Sense of Place in Australian Environmental Education Research: Distinctive, Missing or Displaced?

Robert B. Stevenson[†]
James Cook University

Abstract

Many environmental educators were motivated to enter the field by a concern for the loss of places to which they felt a strong sense of attachment and belonging. This raises the question of whether a sense of place, or attachment to the Australian biophysical or cultural landscape, has shaped Australian environmental education research. An analysis was conducted of articles by Australian authors published in the AJEE in the period from 1990-2000, a time that preceded the (re)emergence of attention to place-based education in academic circles. Only four of 67 articles addressed the author's or other Australian's sense of place. Several explanations for this finding are examined, drawing on some of the environmental psychology literature on place identity as well as the notion that sense of place involves multiple interrelated personal, cultural and professional identities. Finally, an argument is made as to why place attachments are important to environmental education research.

Introduction

In reflecting on the question of what might be unique or distinctive about Australian environment-related education research, the influence of the uniqueness of the Australian environment first came to mind. Perhaps this was because of the landscape I had missed during an extended residency overseas or because my extensive experience in another country's education system highlighted numerous commonalities rather than many distinctive features of Australian education. And my observations suggested that differences in educational research seem to be more related to factors associated with institutional (and department) cultures and identities rather than characteristics of nation states. So a potential source of any distinctive identity for environmental education research seemed at first to rest on connections Australian environmental educators might feel to place – to the biophysical and cultural landscape of this country. Here I refer not to the vernacular understanding or the pastoral view of landscape as separate and distanced but as linked to part of our identity as Australians.

Why might a distinctively Australian connection to the environment, or perspective on the human-environment relationship, be expected or even possible? The fact that

†Address for correspondence: Professor Bob Stevenson, The Cairns Institute and School of Education, James Cook University, PO Box 6811, Cairns, Queensland 4870, Australia. Email: bob.stevenson@jcu.edu.au

there are many unique features of Australian landscapes, including its fauna and flora, obviously does not necessarily mean that its citizens in general or its environmental education researchers in particular have a unique perspective on or relationship with those landscapes or researching that relationship. Of course, indigenous Aboriginal Australians have a long history of a special relationship with country or the land, while an outdoor lifestyle, rather than livelihood, that frequently embraces recreational pursuits in natural areas for the non-indigenous population has long been viewed as a characteristic (mythical or otherwise?) of the country. Distinctively Australian social and cultural characteristics and values, many associated with its colonial history (e.g., egalitarianism) and others with it geography and demography (e.g., multicultural migration, urbanisation, highly concentrated coastal settlement) also have been put forward and subject to much debate.

On the other hand, as David Trigger (2008) argues, perhaps we over-emphasise the significance of "nativeness" in constructions of Australian identity. He cites Linn Miller's argument that while our experiences and conceptions of place are culturally constructed, "emplacement is not something people choose – it is, ontologically speaking, a condition of human being" (Trigger, 2008, p. 301). This suggests a sense of place is an existential opportunity available to all – regardless of whether we are of indigenous ancestry, native-born, migrant, refugee or even a temporary resident or visitor to Australia (Trigger, 2008) or any country. The implication is that every individual is emplaced in some way but the particular meaning and contribution of that emplacement to one's identity is a matter of individual biography, culture as well as personal agency.

Yet others argue that the emphasis on the social construction of sense of place neglects the significance of the attributes of landscape which are associated with characteristic experiences, with meanings in turn being constructed from these experiences (Stedman, 2003). This resonates with many Australian environmental educators, such as me, who were motivated to enter the field by a concern for the loss of places to which they feel a strong sense of attachment and belonging. Furthermore, many of us advocate connecting student learning to the local and the personal (Gruenewald, 2003; Stevenson, 1997). Do Australian environmental education scholars in general similarly connect their research and writing to the local and the personal? This issue of personal connections and identity with or sense of place in the Australian environment suggests one approach to exploring the question of the distinctiveness of Australian environmental education research.

