to meet instrumental needs (Vaske and Kobrin, 2001). The place becomes a resource for satisfying goals, creating, in turn, a relationship of dependence (Williams et al., 1992), where individuals value places for their functional attributes (Stokols and Shumaker, 1981). This physical connection to a place reflects the degree to which the physical setting provides conditions to support an intended use (Raymond et al., 2010)
<i>Key authors:</i> Stokols and Shumaker, 1981	
Place identity	refers to those dimensions of self, such as feelings about specific physical settings and symbolic connections to place that define who we are (Proshansky et al., 1983). People self-define through places, thereby developing a place identity which arises from particular values, attitudes, beliefs and emotional significance concerning the physical world (Greider and Garkovich, 1994; Williams and Van Patten, 2006). Relph's (1976) concepts of insiderness and outsiderness are useful in conceptualizing the relationship between identity and ties to a place
<i>Key authors:</i> Proshansky et al., 1983	
Place experience	comes from the lived experiences of humans within specific socio-ecological contexts (Allen 2004; Casey 1993; Hubbard et al., 2002) and is based on histories and social processes. Place experiences integrate local practices and rituals performed on specific places (Cresswell, 1996), the role of place in individuals' everyday lives (Gustafson, 2001), the time spent in places (Kals et al., 1999), as well as residential histories (Raymond et al., 2010), and emotional experiences of place (Seamon, 2013)
<i>Key author:</i> Tuan, 1975	
Place satisfaction	multidimensional summary judgment of the perceived quality of a setting, depending on factors such as facilities, visual characteristics, place economic values, place social setting, architecture, social communication, etc. (Stedman, 2002, Mesch and Manor, 1998). Place satisfaction depends on cognition and presents a collection of beliefs, evaluations and judgments about the place, including place expectation (Milligan, 1998; Chen et al., 2014; Insch and Florek, 2008)
<i>Key author:</i> Stedman, 2002	

cognitive representation” (Raymond et al., 2010, p. 426). Many studies in that domain concern tourism studies and analyze visitors' perceptions of nature (Ramkissoon and Mavondo, 2017; Kyle et al., 2004; Moore and Graefe, 1994, etc.), mainly through the concepts of environmental identity and connectedness to nature. Environmental identity theory (Clayton, 2003), which relates to the biophilia hypothesis (Kellert and Wilson, 1993), describes people's experiences with nature as integral to one's sense of self and well-being (Nash, 1990; Zimmerman et al., 1993). Similarly, connectedness to nature describes an affective, cognitive, and/or physical human relationship with nature by using terms such as affinity, commitment, ecological self, inclusion, relatedness, and sensitivity (Schultz et al., 2004; Davis et al., 2009; Mayer and Frantz, 2004; Nisbet et al., 2009; Sward and Marcinkowski, 2001).

Nevertheless, our literature review shows that these approaches focus more on nature as a whole than on places. We follow Sack (1997), Beery and Wolf-Watz (2014) or Stedman (2002) in their objective of replacing the elusive concept of nature with the relational concept of place, i.e. a context-specific experience with the more than human world. Instead of seeing nature as a geographically undefined but static material good, places situate nature by including the variety of human perceptions, emotions, and meanings (Keith and Pile, 1993).

Place offers a relational understanding where people and their environments are products of their various connections rather than of some essential self (Massey, 1994). People construct their places, at both the level of representation and materiality; at the same time places do have an impact on the human way of life. As such, places function as facilitators and mediators of certain social relations that condition identity formation and behavior (Agnew, 1987; Sack, 1997). As Michel

Serres (1992) has described it, “by adopting contracts that are exclusively social, we have abandoned the tie which binds us to the real world, one that connects the passage of time with the weather, one that connects the social sciences with the sciences of the universe”. In other words, no human collective exists without things: relations among people take place via things, our relations with things take place via people.

After having examined how elements in the physical environment represent key building blocks for a sense of place among residents of northern Wisconsin, Stedman (2003) encourages an “empirical investigation between aspects of the natural environment, and its meanings.” As he argues, though perceptions of place can be socially constructed, there is an actual physical world that exists that influences our felt attachments to it and phenomenologists have not been aggressive enough in trying to make their claims about place functional, even as the positivists have failed to form hypotheses that shall help us to understand the complex and subjective aspect of sense of place. The power of place, from this perspective, recognizes our dependence on, and connections within, socio-ecological systems.

Though less examined in the literature, the phenomenological approach helps to identify the properties of place that furnish esthetic appreciation, senses and emotions (Tuan, 1975; Buttimer, 1980): the place then acquires its own identity, one that is unique, that creates bonds, and helps to anchor. As Thrift (2008) puts it, context appears to be a vital element in the constitution of affect. Studies of place should not overlook the influence of the physical components of a place on the sense of place (Stedman 2003) or the experiential, interactive and relational components of places (Relph 1985).

2. Theoretical inputs

2.1. Concepts clarification

In order to proceed towards the first objective of this paper, i.e.: clarification of the relation-to-place concepts, we undertook a review of the literature concerning different concepts related to place, and observed the multiplicity of concepts, sometimes overlapping, which may induce an overall confusion within the scholarship domain of relation to place. Like Altman and Low, 1992, or Giuliani and Feldman, 1993, we see this process of clarification as an important challenge to further progress in the field.

Among the numerous concepts found throughout the literature, our state of the art led us to focus on seven relation-to-place concepts, which correspond to the most studied ones: sense of place, place attachment, place dependence, place identity, place meaning, place experience and place satisfaction.

The following table exposes the results of our review. It is worth noting that all these relation-to-place concepts interact and differ sometimes in their definitions according to authors or disciplines. In an attempt to limit research fragmentation and to encompass the different approaches of diverse authors (Devine-Wright and Clayton, 2010) we present here the most recurrent definitions found in the literature on which most authors would agree. We begin with the central notion of place and continue with the seven relation-to-place concepts (see Table 1).

2.2. Framework proposition

This clarification reveals certain interactions between concepts, assessing the need to go further and to undertake a classification of these relation-to-place concepts. The figure below attempts to integrate these concepts, with the aim of building an analytical framework to be tested on different and varied territories. The idea is not to integrate all concepts existing in the literature into a single framework, nor to add some new concepts to the already numerous existing ones. The challenge has been to identify the most studied relation-to-place concepts throughout different disciplines and to bring them together within a spatial approach in order to rehabilitate the role of place within people-place interactions (see Fig. 1).

