Highlights

- Sense of place reflects how people perceive and feel about places, including meanings they attribute to places and how strongly they are attached to places.
- People who ascribe ecological meanings to a place are more likely to engage in stewardship and other behaviors to protect a place against development.
- People with strong place attachments act to protect places threatened by development, and to restore places that have been damaged by economic and environmental decline and disaster.
- Environmental educators can foster ecological place meanings by providing opportunities for youth to spend unstructured time in nature, and can foster sense of place more broadly through providing recreational, stewardship, citizen science, and action research experiences in nearby neighborhoods.

The notion of sense of place resonates across cultures. When my former PhD student Alex Kudryavtsev was conducting research in the Bronx, New York City, he listened to educators describe their goals for the youth in their programs. When he told them that their goals sounded like instilling a “sense of place” among youth growing up in this low-income, ethnically diverse neighborhood, the educators were excited to find a term that described their aspirations. Half a
world away, when I lectured about sense of place to Chinese university students in Beijing, they immediately latched on to the concept—and how it applied to where they grew up and the large city in which they were now living. One student even published an essay on how moving away had changed the way she viewed the place where she was from (Yu 2018b). And my colleague and friend Akiima Price from Washington, DC, has developed a strong place attachment to the river that she grew up near and has helped steward for twenty years (figure 9.1).

**What Is Sense of Place?**

Sense of place refers to the meanings and emotions we associate with a particular place. It includes both a cognitive (place meaning) and affective (place attachment) component (table 9.1). Place meanings and attachments encompass the physical and biological as well as the social and cultural aspects of a particular place, such as a park, neighborhood, city, or region (Tuan 1974; Stedman 2002; Manzo and Perkins 2006; Kudryavtsev et al. 2011; Ardoin 2014; Rickard and Stedman 2015; Masterson et al. 2017; Larson et al. 2018).
Place meanings are descriptive or symbolic representations of a place. For example, you might describe your neighborhood as a place where you can see wildlife, enjoy outdoor recreation, or spend time with friends. Or you might see where you live as a “verdant city,” that is, a symbol of how nature can be integrated into the built environment, or a “welcoming city,” symbolic of how a place can be hospitable to immigrants and people of multiple ethnicities (Stedman 2002; Kudryavtsev 2013; Masterson et al. 2017; Larson et al. 2018). Ecological place meanings are meanings attributed to wildlife, plants, and other natural phenomena, and to nature-based activities such as building forts with natural objects, gardening, or canoeing (Kudryavtsev et al. 2012). Depending on the particular meanings people hold, they react differently to threats to a valued place. For example, in a study of people owning vacation homes around a lake in northern Wisconsin, some homeowners saw the lake as a place of natural beauty, whereas others described it as a place to spend time with family and friends. Only the homeowners with ecological place meanings were willing to take action to protect the lake from development (Jorgensen and Stedman 2001).

While recognizing that humans associate both positive and negative emotions with places, place attachment generally refers to positive bonds people
form with a place (Altman and Low 1994; Masterson et al. 2017). Place attachment also is described as a feeling about the value and significance of various place meanings (Larson et al. 2018). Children are attached to a place when they “show happiness at being in it and regret or distress at leaving it, and when they value it not only for the satisfaction of physical needs but for its own intrinsic qualities” (Chawla 1994, 64). If I see my neighborhood as a place where I can take pleasant walks in nature, and I enjoy walks in nature, I am likely to develop an attachment to my neighborhood. In short, place attachment describes an attraction to a place, while place meaning provides a foundation for that attraction (Stedman 2002).

In addition to place meaning and place attachment, place identity is often considered a component of sense of place (Jorgensen and Stedman 2001, 2006). Place identity refers to the ways in which physical and symbolic attributes of certain locations contribute to an individual’s sense of self or identity (Proshansky et al. 1983). Humans have both individual and social place identities (Uzzell et al. 2002; Devine-Wright 2009; see also chapter 11). In one study, residents who valued and identified with the ecological features of their coastal town resisted the installation of offshore wind turbines, whose presence would have disrupted their place attachment and threatened their place identities (Devine-Wright and Howes 2010).