Conceptions of Place

The use of the term "place" can be found in a number of disciplines: architecture, philosophy, literary theory, environmental science, environmental psychology, health, geography, history, human ecology, cultural studies and education (Ardoin, 2006; Gruenewald, 2003; Casey, 1997). Not surprisingly then, there are multiple definitions and interpretations of the meaning of place. However, as already indicated, the construction of meaning, emerges as central to most definitions: for example, "a place is above all a territory of meanings ... created both by what one receives from and by what one gives to a particular environmental context" (Relph, 1993 cited in Ellis, 2005, p. 58); and spaces become places as they are "imbued with meaning through lived experience" (Tuan, 1977).

There is an extensive literature on place and place identity but here I confine references to that literature which seem to offer the potential for explaining how a sense of place might be manifested in an individual's environmental work and identity. This criterion points to the sense of place in the environmental psychology literature which embraces three narrower interrelated concepts of place attachment, place identity and place dependence. Place attachment has been defined as "the positive cognitive and affective bond that develops between individuals and their environment (Altman & Low, 1992)" (Chamlee-Wright & Storr, 2009, p. 617). Place identity is viewed as:

a part (sub-identity) of each individual's self-identity and includes "those dimensions of self that define the individual's personal identity in relation to the physical environment by means of a complex pattern of conscious and unconscious ideas, beliefs, preferences, feelings, values, goals and behavioral tendencies and skills relevant to this environment" (Proshansky, 1978, p. 155). Finally place dependence, on the other hand, refers to "an individual's perceptions of whether or not he can satisfy his needs and desires in a particular place, compared to alternative places (Stokols & Shumaker, 1981). Certain places are simply better suited for certain activities. (Chamlee-Wright & Storr, 2009, p. 618).

Place attachment can be interpreted as triggering one's interest in the field and beginning a linking of the personal to the professional. Place identity is a more complex and developmental entity in which the biophysical environment can be a source of ideas and values that shape one's personal and/or professional aspirations and identity. Place dependence, on the other hand, more simply suggests sites that serve particular interests or activities. I have argued elsewhere (Stevenson, 2008) that place now must be thought of beyond the physical environment to include the virtual which has become a source of attachment, identity formation and dependence for many.

These distinctions concerning different kinds of relationships to place raise issues about the dynamic or fluid nature of these relationships and the extent to which individuals hold multiple place attachments, identities or dependencies. In these recent times of global flows of communication, ideas, symbols and people there would seem to be enhanced possibilities of having a wide range of connections to other places, ideas and symbols. Trigger points out that global migration has created trans-national identities and some sense of belonging even to places in which we have not lived. A similar phenomenon that could be attributed to global interconnections emerged in a recent small study of young children's drawings and associated stories about their "special places" in which some children described places such as Paris that they had not even visited (Brooks, 2010).

An alternative perspective is provided by Gruenewald (2003) and Gruenewald and Smith (2008) who describe the impact of this globalisation on people as "placelessness". They argue that people feel disconnected from places because they no longer inhabit them, but simply reside in them. This is similar to Hay's (1998) belief that people are only developing temporary attachments to place because of the transitions occurring at different stages of their lives.

Rather than lacking a sense of place, however, Trigger reports that he has found much emplacement in his interview studies of non-indigenous Australians, although presumably the nature of the attachment to place(s) differs in important ways from that of indigenous Australians. He concludes by arguing the need for "a more adequate intellectual framework for engaging with the facts of cultural co-existence" (p. 308).

This raises some intriguing questions that are explored in this paper: Is there a sense of place or connection to the Australian cultural or biophysical environments or landscapes evident in Australian environmental education research? Or following Peter Fensham's comments over 20 years ago about the implications of the meaning of the characteristics of environmental education, the question could be asked: To what extent do Australian environmental education scholars see themselves as an integral

part of their Australian environment (Gough, 1997)? If so, what aspects or dimensions of the local and place are important influences on Australian environmental education scholars?