In the line of Proshansky et al. (1983) or Jorgensen and Stedman (2006) who identified physical attributes of places as important influences on an individual’s self- concept, we argue that people influence places as much as places influence people. The idea is to evaluate what a territory provides to actors, by giving the territory “a voice”. Territorial objects (natural or cultural) are seen here as having effects on actor organization and vice versa, the localization of all concerned

implying a project founded on an overlapping of relationships. Following a phenomenological approach, we wish to underscore the importance of studying the ties to physical objects implicated in relations to places. The notion of place thus appears first in our framework.

Williams (2014) criticizes the “often blurry distinction between place as a locus of attachment and place as a center of meaning” (p. 89). We argue that a place, with its different natural and cultural entities, enhances two main phenomena about individuals: emotions (studied through place attachment) and representations (studied through place meanings). Ties to a place are formed through the development of sentiments with respect to the place and endowing them with a particular meaning (Ramkissoon et al., 2013). As Stedman assesses (2003), physical features come to affect the formation of attachments, but it is the meaning that those features represent that forge relations to place.

Concerning place attachment, Altman and Low (1992) considered the range of definitions in the literature and noted that one consistently defining aspect of the concept was its emotional quality; therefore, place attachment covers the feelings and emotions associated with a place. We follow the majority of researchers (Williams et al., 1992; Vaske and Kobrin, 2001; Walker and Chapman, 2003) which have operationalized place attachment using the two sub-constructs of place dependence (connection based on the ability of a place to fulfill certain instrumental needs) and place identity (symbolic connection between the individual and the place that transcends instrumentality). The connection (and sometimes confusion) between place attachment and place identity illustrates the strong ties between identity and emotion (Devine-Wright and Clayton, 2010). Our framework is in line with authors such as Kyle et al., 2014 or Cast and Burke (2002) saying that place identity acts as an important driver of people’s attachment to place, with important conative consequences.

Concerning place meanings, it is represented by the role of place in individuals’ everyday lives (Gustafson, 2001), experiences in the place, local practices and rituals (Cresswell, 1996). As it concerns the cognitive facet of sense of place (representations, beliefs, knowledge, etc.), we analyze place meaning through place experiences (time spent on place, history) and place satisfaction (evaluation of physical features) concerning places. In other words, it is about identifying experiential, interactive and relational components of place (Relph, 1985) as well as perceived value and expectations about a place (Insch and Florek, 2008). People experience feelings of gratification when satisfied with a place which may predict future intentions (McMullan and O’Neill (2010)).

As we have seen, there is currently no clear consensus on the definitions of place attachment and place meanings (Hernandez et al., 2013). Nevertheless, the majority of scholars consider them to be components of a higher order factor that is sense of place, considered as an umbrella or overarching concept (Shamai,1991). When studying the

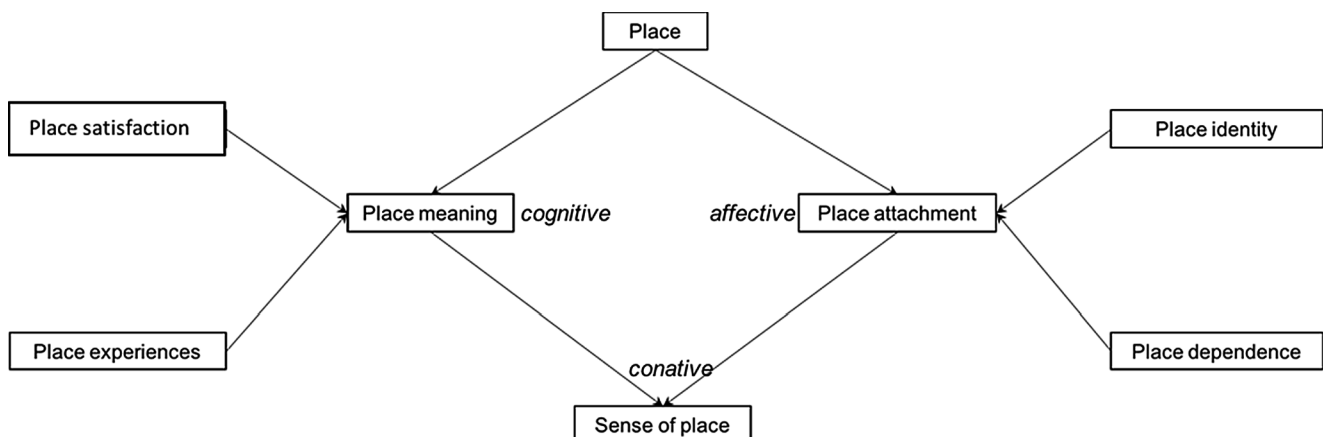


Fig. 1. Framework proposition for a spatial approach to sense of place.

role of physical properties within a relation to place in the literature, it is the concept of sense of place that appears to be the most unifying, highlighting the importance of taking into account both the emotions felt about places (attachment) as well as their representations (meanings). Therefore, our framework presents the combination of emotions and representations as integrated into the sense of place concept. As [Stedman \(2002\)](#) assesses, “meaning and attachment, so often touted as important components of sense of place ([Brandenburg and Carroll, 1995](#); [Relph, 1976](#); [Tuan, 1975](#)), are empirically separable phenomena but have not been treated as such in research. This is a crucial neglect”.

Our framework aligns also with the majority of studies that seek to describe people-place interactions through three dimensions: the cognitive (e.g. beliefs and perceptions), affective (e.g. emotions and feelings) and conative (i.e. behavioral intentions and commitments) facets ([Altman and Low, 1992](#); [Jorgensen and Stedman, 2006](#); [Giuliani and Feldman, 1993](#)). In our framework, the cognitive element is here represented by the meanings sphere; the affective element is represented by the attachment sphere. The conative or behavioral facet reflects individuals’ desire to maintain connections to place and is occasionally evidenced in territorial responses ([Scannell and Gifford, 2010](#)); it is therefore reflected into the sense of place concept which is considered as an attitude ([Jorgensen and Stedman, 2001](#)).