Another component of sense of place, place dependence, refers to the potential of a place to satisfy people’s needs, in particular by providing settings for outdoor recreation. Thus we may depend on a particular park as a place where we walk our dog (Jorgensen and Stedman 2001; Vaske and Kобрин 2001; Farnum et al. 2005). Some researchers consider place identity and place dependence as part of place attachment, while others consider these constructs as more broadly related to sense of place (Altman and Low 1994; Vaske and Kобрин 2001; Ardoin 2006; Kudryavtsev et al. 2011).

People’s sense of place is often tied to their sense of community, which is defined as feelings among members of a group that they belong to the group, that they are important to each other, and that their needs will be met through the group (McMillan and Chavis 1986). While sense of place captures meanings and attachment to the physical as well as social aspects of place, sense of community focuses on bonds among people. Often sense of community, and related attributes such as social cohesion and social capital, are found in places where people also have strong place attachment (Pretty et al. 2003; Amsden et al. 2010; Lewicka 2011). However, online communities are increasingly becoming sources of identity, connections, and meaning, and also may foster a sense of community and mobilize both online and offline (or place-based) collective action (Ballew et al. 2015).
As more people are displaced due to conflict, economic stress, or disaster, their sense of place and sense of community can be disrupted (Rivlin 1982; Ardoin 2006). This is captured by the comments made by a resident of a West Virginia town after a devastating flood that displaced many residents: “I have a new home right now, and I would say that it is a much nicer home than what I had before. But it is a house, it is not a home. Before I had a home” (Erikson 1976, 175). Such comments suggest the importance of sense of place as a component of loss, in light of more frequent and devastating disasters.

**Author Reflections**

I have lived in several places, some of which hold negative place meanings, while others hold positive place meanings. My place meanings in turn influence my attachment to different places. I grew up in the Washington, DC, suburbs, to which I associate several negative meanings, such as lack of feeling of community, car dependent, traffic congestion, and sultry summers. These negative meanings may be part of the reason I don’t feel particularly attached to this place. Fortunately for me, I associate positive meanings with where I currently live—Ithaca, New York—including ecological place meanings associated with our scenic gorges, lakes, hawks, ospreys, and walkable neighborhoods, and cultural features such as opportunities for learning through Cornell University. Just this morning on my walk to work I saw a raccoon, numerous rabbits, and a screech owl peering from a nest box next to Beebe Lake. I even smelled a skunk, one of my favorite animals! And as I write from my office, I hear the ravenous fledging red-tailed hawks on the neighboring building screaming at their parents for food. Walking and running through Ithaca’s natural areas are part of my identity, and I depend on these places for my recreation and well-being.

**Why Is Sense of Place Important?**

*Processes of collective action work better when emotional ties to places and their inhabitants are cultivated.*

(Manzo and Perkins 2006, 347)

People are motivated to protect places that hold personal and valued meanings, places to which they are attached, and places which form part of their identity (Stedman 2002; Cheng et al. 2003; Devine-Wright 2009; Ardoin 2014).
• People are likely to steward a place if they feel both a strong place attachment based on the place’s natural features and attribute to that place ecological place meanings (Lewicka 2011; Kudryavtsev et al. 2012; Larson et al. 2018).

• People holding conflicting place meanings or who depend on a place for different reasons—for example, natural area as a place for motorized or nonmotorized recreation—may draw on their common place identity, alongside trust and social ties, to develop common goals for managing a particular place (Cheng et al. 2003; Payton et al. 2005). For example, two groups of residents in rural Alberta, Canada, one that used the Oldman River watershed for off-road vehicle use and the other for hiking, were both attached to their shared place and worked together to restore the watershed (OWC 2017).

• Meanings attached to an iconic species, for example oysters in New York City, can spur behaviors to protect that species and even rebuild the “places” that provide a home for valued species (e.g., oyster reefs) (Krasny et al. 2014).