Sense of Place as a Research Orientation as Reflected in AJEE

As described in the preceding article in this issue, in order to investigate whether there is a unique or special place-based characteristic of Australian environmental education research, an analysis was conducted of articles published in the Australian Journal of Environmental Education (AJEE) by Australian authors, for the 11 year period from 1990-2000 (see Stevenson & Evans, this issue, for the rationale for this analysis). This period was selected to avoid the initial period of establishment and positioning of the journal, to coincide with a period of the emergence of new environmental education research journals (e.g., CJEE, EER) and new discourses internationally (e.g., ESD, EfS), and to enable a comparison with a subsequent planned analysis of articles in the last 10 years of AJEE. There were 67 articles identified out of 89 (excluding special sections such as Millenium Visions in the 1999/2000 edition and Stories from the Field articles) by Australian or Australian-based authors over the 11 year period covering 10 issues of AJEE. In 62 cases the principal author, not surprisingly, was from an institution of higher education. Essentially then the focus of this analysis became a search for evidence of a sense of place in the scholarly environmental education work in the 1990s of Australian academics in the main scholarly Australian journal in the field.

An initial analysis was conducted to determine whether each article examined environmental education in relation to a specific Australian context. Forty four articles, or approximately two-thirds, involved an Australian context, while 23 had no specific contextual focus. The 44 addressing or set in an Australian context were then analysed to first see whether they addressed a unique characteristic of the Australian biophysical or cultural environment. Nine were concerned with a cultural aspect of the Australian landscape (e.g., indigenous perspectives or cultural/historical heritage) and just two focused on education in relation to a unique biophysical feature of Australia's landscape, fauna or flora. The final and most important analysis for the purpose that has been explained focused on whether or not people's sense of place or the relationship between Australians and their environment was addressed in any way. The principle guiding this last analysis of the stories told in AJEE was actually articulated in an article published during this period and that was one of seven principles of schoollevel curriculum identified by John Fien (1991): "developing a sense of place and identity in the Australian environment". Only four articles captured this principle and explicitly addressed sense of place or identity (Beringer, 1999/2000; Everett, 1997; Mahoney, 1995; Skamp, 1991). In a fifth article, the author refers to place commitment as outcome in arguing that "the process of enabling people to extend their knowledge of natural systems and processes can also enhance their relationships with and commitment to these places" (Slattery, 1999/2000, p. 91). However, this was an isolated reference to sense of place and therefore not included in this group of articles. The focus and frameworks of this and the other 62 articles, and the extent to which they reveal distinctive characteristics of Australian environmental education research, are discussed in Stevenson & Evans (this issue).

Three of these four authors examine personal (e.g., spiritual) relationships or connections to environment. Almut Beringer (1999/2000), in focusing on indigenous (not just Australian but in general) spirituality, argues that most environmental educators focus on curriculum (i.e., the professional realm) but calls for more understanding of our own personal spiritual connections and theology. One such example is provided by Keith Skamp's (1991) article in which he poses the question: To what extent do

we reflect upon our how our spiritual life relates to the environment? Defining spirituality as "an awareness within individuals of a sense of connectedness that exists within their inner selves and to the world" (p. 80), he argues the need to be aware of spiritual connectedness within ourselves in order to be integrated spiritually with the environment. Skamp then draws on Michaela's (1987) suggestion that our spiritual relationship with our environment is dependent upon our response to "Truth" as we see it, which is affected by external inputs such as "the determination of a 'sense of place" (p. 82). Everett (1997) also examines spirituality and environment but from an indigenous cultural (rather than individually personal) perspective. He argues for three themes or propositions of indigenous education: (1) learning about and putting in practice ecologically sensitive living is central to Aboriginal indigenous education; (2) indigenous Australians are deprived of landscapes that provide the base to their spirituality; and (iii) indigenous and non-indigenous Australians need to quickly address actions which will reinvigorate that landscape connection and independence.