We suggest through this framework, that spatial aspects of sense of place ([Cuba and Hummon, 1993](#); [Syme et al., 2002](#); [Jorgensen and Stedman, 2006](#)) be represented in place research so as to account for variation in the geographic areas and the specific environmental features that individuals and groups give meanings to, are attached to, and hold a behavioral preference for. Of course, all the framework elements interact with each other in different ways which creates a more dynamic portrait in the reality, but we argue that such an attempt at categorization can help researchers or land-use planners to understand the role of place within sense of place. To provide some empirical input, we shall test this framework on different territories.

3. Presentation of method and cases

3.1. The need for a qualitative approach

A large contribution to recent work on place attachment and related concepts has been made by environmental psychologists ([Lewicka, 2011](#)). The strength of this research lies in its range of empirical studies that shed light on patterns of local attachment, but this tradition is dominated by a positivist epistemology, experimental design and cause/effect manipulation which are not always best equipped to capture the affect-rich nature of relations to place ([Tomaney, 2014](#)). Similarly, within environmental connectedness, apart from time spent in the natural environment (e.g. [Kals et al., 1999](#)), there is no recognition of subjective perceptions, attitudes and understandings of the environment that could cause interference with any “nature encounter.” This downgrades the assumption that individuals and groups may differ in their view and valuation of nature and downplays the subjectivity of human experiences ([Beery and Wolf-Watz, 2014](#)).

Yet, the phenomenological model of place that we follow encourages the idea that sense of place will reveal itself in individual attitudes and behaviors, and that place is not susceptible to quantification and prediction because of its subjective source ([Stedman, 2003](#); [Seamon, 2013](#)). The literature on the concept of place historically emphasizes the “lived experiences” of humans within specific social-ecological contexts ([Allen, 2004](#); [Casey, 1993](#); [Hubbard et al., 2002](#)), as place is linked to life histories, social processes, and individual experiences that, in turn, influence our understanding of place ([Haywood, 2014](#)). Due to the potential depth and richness of the information collected, we advocate the use of qualitative methods (such as deliberate investigation into lived experience or ethnographic methods) to characterize the power of place. Even if they are time-consuming, qualitative inquiries are well-placed to shed light on the formation of a local

sense of belonging ([Beery and Wolf-Watz, 2014](#)) and may be able to provide a better understanding of the spectrum of place meanings that participants assign to places, as well as experiences through which these meanings are created ([Brehm et al., 2013](#); [Williams, 2014](#)).

3.2. Individual interviews and analysis

In the field, our qualitative approach consisted of conducting semi-structured interviews of local stakeholders and inhabitants and analyzing their discourse by means of specific grids. We chose to focus our field work on place residents and local stakeholders rather than visitors because, when occupying a place for a long time and multiplying experiences in that place, residents present much richer and more diversified attachments and meanings toward places than visitors do. Furthermore, leisure-based place interactions are more inclined to be positive, and therefore biased, as leisure is associated with concepts such as freedom or intrinsic motivation ([Kyle et al., 2014](#)).

By examining people’s connections to places as expressed through their own words, the subjective, lived experiences people have with nature and their territory can be captured ([Davenport and Anderson, 2005](#)). We wish to explore the individual dimension of sense of place and to thus do justice to the personal identities which have long been poorly studied in geography ([Gustafson, 2001](#)) despite the work of some authors such as [Entrikin \(1991\)](#) or [Jorgensen and Stedman 2001](#), who have highlighted the importance of taking into account the subjective and personal dimension of relations to place. Individual connection with place is not just a function of experience with nature or social interaction with friends and family in setting, but also how individuals construct their own identity through their histories ([Raymond et al., 2010](#)).

Information on how people relate to places is not easy to collect. This is because, firstly, a sense of place is a domain related to emotions, sometimes intimate, that actors do not feel comfortable discussing, and secondly, because the timeframe is important to consider and the researcher will have to grasp the attachments and meanings retroactively in order to have an idea of “how it used to be” ([Sébastien, 2016](#)). In order to overcome this difficulty, our interview guidelines are not based solely on attachment to objects but on territorial challenges as a whole. For the territorial part, our questions are inspired by the patrimonial strategy of [Ollagnon \(1989\)](#) which proposes questions classified in different parts: actors’ activities, territorial characteristics, social system characteristics, local actions, global actions and perspectives. For the attachment part, our questions are inspired by scholars such as [Schroeder \(1996\)](#) or [Cross \(2015\)](#), asking “How would you characterize this place?”, “Explain what these places mean to you.” “How did you choose to stay in/move to this territory?” “Do you feel at home here?” “When you think of the ideal place, what kind of place do you think of?” This territorial approach allowed us to meet with actors from widely differing fields and to reveal place attachment and meanings through territorial questions, either spontaneously, or by means of specific questions (see [Annex 1](#)). Interview questions were designed to explore any significant place associations held by the interviewees; such elements emerged as common themes across the oral histories and, as such, provided important insights.

All in all, between 2005 and 2015 we undertook 130 individual face-to-face, semi-structured interviews with a wide range of local actors in four different rural territories described below ([Table 2](#)). Within each territory, we met actors from different public, private and associative spheres, covering diverse fields: administration, agriculture, hunting, communities, public organizations, industry, fishing, land-owners, protection of nature and research, along with the users of different services. Once we had met with the actors, the interviews were transcribed and the contents analyzed, leading to an exploratory and inductive coding regimen ([Dunn, 2005](#)). Actors’ discourses were first divided into three categories: affective, cognitive and conative ([Altman and Low, 1992](#); [Manzo and Perkins, 2006](#)). The data were then

Table 2
Case studies presentation and number of interviews conducted.