• Place attachment to natural areas and to one’s neighborhood is associated with general environmental behaviors such as reducing energy or recycling batteries (Vaske and Kobrin 2001; Halpenny 2010; Scannell and Gifford 2010; Rioux 2011).

• Whereas place attachment based on social connections may not predict environmental conservation behaviors (Rivlin 1982; Scannell and Gifford 2010), it can be leveraged as a tool for neighborhood revitalization (Brown, Perkins, et al. 2003). Neighborhood revitalization projects that include community gardening, litter cleanups, and other civic ecology practices provide settings for environmental education (Krasny and Tidball 2009a, b; Krasny, Lundholm, et al. 2013).

• Place attachment has psychological benefits, including positive memories and emotions and feelings of belonging, relaxation, and comfort (Lewicka 2011; Scannell and Gifford 2017).

How Does Sense of Place Influence Environmental Behaviors and Collective Action?

Social and political behaviors and place meanings are not discernable by looking solely at biophysical attributes or individual inhabitants of the place; they emerge as result of the interaction between biophysical attributes and social and political processes.

(Cheng et al. 2003, 99)
When residents’ place meanings, attachment, and identity are threatened by gradual decline of a neighborhood, they may be spurred to take place-protective collective action. This can happen when employers go elsewhere, houses are abandoned and boarded up, and graffiti stares out from crumbling concrete walls. Sudden disasters, such as floods, can also spur action to rebuild. Alternatively, residents facing decline and disaster and other threats to their sense of place may become despondent and neither initiate nor respond to calls for action.

Whether or not people engage in place-protective behaviors in response to decline and disaster depends not only on their sense of place, but also on the level of existing community ties (e.g., sense of community, social cohesion, or social capital; figure 9.2; see also chapter 13). Thus, sense of place can spur collective actions through a combination of threats to sense of place and social cohesion (Uzzell et al. 2002; Brown et al. 2003; Payton et al. 2005; Manzo and Perkins 2006; Devine-Wright 2009; Lewicka 2011). Those who are more attached to their neighborhoods tend to interact more with neighbors, suggesting that place attachment and community ties are created simultaneously (Manzo and Perkins 2006). Note that in addition to drawing on community ties, conservation action reinforces existing and even builds new and stronger community ties. This occurs through people communicating about the impact of proposed changes on the environment and the people who live there (Devine-Wright 2009) and through working together to restore valued places (Krasny and Tidball 2015). However, in some cases disruption leads to a weakening of both social networks and place attachment, especially if feelings of loss are ignored (Manzo and Perkins 2006).

Place-protective behaviors also emerge in neighborhoods and rural areas threatened by industrial, energy, and other types of development. NIMBY, or “not in my back yard,” is a term used to refer to people protesting when an industrial or other facility is proposed near where they live. Similar to other place-protective behaviors, local opposition is sparked when change disrupts emotional attachments to place and place identity (Devine-Wright 2009). Often it is a combination of several threats that spurs people to action.

In short, place attachment and community ties are inextricably linked in part because place attachment depends not only on the physical environment but also on our experiences with others in the community. Place-protective action often occurs when place attachment is disrupted, especially in neighborhoods with strong social cohesion and where feelings of loss are addressed (Manzo and Perkins 2006; Devine-Wright 2009; Lewicka 2011). Place identity, place attachment, and social cohesion work in hand in hand to foster place-specific environmental behaviors and collective action (Uzzell et al. 2002).
CHAPTER 9

How Can Environmental Education Nurture Sense of Place?

In today’s increasingly transient world, a rooted, ancestral connection to place is becoming increasingly rare. Therefore, place-based education programs may be most effective when they recognize the diversity of place attachments that exist and cumulate from a range of relationships with the landscape. . . . Place-based education should strive to reach a range of community members through building on individual, unique perspectives, rather than privileging only a rooted sense of place.