In addition to these explorations of personal or cultural connections to environment, the fourth author examined ideological connections to environment - not of self but of others, specifically rural landholders (Mahoney, 1995). In this article the author's research was concerned with "explicating the manner by which a person comes to understand and relate to his or her environment" (Mahoney, 1995, p. 15). He identified four special ways of knowing or distinct positions, which were termed "men of the land", "earth people", "other agenda people", and "unaligned individuals", each of which represented "an orientation of the total person, a way of being towards the land" (p. 22). The first two reflected different kinds of attachment to the land (maintaining its productivity versus conservation with limited kinds of low impact land use), while the third position was characterised by a detached view of the land, and the fourth by an identification only with its productive mode. The author concludes by arguing that these positions illuminate the ideological power of particular places or contexts.

Where's Place? Missing or Displaced?

These findings initially seemed surprising and generated a search for explanations of why a sense of place generally seemed to be missing from Australian environmental education research, at least as reflected in this 11 year snapshot of this research. What does the lack of attention to sense of place in environmental education research suggest? Are the concerns of Australian environmental education researchers displaced from the Australian environment? Is this merely a reflection of other research priorities in environmental education (or what is considered important in environmental education research)?

One explanation is that in the decade of the 1990s sense of place was not commonly connected or associated with environmental education and research on sense of place was published elsewhere in other fields, such as in environmental psychology, human geography, and architecture and planning. Attention to the idea and value of place-based education and pedagogy has only (re)emerged in recent years (Greenwood, 2008; Gruenewald & Smith, 2008; Gruenewald, 2003; Smith, 2002, 2008; McKenzie, 2008; Stevenson; 2008). Yet, if this was the case, it still suggests that place attachments or identities in relation to the Australian landscape were not treated as central to their work by environmental education scholars in this country - at least prior to place-based education becoming a popular topic.

Another explanation might be found in theories of place attachment. Trigger refers to our "primal landscapes" as places where we spent childhood, youth, working life, etc that are replete with memories and nostalgic experiences. This is the first of two components of Milligan's (1998) interactionist-based theory of place attachment: "(a)

memories of an individual's past experiences at a particular place (its interactionist past), and (b) experiences that an individual believes are likely to occur at a particular site (interactionist potential)" (cited in Chamlee-Wright & Storr, 2009, p. 618). Emphasising that social interactions are imbued with some form of meaning, Milligan argues that "when the interaction involves a higher degree of meaning, whether or not that meaning is perceived at the time, the place becomes the site of place attachment" (cited on p. 618).

These two distinct components suggest that initially a place attachment could be a stimulus or part of a significant life experience that motivates an interest in environmental education. However, place attachment may not be seen as a site that drives a research agenda, especially if it does not serve to create "a higher degree of meaning" than what has already been processed in reaching a belief about the need for environmental education. This explanation is supported by a theory of affordances as well as the concepts of place identity and place dependence introduced earlier.

The idea of a relationship with place underlies Gibson's (1979) "theory of affordances" (Brooks, 2010), the premise of which is that in any place some aspect of the environment has functional significance for the individual. This functional significance suggests an instrumental view of place attachment and also invokes the concept of place dependence which has been described as "the instrumentality of a setting to serve one's needs" (among those scholars who argue for the distinct constructs of place identity and place attachment as component of place attachment) (see Stedman, 2003, p. 683). Both constructs may seem to capture the nature of the productive relationships to land found by Mahoney (1995) among his "men of the land" and "unaligned individuals". However, the argument that these constructs can be readily separated from place identity has been questioned as failing to recognise the complexity of the relationships among them (Stedman, 2003). This critique would seem to be supported by Mahoney's (1995) research which revealed that "men of the land" have a commitment to their view of correct landcare practices as well as "a respect for the power of nature". This suggests the inappropriateness or oversimplification of treating, for example, the "committed conservationists" as reflecting place identity in the relationship with the land while "the men of the land" represent place dependence:

each position represents an orientation of the total person, a way of being toward the land. While it is conceptually possible to analyse this in terms of particular forms of knowledge, beliefs, attitudes and behaviours, to equate the sum of these with the totality of each position would conflict with this fundamentally holistic existentiality. (Mahoney, 1995, p. 22)

The relationship among these dimensions of attachment, dependence and identity are important for understanding the significance of place in the work of environmental education researchers and consequently raising concerns when it is absent. Are there parallels to Mahoney's rural landholders for environmental education researchers? Do they have similar relationships to place?