Case studies	Short description	Type of place	Type of people	# of interviews
Forests of Sologne, France	are located 120 km south of Paris. This natural entity of 500,000 ha is dominated by privately owned forests covering 90% of the area. As the soil is sandy and generally poor, agriculture has disappeared from the area. Forest sizes vary considerably, ranging from a few to hundreds of hectares, which implies diversity of types of properties and of forest management.	Forest	Forest landowners	47 (38 forest owners)
Plain of Forez, France	is an agricultural plain traversed by the Loire River and whose landscape is fully anthropized. It is characterized by the presence of former gravel quarries now ecologically rehabilitated as ponds and thus presents some rich fauna and flora. The great issues of the Forez plain are mainly related to water resources (quantity and quality), and to the impacts of intensive agriculture, dikes, gravel removal, dams and canals.	Grain field and gravel quarry	Farmers	13
Southern slopes of Mt. Kilimanjaro, Tanzania	is the highest peak of Africa (5895 m), located in the northeastern part of Tanzania with an exceptional diversity of nature: between the low-lying savanna and the upper tcecap almost all of the world's ecosystems can be found. The mountain provides shelter to the Chagga, a people who have been cultivating parcels on the slopes for centuries. Since the first measurement in 1912, the snowcap has lost 82% of its volume. With the intensification of human activities, the dwindling of the upper altitude forest, the disappearance of snow and the appropriation of resources by new stakeholders, one of the main issues is the beginning of a lack of water.	Mountain	Chagga families	56 (50 Chagga families)
Barthes of Adour, France	is comprised of low-lying lands whose level is 1 m below the level of the area's low waters, and which serve as overflow reservoirs during the floods of the Adour River. Barthes include thirty communities spread along a strip of land 80 km long, following the Adour River from above the town of Dax to the river's mouth at Bayonne. Originally considered an unhealthy, insect-infested marsh, an entire system of hydraulics was installed to keep the land dry and cultivable. Today, three different landscapes characterize Barthes: forest, pasture and urban zones.	Wet grassland	Second home residents	14

organized into thematic categories that were inductively generated on the basis that they represented different forms and sources of sense of place. Globally, the semi-structured interviews and their analysis enabled us to spot the types of objects to which the actors were attached, and to study the convergences and divergences in terms of attachments and meanings.

3.3. Case studies

The phenomenological approach is often reproached for focusing on a single case study at a time (Lewicka, 2011), thus we have attempted here to compile multi-terrain data on four different places which are considered as socio-spatial formations, which is to say geographical entities present in the common sense of the term and objectified by the super-positioning of individual lived-in spaces, eco-systemic entities, and by a mosaic of administrative and political organizations.

Our interview study is designed to investigate in an exploratory way, what places of varying kinds may mean to people, and how people relate to places, therefore we needed different types of places in terms of topology, land use, type of actors, inhabitants, etc. Our four study areas are presented in the table below and were chosen according to the following factors: first, as we focus on physical characteristics of places, we were concerned for each case study to present a different predominant landscape characteristic: forest for Sologne, grain fields and gravel quarry for Forez, mountains for Kilimanjaro and wet grasslands for Adour. Second, we wanted to confront our framework with different types of actors, therefore we were attentive to the social diversity among cases: forest owners for Sologne, grain farmers for Forez, Chagga families for Kilimanjaro and second home residents for Adour. Finally, we wanted to have at least one case study outside Europe, in order to test the robustness and adaptability of the framework to other types of culture or economic context.

In their great diversity, what our case studies have in common is to represent rural zones inhabited by groups; our approach may not be applicable for the measurement of sense of place in urban settings, but it is relevant to natural and rural land-use contexts, which is the focus of this paper. These terrains certainly present widely differing environmental, landscape and socio-economic challenges, but this spread in type of terrain helps to reveal diversity in terms of types of objects that create attachment and meaning. The objective of this approach is not to draw a statistically representative sample, but to obtain a wide range of variation in the responses.

As sense-of-place research is necessarily conducted with reference to a particular group of people in a particular place, drawing general conclusions relies on interpretations of accumulated case evidence. We cannot therefore limit ourselves to a profound analysis of place attachments and meanings based on a single case study and we wish to insist on the comparative and cumulative dimensions related to our field study results.

4. Results

4.1. Place attachment

Different types of varied attachments have been inventoried in function of terrains, the actors attributing their liked entities in the areas of values, of usage and esthetics, or of heritage or existential values, etc. The following section details these results for each study area, and characterizes place attachment by presenting the different emotions associated with the place, as well as the type of place identity and place dependence.

4.1.1. Forests of Sologne

Out of 38 forest landowners interviewed, the majority show a strong emotional attachment to the forest, often going against economic profitability. Fig. 2 presents a typology of forest landowners in Sologne,