(Ardoïn 2006, 120)

People develop place meanings and place attachment through positive interactions with a place and with the people in that place. Participants in an environmental education program will already have developed place meanings through their past experiences. In everyday activities, such as traveling to and from school,
children construct place meanings and attachment through seeing and interacting with bicycle paths and streets, apartments and businesses, and other children and adults (Chawla 1994; Larsen and Harrington 2018). Note that although they may already have developed meanings related to a place (e.g., green spaces, violence), youth may enter a program with little place attachment. This is more likely if they live in neighborhoods with weak social cohesion and signs of decline such as trash, vacant lots, and unruly behaviors, or otherwise have had negative experiences with their place (Brown et al. 2003). Participants who have moved to a new city or experienced a disaster may also lack feelings of place attachment (Ardoin 2006). Thus, educators will want to consider participants’ existing sense of place in planning program activities. Similar to the situation with attitudes, educators can “navigate” existing place meanings, attachments, and identities (Heberlein 2012; see also chapter 7), while also taking steps to enhance ecological place meanings and related place attachments.

Because gender, ethnicity, and class influence how people use places, which in turn determines their sense of place, educators will also want to use their knowledge of the sociopolitical context in which their participants live to plan activities (cf. Uzzell et al. 2002; Manzo and Perkins 2006). In some cases, a minority ethnic group may experience higher levels of place attachment than the majority group, perhaps as a result of feeling at home in a neighborhood with fellow minorities (Brown et al. 2003). Further, in urban neighborhoods, residents may express their cultural identity through creating “sacred places” and “vernacular” spaces that have local significance, such as community gardens with ethnic plants and folk art (Manzo and Perkins 2006). Once having identified such places, environmental educators can help participants describe associated place meanings, through visiting, mapping, drawing, photographing, videoing, and conducting stewardship activities in these places. When sacred places are threatened by development, participants can communicate their place meanings and attachments to local decision makers in an attempt to preserve them (Hester 1993). Finally, when program participants disagree about how a place should be treated, educators can ask them to discuss their underlying place meanings and place attachment (Manzo and Perkins 2006).

In addition to taking into account existing sense of place, educators can engage participants in activities to build place attachment and ecological place meanings. These activities should be enjoyable and conducted with other children and adults. For children, spending unstructured time exploring nature is the primary means for developing ecological place meanings and attachment (Chawla 1994; Briggs et al. 2014). Positive experiences in nature also can be created through nature-based recreation (Larson et al. 2018), community gardening and similar civic ecology practices (Krasny and Tidball 2015), and community celebrations (Brown et al. 2003). Another approach to cultivating place attachment is having
long-term residents who are deeply connected to a particular neighborhood or place share their oral history with newcomers or youth (Brown et al. 2003; Stefaniak et al. 2017). This approach can piggyback on popular storytelling activities (e.g., Story Maps, StoryCorps). Such intergenerational programs also create social cohesion, which is needed in order for sense of place to result in community action (Uzzell et al. 2002).

In trying to foster sense of place among participants, educators will want to consider that while place meanings may change through environmental education programs, place attachment develops through a series of interactions over a long period of time. In programs in the Bronx, youth who had not previously spent time along the Bronx River and had place meanings focused on the built environment participated in summer stewardship and monitoring activities along the river. After participating in the programs, they developed an ecological place meaning, now viewing the Bronx as a place where they could see wildlife and enjoy outdoor recreation (Kudryavtsev et al. 2012). In these programs, nurturing ecological place meaning involved opening participants’ eyes to the ecological dimensions of their neighborhoods that they had not noticed before. However, the youths’ place attachments did not change as a result of the programs, suggesting that multiple experiences with places and people over a longer period of time may be needed to develop place attachment. Such long-term experiences should cultivate feelings of satisfaction, security, and pride in one’s place, and foster meaningful social interactions (Stedman 2002; Lewicka 2011). Even if some students are already strongly attached to their community, an environmental education program might influence the reason for this attachment through nurturing ecological place meanings (Kudryavtsev et al. 2012).