While Trigger focused on multiple cultures arising from our genealogy, there are also multiple cultures associated with our professional identities and sense of belonging to professional communities or places. The strength of our attachments to these professional places depends on their meaningfulness for our intellectual interests, orientations, and ideologies, as well as our personal beliefs, values and relationships. As Scott and Gough (2003) identified from their observations of environmental education conferences in North America, there are many different interests that motive environmental educators and environmental education researchers (e.g., sharing the joy of wilderness, using the nonhuman and/or built environment to achieve conservation or sustainability goals,

promoting behaviour change, promoting a particular social order). These attachments have been shaped by personal, social, educational and intellectual histories, including the orientations of universities attended and the interests and ideologies of research supervisors. Our intellectual attachments or dependencies are as likely for most of us — maybe even more likely given academic specialisations - to be with colleagues across the world as ones across the corridor. These attachments can be similar to, different from or, most likely, connected in some way to those emanating from our familial and cultural roots. This suggests that our senses of place are multi-dimensional and multi-layered involving multiple interrelated personal, professional and political identities and cultures of belonging.

Place is dynamic and our significant places are constantly being changed by wider social, economic and political factors. People also have multiple identities and if circumstances change, or an opportunity for change arises, then different aspirations may be energised and new or other identities and desires may be activated. Wider contextual factors shape the professional landscape in which environmental education scholarship in Australia (or elsewhere) is carried out. This raises such questions as: Have cultural and accountability concerns for performativity (through national and global comparisons) and establishing an international reputation discouraged a focus on local place-based issues? Has globalisation and international exchanges and movement of academics reduced a concern for the local? Have place dependencies come to dominate our place identities?

Although not explicit about the role of place in their research, Australian environmental education researchers do show a concern for context. They recognise that context matters in educational research, from the socially critical scholarship (which was identified in the previous article in this issue as a distinctive characteristic of Australian environmental education research), with its concern for the macro context, to the micro concerns of specific programs and activities to foster environmental learning.

However, in intellectualising the role of context have environmental education researchers tended to depersonalise their connections and relationships to our landscape? In pursuing our professional interests and identities have we lost the personal place attachments we formed in our pre-scholar years that motivated many of us to become environmental educators or allowed our place identities to be displaced by different kinds of place dependencies? Although critical theorists argue the personal is political, could the concern for the political as well as the professional have deflected some attention from our personal relationships with the nonhuman world?

Why Might Sense of Place Matter in Australian Environmental Education Research?

Finally, it is important to return to the question of why place attachments should matter to environmental education research. Although most literature emphasises the social constructions of sense of place rather than the characteristics of the physical environment, landscape attributes have been identified as contributing to the constructed meanings of sense of place (Stedman, 2003). Stedman argues that "specifiable mechanisms", such as the characteristics of a place create parameters that give form to place meanings and attachments that have been "predominantly seen as products of shared behaviors and cultural processes" (p. 671). The perceived quality of a place is one influence on these meanings (Mesch & Manor, 1998). Clearly some landscapes are richer in their natural or cultural attributes than others and if attributes of the landscape are foundations of attachment (Stedman, 2003), then people's place attachments can be enhanced or disrupted by their experiences of the quality of natural

or cultural amenities. An awareness of the influence of these amenities on their wellbeing and feelings of place connections is likely to increase the level of commitment to place and motive individuals and communities to want to protect such assets. Mahoney (1995) revealed special ways of knowing about place, we also need to consider special places and what makes them special.