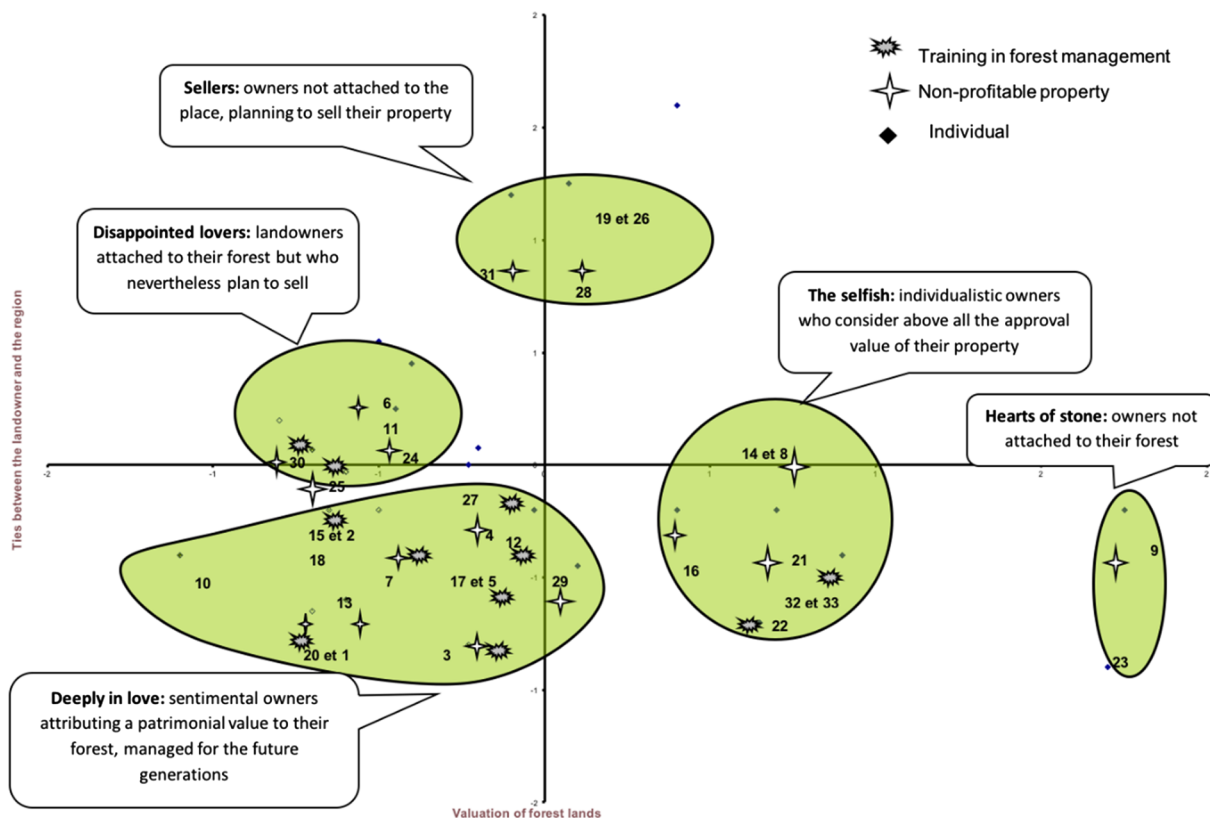


Fig. 2. Typology of forest landowners in Sologne.

undertaken by means of multiple correspondence analysis. Let us note that the majority group is made up of landowners *deeply in love* with their property; we call these owners “lovers”. After several statistical tests, no variable of a structural order emerges (property origin, size, profitability, means of valorization, place of residence, etc.) as a determining factor in this attachment (Sébastien and Ferment, 2001). Though it cannot be explained simply, some landowners manifest their attachment through heritage, or the patrimonial value attributed to the forest; this often reappears in the landowners’ discourse. Others, however, sometimes having no previous relation with the area, purchased a forest plot because of their attraction to this natural entity and for what it represents for them (trees, mushrooms, hunting, etc.). To conserve this precious natural good, forest landowners seek to increase its value. The bond between landowner and forest is not only economic, but also, and above all, a deep sentimental and cultural attachment, the owners attributing to the forest environment a value that is patrimonial as much as it is existential. Even if landowners try to find some economic opportunities for some forest byproducts, their forest is mainly a hobby and not the basis of their livelihood. Therefore, place dependence remains low. On the contrary, place-identity appears strongly, as landowners self-define through their forest and talk about its symbolic aspects defining who they are.

4.1.2. On the Forez plain, to each his own type of attachment

The plain of Forez reveals two types of place attachment. The first is born by actors attached to their living area; they wish to conserve their quality of life, their liberty of action, their traditional countryside and their habits. These actors are attached to a vision of the past, to traditional activities based on a feeling of nostalgia. In contrast, other actors believe in the existential value of nature and are above all attached to the biodiversity of life, not for the well-being of people, but for nature itself. The actors of the Forez plain are attached to different territorial objects, which are sometimes antagonistic. What comes into play is, thus, a marked opposition between *preserving people* and *preserving*

nature, between traditions and biodiversity, between cultural heritage and natural heritage: two attachments that collide and lead to territorial conflicts. Attachment appears to isolate the actors more than it unites them around common values. In this case, though place dependence is high due to land cultivation activities, place identity doesn’t appear clearly as people lack interest in collective actions and do not define themselves through places. Our analyses highlight a strong nature bonding (Raymond et al., 2010) for some actors, but an overall low place attachment for others.

4.1.3. The Chagga people: deeply in love with nature

What emerges from the discourse of the Chagga people is their devoted attachment to the natural elements that surround them, which is to say the river, springs, the icecap and the high-altitude forest. Natural life appears to be seen by the Chagga like a person with whom we have established social relationships. Some case studies underscore the sacred character of certain places to which the actors are particularly attached (Mazumdar and Mazumdar, 1993). This is the case here where a gift from God is often evoked concerning natural resources, thus giving attachment a sacred dimension. In spite of heavy environmental damage on the mountain, the Chagga farmer categorically refuses to leave the slopes of Mt. Kilimanjaro, under no pretext and at no price. They greatly implicate themselves in the protection of resources, and are even prepared to make personal sacrifices to preserve their liked entities, accepting, for example, the violent domination they are subjected to by the National Park. According to Shamai (1991), commitment or sacrifice for a place corresponds to the strongest level of sense of place. In that case, both place dependence and identity are strong. Indeed, the Chagga’s livelihood is based on their *shamba* (agricultural plot) as well as on the springs, forest, irrigation canals and river. At the same time, these natural entities represent unique components of the Chagga’s existence and thus gives them a sense of inclusion in nature which make them perceive the ecosystem as an extension of their home.

4.1.4. The institutionalized attachment of Adour Barthes

Among the actors of Adour Barthes, it is above all an institutional type of attachment that is detected. Faced with the slow deterioration of the local natural environment, institutional conservation and restoration programs were devised and transmitted to managers who implemented them. These actors, sometimes outsiders to the territory, have little by little taken an interest in the region and have become attached to the Barthes heritage, somewhat out of duty. Attachment to the wet grasslands of Adour Barthes has therefore been artificially created through institutional restoration programs for deteriorated environments. It must be said that the original inhabitants—the Barthais—have disappeared, to be replaced by new residents who are accused by all of lacking in attachment to the Barthes region. All in all, attachment belongs to the past; though those who show a profound territorial attachment are rare, everyone criticizes everyone else for their insufficient attachment, convinced that the notion of attachment is a guarantee for preserving the environment. The result is that the territory is losing its identity since very few actors make their living in Barthes, and those who do are critical of the territory; therefore, both place identity and dependence appear low in this area. The Barthes grasslands are becoming a place of projects, without any stable or sustainable identifying relationship between individuals and places.

The following table sums up our results for place attachment in our four case studies (see Table 3). The diversity in terms of emotions, place dependence and place identity is striking. To go further, an analysis of the interactions between these three poles would be welcome.

4.2. Place meaning

In line with authors such as [Stokols and Shumaker \(1981\)](#), [Amerigo and Aragones \(1997\)](#), or [Nasar \(1998\)](#), we explore the objective indicators of the perceived quality of the environment through identification of a listing of environmental factors and specific physical items evaluated either favorably or unfavorably. According to [Manzo \(2003, 2005\)](#), the types of places that individuals find meaningful represent a broad range of physical settings, from constructed environments such as houses, streets, buildings, and non-residential indoor settings, to natural environments such as lakes, parks, trails, forests, and mountains. We agree with the broad range of entities that can enhance place meanings and we observe some form of possible categorization of place characteristics associated with meanings.

