

Place-Based Geoscience Teaching in Support of Sustainability

Steven Semken, Arizona State University

40 SELECTED REFERENCES

(which, in turn, will lead you to many more useful ones)

Place and Sense of Place

1. Relph, E. 1976. *Place and placelessness*. London: Pion Limited.
2. Tuan, Y. F. (1977). *Space and place: The perspective of experience*. Minneapolis, MN: University of Minnesota Press.
3. Steele, F. (1981). *The sense of place*. Boston, CBI Publishing.
4. Brandenburg, A. M., & Carroll, M. S. (1995). Your place or mine?: The effect of place creation on environmental values and landscape meanings. *Society and Natural Resources*, 8, 381-398.
5. Basso, K.H. (1996). *Wisdom sits in places*. Albuquerque, NM: University of New Mexico Press.
6. Casey, E. S. (1996). How to get from space to place in a fairly short stretch of time: Phenomenological prolegomena. In S. Feld & K. H. Basso (Eds.), *Senses of place* (pp. 13-52). Santa Fé, NM: School of American Research Press.
7. Williams, D. R., & Stewart, S. I. (1998). Sense of place: An elusive concept that is finding a home in ecosystem management. *Journal of Forestry*, 96, 18-23.
8. Stedman, R. C. (2003a). Sense of place and forest science: Toward a program of quantitative research. *Forest Science*, 49, 822-829.
9. Stedman, R. C. (2003b). Is it really just a social construction?: The contribution of the physical environment to sense of place. *Society and Natural Resources*, 16, 671-685.
10. Cresswell, T. (2015). *Place: an introduction (Second edition)*. Malden, MA: Wiley-Blackwell.

Place-Based Education

1. Elder, J. (1998). Teaching at the edge, in The Orion Society (Eds.), *Stories in the Land: A place-based environmental education anthology* (pp. 1-15): Great Barrington, Massachusetts: The Orion Society.
2. Kawagley, A. O., & Barnhardt, R. (1999). Education indigenous to place: Western science meets Native reality. In G. A. Smith & D. R. Williams (Eds.), *Ecological education in action: On weaving education, culture, and the environment* (p. 117-140). Albany, NY: State University of New York Press.
3. Woodhouse, J. L., & Knapp, C. E. (2000). *Place-based curriculum and instruction: Outdoor and environmental education approaches* (Digest EDO-RC-00-6). Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools, Appalachia Educational Laboratory. (ERIC Document Reproduction Service No. ED448012).
4. Cajete, G. (2000). *Native science: Natural laws of interdependence*. Santa Fé, NM: Clear Light Publishers.

5. Gruenewald, D. A. (2003a). The best of both worlds: A critical pedagogy of place. *Educational Researcher*, 32, 3-12.
6. Gruenewald, D. A. (2003b). Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal*, 40, 619-654.
7. Sobel, D. (2004). *Place-based education: Connecting classrooms and communities*. Great Barrington, MA: The Orion Society.
8. Semken, S. (2005). Sense of place and place-based introductory geoscience teaching for American Indian and Alaska Native undergraduates. *Journal of Geoscience Education*, 53, 149-157.
9. Ault, C. R. (2008). Achieving *querencia*: Integrating a sense of place with disciplined thinking. *Curriculum Inquiry*, 38(5), p. 605-637.
10. Apple, J., Lemus, J., & Semken, S. (2014). Teaching geoscience in the context of culture and place. *Journal of Geoscience Education*, 62(1), 1-4.