An interesting parallel between place meaning making and Kieran Egan's theory of imagination is drawn by Fettes and Judson (2011). These authors argue that "three features of place-making - emotional engagement, active cognition and a sense of possibility – are all hallmarks of the imagination" (p. 125) and thus the theory suggests the potential of connections to place to engage the imagination. They interpret sense of possibility to mean that "there is more to a place than meets the eye" and "a place could be other than it is" (p. 124). The ability to imagine the possibility of deeper connections to a place of familiarity and attachment, or of the degradation or loss of such a place (and of one's role in sustaining or recreating it), can create an understanding and sense of fragility that becomes part of one's relationship with other places (Fettes & Judson, 2011). Noting that Egan (2005) refers to imagination as a cognitive tool (for learning, literacy and theoretic thinking), these authors point out that we lose an important cognitive tool if this kind of imagination is not tapped. Engaging the affect and the imagination, as well as cognition, is critical not only in developing a sense of place - a bond between people and places - but also in turn in developing an understanding and sense of humanity as part of, rather than displaced from nature.

Conclusion

How do personal and professional connections to multiple, but very different and geographically dispersed, landscapes shape the research and writing of Australian environmental education scholars? From the snapshot of publications in AJEE over the decade of the 1990s, it seems very little. Australian environmental education researchers, at least as measured by the articles published in AJEE in the decade of the 1990s, have generally not been concerned with sense of place, either their own or that of others. Only four of 67 articles were identified as addressing sense of place. Yet these four articles that do speak to place illuminate and contribute to, in different ways and to different degrees, our understanding of the significance of sense of place in the relationship of individuals to their biophysical and cultural environments.

The international environmental education literature on place, albeit most notably in the past decade rather than the 1990s, also makes clear that a place-based focus can be an emotionally and cognitively engaging context for learning and a source for stimulating and sustaining a concern for the nonhuman world. Given this more recent attention to place-based education it will be interesting to see, as recent articles in AJEE are analysed, if more Australian researchers have begun to address place attachments and identities. Will a clearer place for our personal, professional or political place attachments emerge over time among Australian environmental education scholars? Or will ambiguities of place – of personal and professional place identities – (continue to) be reflected in our environmental education scholarship?

If the unique characteristics and beauty of Australian landscapes are to be sustained for future generations, then environmental education research might draw more extensively and intensively on place attachments. The power of the nonhuman world to emotionally transport and spiritually transform us is captured in the landscape paintings of the Romantic movement of the late 18th and early 19th century. These artists filled their canvases with a free play of emotion and imagination. Maybe it is time for a similar inspiration to enable us to re-connect our scholarship to our passion for place that ignited many of us to originally enter the field of environmental education.