Our semi-structured interviews and discourse analysis enabled us to count the number of entities that generate meanings among the actors, and we were able to classify for each territory, both the liked and disliked entities. The combination of individual analyses revealed a third category of objects that are simultaneously liked and disliked according to the actors. We call these ‘polarizing entities’, as their status can cause debates and can make or break social relationships. These entities are important to identify as they reveal potential stakes and conflicts within the territory.

On Kilimanjaro for example, the territory’s unanimously disliked entities represent objects from modern society: modern trees (fast-growing trees that replace native species in highland forests and that dehydrate the land) and tap water (generating the disappearance of irrigation canals and inequalities of access to the resource). As for the

Table 3
Characterization of place attachment in our case studies.

Case studies	Characterization of place attachment		
	Type of place attachment	Place dependence	Place identity
Sologne	Heritage Sentimental	Low	High
Forez	Nostalgia Usage	High	Low
Kilimanjaro	Sacred Existential	High	High
Barthes	Esthetic Institutional	Low	Low

liked entities, these are embodied by natural entities: mainly forest, water sources and the icecap. The Kilimanjaro forest is unanimously liked in the territory but for different reasons: respect of unique environmental conditions, basis for social relations and ancestral knowledge, economic potential, source of fuelwood, timber and grass for livestock, preservation of water, climate and soil. Then come the water sources which are mysterious and sacred, purveyors of quality water. Finally, the icecap is cherished for its role in providing all the natural resources necessary for a healthy life. Polarizing entities are represented by the opposition between modern practices (intensive agriculture, tourism and hunting) and traditional practices (agroforestry, canal committees and village forest management). For some actors, these modern activities bring income to the country, but for other actors, they create many social inequalities and significant environmental impacts (pollution, disappearance of wildlife). Similarly, for some actors, traditional activities limit the economic development of the area and for others, they enhance local knowledge and respect for natural resources.

Each case study has its specificity, of course, and we cannot detail each case here. Nevertheless, our four studied territories are globally in line with this classification. First, the entities being much appreciated by the actors represent mainly natural objects. For example, in Adour Barthes, the wet meadows are unanimously liked among the actors, followed by several animals specific to the Barthes: Barthais horse, goose, eel and pike. Secondly, the entities originating from modern society are generally disliked and conflicting, and associated with territorial problems for the actors. These entities can be highly diverse, such as infrastructures or landscapes, but are characterized by man-made footprints. On the Forez plain, for example, the overall urbanization of the area and the Grangent Dam, followed by highways, gravel pits and dikes, are very much criticized among actors. These modern entities can limit the attachment of individuals to other territorial objects and also induce a desire to leave the area. Finally, both liked and disliked aspects of territories are usually represented by practices, such as specific policies, mentalities or types of management. These well-known issues are central because they serve to partially crystallize the stakes and the potential conflicts of the territory. On the Forez plain, the types of agriculture and natural resource management appear clearly as the sensitive points of the territory, being both admired and criticized.

Table 4 provides a synthesis of liked, disliked and polarizing objects for the four case studies. These results underscore the diversity of the entities to which the actors relate, and a possible classification of objects into three categories: nature, modernity and practices.

5. Discussion

5.1. Place attachment

Our results align with those of [Lin and Lockwood \(2014\)](#), highlighting the spatial diversity of place attachments for natural areas and their social, cultural and biophysical sources and reveal that the different natural and cultural entities of places enhance varying kinds of emotions. Similarly, [Korpela et al., \(2009\)](#) work on favorite places highlights the importance of the environment in ongoing processes of emotion and self-regulation and shows that the physical environment is important in itself for the individual.

On the diversity of emotions, our results relate to the scientific domain of emotional geography which apprehends all emotions associated with a place ([Dallman et al., 2013](#)). [Kearns and Collins \(2012\)](#) or [Stratford \(2009\)](#) show that some territorial elements can generate strong and diverse emotional connections, and [Livet \(2002\)](#) explains that the different values that we ascribe to specific places explain this diversity of emotions which can be infinite, as well as the roles that emotions can endorse ([Traïni, 2009](#)).

On place dependence, our work echoes the two dominant narratives identified by [Savage et al. \(2005\)](#). On the one hand, place attachment is

Table 4
Classification of place meanings in our case studies.

Case studies	Place meaning		
	Liked entities	Disliked entities	Polarizing entities
Sologne	<ul style="list-style-type: none"> – Trees – Biodiversity – Avifauna – Ponds – Sologne sheep 	<ul style="list-style-type: none"> – Mono-specific forests – Fenced-off properties – Wastes 	<ul style="list-style-type: none"> – Hunting practices – Large properties management – Tourism – Wild game
Forez	<ul style="list-style-type: none"> – Countryside – River – Hedges – Birds – Trout – Wild game 	<ul style="list-style-type: none"> – Urbanization – Dams – Highways – Dikes 	<ul style="list-style-type: none"> – Agricultural practices – Canal of forez – Ponds
Kilimanjaro	<ul style="list-style-type: none"> – Forest – Water – Indigenous strains – Icecap – Springs 	<ul style="list-style-type: none"> – Tap water – Fast growing planted tree species 	<ul style="list-style-type: none"> – Agricultural practices – Tourism – Hunting practices – Irrigation canals
Adour	<ul style="list-style-type: none"> – Wet grasslands – Avifauna – Eels – Barthais horses – Countryside 	<ul style="list-style-type: none"> – Corn (maize) – Poplar trees – Invasive species – Clapper valves 	<ul style="list-style-type: none"> – Barthes communal ties – Dikes – Wet zones
Balance sheet	Nature	Modernity	Practices

based on a sense of communal roots, on historical claims, on nostalgia and on social markers. It is the case for Forez and Kilimanjaro. On the other hand, places become ‘sites for performing identities’, where people ‘attach their own biographies to their “chosen” residential location’ (2005: 29). This choice, mostly available to the mobile middle class, is determined mainly by esthetic, physical and ethical criteria as well as by what Savage calls the place “aura”. It is the case for Sologne and Barthes.