Examples of Place-Based Curriculum and Instruction

1. Semken, S. C., & Morgan, F. (1997). Navajo pedagogy and Earth systems. *Journal of Geoscience Education*, 45, 109-112.
2. Gruenewald, D. A., & Smith, G. A. (Eds.). (2008). *Place-based education in the global age: Local diversity*. New York: Lawrence Erlbaum Associates.
3. Palmer, M. H., Elmore, R. D., Watson, M. J., Kloesel, K., & Palmer, K. (2009). *Xoa:dau to Maunakui*: Integrating indigenous knowledge into an undergraduate Earth systems science course. *Journal of Geoscience Education*, 57(2), 137-144.
4. Miele, E. A., & Powell, W. G. (2010). Science and the city: Community cultural and natural resources at the core of a place-based science teacher preparation program. *Journal of College Science Teaching*, 40(2), p. 40-44.
5. Smith, G. A., & Sobel, D. (2010). *Place- and community-based education in schools*. New York: Routledge.
6. Tippins, D., Mueller, M., van Eijck, M., & Adams, J. (Eds.). (2010). *Cultural studies and environmentalism: The confluence of ecojustice, place-based (science) education, and indigenous knowledge systems*. New York: Springer.
7. McCoy, T. J., 2011, *asiihkiwi neehi kiisikwi*: A multi-generational, culturally embedded Earth and Sky curriculum for the Myaamiaki [abs.]: Proceedings, 42nd Lunar and Planetary Science Conference, The Woodlands, Texas, <http://www.lpi.usra.edu/meetings/lpsc2011/pdf/2227.pdf>.
8. Semken, S. (2011). A sense of the American Southwest: Place-based Earth system science for diverse students. *In the Trenches*, 1(3): 1-4.
9. Chinn, P. W. U., Businger, S., Lance, K., Ellinwood, J. K., Stone, J. K., Spencer, L., McCoy, F. W., Puakea Nogelmeier, M., & Rowland, S. K. (2014). *Kahua A'o*: A learning foundation: Using Hawaiian language newspaper articles for Earth science professional development. *Journal of Geoscience Education*, 62(2), 217-226
10. Kirkby, K. C. (2014). Place in the city: Place-based learning in a large urban undergraduate geoscience program. *Journal of Geoscience Education*, 62(2), 177-186.

PLUS: Two-part special themed issue on **Teaching Geoscience in the Context of Culture and Place**: *Journal of Geoscience Education*, 62(1-2), February and May 2014.

Assessment of Place-Based Teaching and Learning

1. Shamai, S. (1991). Sense of place: An empirical measurement. *Geoforum*, 22, 347-358.
2. Young, M. (1999). The social construction of tourist places. *Australian Geographer*, 30, 373-389.
3. Williams, D. R., & Vaske, J. J. (2003). The measurement of place attachment: Validity and generalizability of a psychometric approach. *Forest Science*, 49, 830-840.
4. Riggs, E. M. (2005). Field-based education and indigenous knowledge: Essential components of geoscience education for Native American communities. *Science Education*, 89, 296-313.
5. Semken, S., & Butler Freeman, C. (2008). Sense of place in the practice and assessment of place-based science teaching. *Science Education*, 92(6), p. 1042-1057.
6. Semken, S., Butler Freeman, C., Bueno Watts, N., Neakrase, J., Dial, R., & Baker, D. (2009). Factors that influence sense of place as a learning outcome of place-based geoscience teaching. *Electronic Journal of Science Education*, 13, 136-159.
7. Endreny, A. H. (2010). Urban fifth-graders' conceptions during a place-based inquiry unit on watersheds: *Journal of Research in Science Teaching*, 47(5), p. 501-517.
8. Kudryavtsev, A., Krasny, M. E., & Stedman, R. C. (2012). The impact of environmental education on sense of place among urban youth. *Ecosphere*, 3(4):29, 1-15.
9. Williams, D., & Semken, S. (2011). Ethnographic methods in analysis of place-based geoscience curriculum and pedagogy, in Feig, A. P., and Stokes, A. (eds.), *Qualitative research in geoscience education: Geological Society of America Special Paper 474*, p. 49-62.
10. Ward, E. G., Semken, S., & Libarkin, J. (2014). The design of place-based, culturally informed geoscience assessment. *Journal of Geoscience Education*, 62(1), 86-103.