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References

- Ardoin, N. (2006). Towards an interdisciplinary understanding of place: Lessons for environmental education. *Canadian Journal of Environmental Education*, 11, 112–126.
- Beringer, A. (1999/2000). On ecospirituality: True indigenous Western. *Australian Journal of Environmental Education*, 15-16,17–22.
- Brooks, T. (2010). "Every child has a ditch or ought to": Investigating children's place attachments through collage and stories. Unpublished B.Ed. (Hons) thesis. James Cook University.
- Casey, E. (1997). The fate of place: A philosophical history. Berkeley: University of California Press.
- Chamlee-Wright, E., & Storr, V. (2009). "There's no place like New Orleans": Sense of place and community recovery in the ninth ward after Hurricane Katrina. *Journal of Urban Affairs*, 31(5), 615–634.
- Egan, K. (2005). An imaginative approach to teaching. San Francisco, CA: Jossey-Bass. Ellis, J. (2005). Places and identity for children in classrooms and schools. *Journal of the Canadian Association for Curriculum Studies*, 3(2), 52–73.
- Everett, J. (1997). Aboriginal education and colonialism: Our earthlinks under threat. *Australian Journal of Environmental Education*, 13, 11–16.
- Fettes, M. & Judson, G. (2011). Imagination and the cognitive tools of place-making. Journal of Environmental Education, 42(2), 123–135.
- Fien, J. (1991). Toward a school-level curriculum inquiry in environmental education. *Australian Journal of Environmental Education*, 7, 17–29.
- Gibson, J. (1979). The theory of affordances. In R. Shaw & J. Bransford (Eds.), *Perceiving, Acting, and Knowing: Toward an Ecological Psychology.* Hillsdale, N.J.:Lawrence Erlbaum Associates.
- Gough, A. (1997). Education and the environment: Policy, trends and the problems of marginalisation. Melbourne: Australian Council for Educational Research.
- Greenwood, D. (2008). A critical pedagogy of place: From gridlock to parallax. *Environmental Education Research*, 14(3), 336–348.
- Gruenewald, D. (2003). Foundations of place: A multi-disciplinary framework for place-conscious education. *American Educational Research Journal*, 40, 619–654.
- Gruenewald, D. & Smith, G. (Eds.) (2008). *Place-based education in the global age:* Local diversity. New York: Lawrence Erlbaum Associates.
- Hay, R. (1998). Sense of place in a developmental context. *Journal of Environmental Psychology*, 18, 5–29.
- Mahoney, D. (1995). The significance of 'special ways of knowing' for environmental education. *Australian Journal of Environmental Education*, 11, 13–26.
- McKenzie, M. (2008). The places of pedagogy: Or, what can we do with culture through intersubjective experiences? *Environmental Education Research*, 14(3), 361–373.
- Mesch, G., & Manor, O. (1998). Social ties, environmental perception, and local attachment. *Environment Behavior*, 30(4), 504–519.

- Michaela, C. S. (1987). Towards an Australian spirituality. Occasional essay supplement. Eremos Newsletter, September 1987.
- Milligan, M. J. (1998). Interactional past and potential: The social construction of place attachment. *Symbolic Interaction*, 21(1), 1–33.
- Scott, W., & Gough, S. (2003). Sustainable development and learning: framing the issues. London: Routledge Falmer.
- Skamp, K. (1991). Spirituality and environmental education. Australian Journal of Environmental Education, 7, 79–86.
- Slattery, D. (1999/2000). Adult environmental education and ecology. *Australian Journal of Environmental Education*, 15/16, 85–93.
- Smith, G. (2002). Place-based education: Learning to be where we are. *Phi Delta Kappan*, 83(8), 584–94.
- Smith, G. (2008). Oxymoron or misplaced rectification. *Environmental Education Research*, 14(3), 349–352.
- Stedman, R. (2003). Is it really just a social construction? The contribution of the physical environment to sense of place. *Society and Natural Resources*, 6(8), 671–685.
- Stevenson, R. (1997). Developing habits of environmental thoughtfulness through the in-depth study of select environmental issues. *Canadian Journal of Environmental Education*, 2, 183–201.
- Stevenson, R. (2008). A critical pedagogy of place and the place(s) of critical pedagogy. *Environmental Education Research*, 14(3), 353–360.
- Trigger, D. (2008). Place, belonging and nativeness in Australia. In F. Vanclay, M. Higgins, & A. Blackshaw (Eds.). *Making sense of place: Exploring concepts and expressions of place through different senses and lenses*. Canberra: National Museum of Australia.
- Tuan, Y. (1977). Space and Place: The Perspectives of Experience. Minneapolis: University of Minnesota Press.

Author Biography

Bob Stevenson is Professor and Tropical Research Leader (Education for Environmental Sustainability) in The Cairns Institute and the School of Education at James Cook University in Cairns. He was involved in EE curriculum and professional development in the Queensland Education Department and in the founding of AJEE before embarking on an academic career in the US for 26 years. He is co-editor of the Journal of Environmental Education and the International Handbook of Research on Environmental Education.