Nature-based recreation can also provide a pathway to sense of place and related conservation behaviors (Larson et al. 2018). People who spend time in urban parks connect to the park and to the people who use the park (Peters et al. 2010). Sites where participants engaged in bird-watching or hunting were associated with emotional components of place attachment, including positive memories and a sense of confidence and comfort. Additionally, different types of recreation may be linked with distinct ecological or social place meanings and identities. Bird watchers hold ecological place meanings, whereas hunters’ place meanings are defined by social interactions in rural communities and a hunting culture (Larson et al. 2018).

Citizen science projects can be another approach to developing sense of place, particularly those that entail repeatedly going back to the same place to collect data on biodiversity. During these repeated activities, participants learn about the data-collection site and develop place meanings, and form ties with fellow
data collectors and with the place. In a citizen science project focused on coastal seabirds, participants attributed becoming attached to the place where they collected data to the time and effort they put into data collection, the beauty of the site, encountering wildlife, and becoming familiar with the site and related scientific knowledge (Haywood et al. 2016).

Other activities that enhance place meanings and place attachment include action research, community service learning, discussions with peers and environmentalists, place-based interpretive excursions, nature studies, and stewardship of a local park or other resource (Kudryavtsev et al. 2011; Russ et al. 2015; Adams et al. 2017). Students might also engage in concept mapping to highlight important places and networks, for example those related to food and energy sources or recreation. When discussing their maps, students can recognize how their activities connect to the larger city, and can reflect on issues of power and equity in relation to air and water contamination and access to green space (Adams et al. 2017). Regardless of the particular activity, consider the potential for participants, their families, and the broader community to work together, form positive memories, express themselves, and develop respectful relationships (Chawla 1994; Payton et al. 2005; Smith and Sobel 2010; Johnson et al. 2012; Adams et al. 2017).

Place-based education is a popular approach in environmental education. Based on the belief that students and community members should first understand concerns within their local community prior to tackling national and international problems, it engages participants in action research and other activities in the local community (Sobel 2004). More broadly, place-based education is concerned with raising awareness of place, our relationship to place, and our positive contributions to place, to environmental quality, and to community well-being (Adams et al. 2017). Often it is used as a means to teach school subjects across the curriculum and improve academic achievement (Sobel 2004; Smith and Sobel 2010; Johnson et al. 2012). By providing repeated experiences with community members, place-based education should enable students to develop place meanings and ties to their community and environment (Larsen and Harrington 2018).

Educators wishing to incorporate a sociopolitical perspective into place-based learning can draw on critical pedagogy (Freire 1973). Critical pedagogy of place integrates place-based learning with learning about the sociopolitical forces, such as inequality, that impact places and their inhabitants. It entails decolonization, or “learning to recognize disruption and injury and to address their causes,” followed by reinhabitation, or “learning to live well socially and ecologically in places that have been disrupted and injured” (Gruenewald 2003, 9). Such perspectives integrate awareness of program participants’ social, cultural, and political context with efforts to build sense of place.
Assessing Sense of Place

Multiple methods are used to assess sense of place, including activities embedded in environmental education programs. Participants can take photos of significant, favorite, or even disliked places as part of an activity to explore their neighborhood. During a group discussion or one-on-one interviews afterward an evaluator can ask participants to explain why they took photos of certain places and what those places mean to them (Briggs et al. 2014). Such photo-elicitation methods can be expanded using computer technologies, for example by allowing children to pin their photographs to a digitized map or record stories about their favorite places. Alternatively, children might use a printed map of significant places in their neighborhood or simply be asked to draw a map of significant places (Lewicka 2011). Regardless of the method used, paying close attention to the meanings participants ascribe to places, plants, wildlife, and other features is critical, as participants’ associations with places may differ from those of evaluators (Briggs et al. 2014).

Likert scale surveys are also commonly used to assess participants’ sense of place, with questions that reflect place meaning and place attachment (Kudryavtsev et al. 2011; Kudryavtsev et al. 2012). Place-meaning questions should include items about ecological features of the place, whereas place-attachment questions can capture both place identity and place dependence (see appendix).