On place identity, like Kyle et al. (2014) we recognize that the physical environment plays an important role in maintaining identity. We can borrow from Relph’s (1976) concepts of insideness and outsidership to illustrate our cases. Insideness represents a commitment to the place from an individual and collective perspective; individuals exhibiting strong ties with the place (insideness) characterize the place as a unique component of their existence. When places they affectionate are degraded, ‘the sense of loss that they express is not only a loss of place but also, more profoundly, a loss of self’ (Dixon and Durrheim, 2000). This is the case for Sologne and Kilimanjaro. Outsideness signifies the separation of the individual who is transformed into an observer of that place; individuals exhibiting weak ties with a place (outsideness) behave in space as if the place was something accidental and with limited influence over their personal decisions. This is the case for Barthes and Forez.

Our next figure provides an example of what can be proposed as a schematic representation of place attachment, based on our analysis. Of course, this kind of representation is a simplification of the complex phenomenon of place attachment. Nevertheless, we argue that such representations may help when implementing a multiple case comparison or as a participation tool for land use planning (see Fig. 3).

5.2. Place meaning

Our results concerning liked entities corresponding to natural objects echo the literature on nature bonding which show that meanings of places emerge from relationships between self and natural features (Bonaiuto et al., 1999; Schroeder, 1996) or landscape characteristics (Kaltenborn and Bjerke, 2002; Warzecha and Lime, 2001; Williams et al., 1992). Nature bonding rests on geographical, historical knowledge of the place or familiarity with the surrounding nature (Gustafson,

2001). Like Wynveen et al. (2012) or Stedman (2003), we show that place meanings are derived from interpretations of the physical attributes of a setting, such as the pristine nature of the environment and the presence of rare or important species and ecosystems. Indeed, specific species are regularly cited as liked entities in our field studies such as sheep in Sologne, trout in Forez or eel in Barthes. Other concepts analyze affinity with nature such as nature connectedness (Mayer and Frantz, 2004), nature relatedness (Nisbet et al., 2009), love and care for nature (Perkins, 2010), emotional affinity towards nature (Kals et al., 1999), or dispositional empathy with nature (Tam, 2013). Nevertheless, as said earlier, this literature is more about nature in general as we highlight here the meanings of natural objects in specific places. On this point, further study will be necessary on the interactions between localized sense of place (Beckley et al., 2007; Bricker and Kerstetter, 2000; Gunderson and Watson, 2007) and generalized sense of place (Kaltenborn and Bjerke, 2002; Twigger-Ross and Uzzell, 1996).

Though the literature on nature connectedness and place attachment is abundant, there are fewer writings concerning the disliked entities within a territory and their impact, in other words on disconnectedness from nature or territory which may indirectly contribute to environmental deterioration (Howard, 1997; Schultz et al., 2004). Our work echoes some authors who have nevertheless analyzed urbanization as a negative impact of modernity, such as Hertsgaard (1999) for whom urbanization represents a part of the separation, or disconnect, from nature as experienced throughout the 20th century Western world. The negative perception of the city can act as a barrier to environmental connectedness (Nisbet et al., 2009). A deeper analysis of place detachment and disliked entities therefore appears worthy of consideration.

Finally, there is no literature specifically on what we call polarizing entities, which are simultaneously liked and disliked entities. What happens when human collectivities occupying the same territories do not share the same attachments and meanings? As shown by Barth (2000), several groups, each possessing its own identity, can inhabit the same territory, yet without having the same relationships with this territory in terms of belonging, appropriation or demands. Since place meaning on the individual level develops through personal experience within a given environment, it may differ between different communities (Vorkinn and Riese, 2001). Study of the antagonisms revealed by

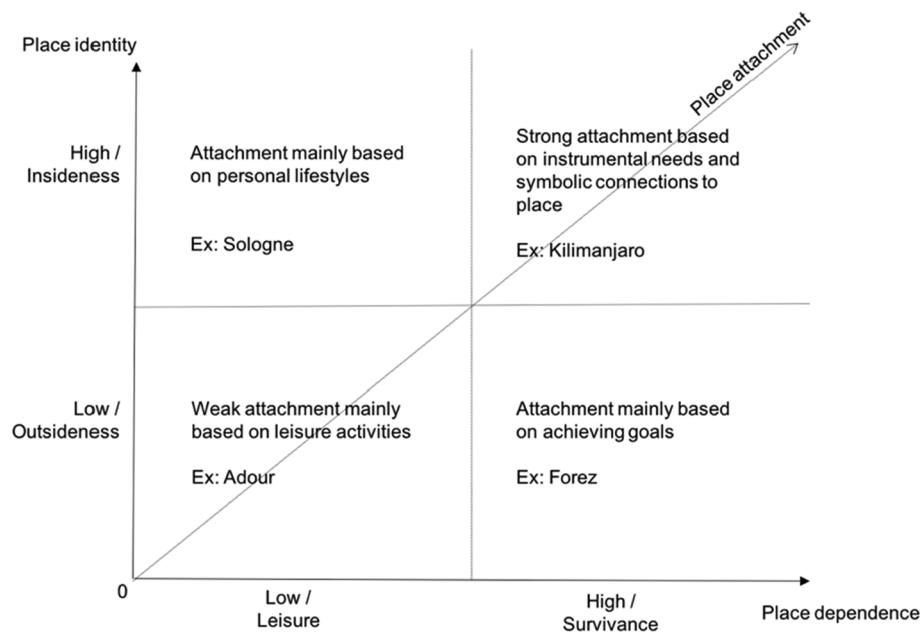


Fig. 3. Schematic representation of place attachment in our case studies.

our discourse analysis brings to light the different values associated with the characteristics of a space and these antagonisms, revealed through polarizing entities, should be given more attention.

This categorization of place meaning is, of course, exploratory and deserves to be confronted with other contexts. Nevertheless, we argue that such an attempt at classification can help to identify place characteristics which enhance attraction, rejection or both. Such data can be of use to actors themselves as a dialog platform, as well as in local politics and to promoters in order to better adapt land-use projects to local affinities.

6. Conclusion

This contribution to a spatial theory of sense of place is an invitation to seek a better understanding of the importance of physical and concrete places in dynamic territorial attachments and meanings. Four main scientific inputs arise from this paper: (1) a theoretical input through clarification of seven relation-to-place concepts: sense of place, place attachment, place meaning, place satisfaction, place experience, place identity and place dependence; (2) a framework proposition in order to highlight the important role of place in defining sense of place, apprehended as the combination of place meaning and attachment; (3) an empirical input with a comparative multiple case analysis obtained by testing the framework on four rural areas; and (4) schematic representations of place attachment (based on place dependence and place identity) and place meanings (based on liked, disliked and polarizing entities) as tools for dialog.

Concerning place attachment, we show that disparate objects of places enhance a diversity of emotions. Among the Chagga people of Tanzania or the forest landowners in Sologne, the same type of attachment may exist, though sometimes motivated by different objectives: survival, rites, transmission, accreditation or usage. Attachment can be visceral or light, conscious or unconscious, individual or collective, based on a belief or on an interest, and we propose a schematic representation of place attachment on a gradient following place dependence and place identity.

As for place meanings examined according to place experiences and place satisfaction, it is striking to discover that, globally, actors are more attached to natural objects (for example, forests, springs, mountains, fauna) and are estranged from objects of modern society (for

example, highways, dams, species artificially introduced). Aspects related to practices (for example, hunting, irrigation canals, agriculture) may be both liked and disliked, and represent what we call polarizing entities, potential sources of conflict within a territory because they are the ones that can make or break social capital. These differences in terms of place meanings generate antagonisms related to moral values associated with the place; we argue that such a representation of place meaning based on liked, disliked and polarizing entities can be useful to spot these differences.

On the methodological aspects, we have used qualitative approaches with a discourse analysis comprised of semi-structured interviews, to decrypt place attachments and meanings via analysis of affective, conative and cognitive dimensions of actors' discourses. It would be interesting to combine our method with other approaches of people-place interactions, such as discursive or positive ones in order to limit research fragmentation and enhance encompassing research practices. To complete our framework from an individual to a collective sense of place, the discursive approach highlights the role of the narrative process of place making and examines the interactional processes through which place meanings are collectively created, shared, and maintained (Auburn and Barnes, 2006; Di Masso et al., 2014). To enhance the conative part of our framework, the positive approach attempts to generalize the place base theories from individual experiences (Canter, 1997a,b). Furthermore, a qualitative approach performed on multiple cases may offer insight into how place can be more specifically operationalized for application within future quantitative efforts (Beery and Wolf-Watz, 2014). As stated by Lewicka (2011), it is the combination of quantitative and qualitative approaches, rarely found in the literature that proves to be the most scientifically pertinent when it comes to furthering our understanding of the notions of sense of place. It would therefore be interesting to combine qualitative approaches with the use of geographic information systems (GIS), geostatistics or psychometrics.

To go further and strengthen the robustness of our spatial approach of sense of place, the framework must be more articulated theoretically, particularly regarding the affective-cognitive-conative triptych. An example is the place identity concept, which is affiliated with affective facets for some authors and to cognitive facets for others. Furthermore, the role of different disciplines within the framework should be specified, especially the differentiation between environmental psychology

and emotional geography, since the framework borrows from various approaches. Next, both our place attachment figure and place meaning classification must be detailed and confronted with other case studies, notably urban environments. Other perspectives would be to work specifically on geographical scales of attachment and meanings (Syme et al., 2002) in order to specify sense of place, and to add a temporal aspect in order to make the framework more dynamic. The framework should also be developed in its conative dimension through the notion of place-protective behavior. As Stedman (2002) assesses, scholars interested in the linkages between people and environment should care about sense of place, not as an end in itself but as a predisposing action. Therefore, within our framework, sense of place should be examined as a potential leader of actions, namely pro-environmental behavior, or place-protective actions.

More research is needed to better understand the complex factors affecting environmental behaviors, but by focusing on place-based as well as on place-transcendent value-based factors, researchers and practitioners can better understand the elements underlying behaviors (Brehm et al., 2013). We argue that work on environmental connectedness could benefit from a place perspective. Like Beery and Wolf-Watz (2014), we think that any nature encounter should be regarded as experiences situated in particular places and that environmental behaviors need to be seen as place-situated phenomena. Places, more than nature in general, may facilitate and frame interpersonal relationships, social formations, and behavior. People's assignments of meaning to physical segments of the earth's surface make places appear, and as such, the concept of place captures social construction while, at the same time, recognizing the material basis for it. The spatial approach to sense of place allows a link to be established between entities from spheres that are, at first glance, relatively distant from each other (features of natural heritage, of landscape, past, present and future generations) and thus to construct a whole that is defensible according to several perspectives anchored within "the materiality of the world" (Trom, 2001).

We end this article with the following comments on how the notion of sense of place may be of interest from a societal point of view, and, more specifically, in the area of territorial development policies. We have seen that the literature on relation to places, which comes mainly from environmental psychology, is centered on the experiences of individuals with respect to places, but that it does not analyze the socio-political implications of these attachments. In contrast, where territorial development is concerned, the literature underscores the importance of participation and local power, but does not concern itself with emotional connections to places; in fact, it stigmatizes attachments to proximity (Sébastien, 2017). A connection between these two approaches might help to firmly set sense of place within a larger socio-political context, therefore enabling land-use planners as well as decision and policy makers to anticipate reactions when faced with a change of place, and also to understand what mobilizes local actors and what feelings are at the basis of their actions.

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Appendix 1. Examples of questions asked related to sense of place and territorial challenges

What are the major problems encountered within the territory, by order of importance?
 What are the main assets of the territory, by order of importance?
 What are the territory's main disadvantages, by order of importance?
 What are the territory's greatest challenges, by order of importance?
 What features constitute the territory's cultural heritage?
 What features constitute the territory's natural heritage?
 How would you characterize this place?
 Explain what this places mean to you

How did you choose to stay in/move to this place?
 Do you feel at home here? What place do you call home?
 What future do you see for the territory a hundred years from now? Positive/negative?
 What future challenges do you see for the territory?
 What do you do in response to the challenges mentioned?
 What conflicts are there in relation to the territory? The causes?
 Who are your adversaries? Your allies?
 How do you react when faced with a conflict in which you are involved?
 What are the costs and the advantages of a conflict within the territory?
 What actions would you propose for the preservation of the territory's heritage?
 What changes have taken place within the territory over the last century?
 How do you feel about activities that have disappeared from the region?
 What features of the past have most affected the present?
 In your opinion, what future conflicts might take place in relation to the territory?
 What would be your ideal territory?

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