

Book Review

Robertson, Margaret and Gerber, Rod (ed.). 2000. *The Child's World: Triggers for Learning*. Melbourne: ACER Press.

Spatial activities, experiences, and abilities have long been of concern to psychologists and geographers. However, this research is rarely focused on children (Goldberg and Kirman 1990, Liben and Downs 1989). *The Child's World: Triggers for Learning* brings together many educators and scholars from various academic disciplines around the world to examine developmental aspects of environmental cognition, the relationship between spatial ability and spatial behavior and reasoning in childhood, and children's sense of place and sense of self. A main theme throughout this edited volume is the importance of listening to the voices of the children we teach and making their reality a focal point in their education. The authors argue we need to understand how our students construct their own identity and sense of place; how they think and reason spatially; how they view their relationship with the environment; and how they are involved in the time-space compression of the post-modern world.

Although there is a large body of research dedicated to understanding environmental cognition, sense of place, and human spatial abilities (Alyman and Peters 1993, Freundschuh 1992, Catling 1979, Downs and Stea 1973), Hart (1979) clearly demonstrated the importance of observing the environmental experiences of children and listening to their stories of space and place. Several others have followed Hart's inquiry with children (Herman et al. 1987, Webley and Whalley 1987, Golledge et al. 1985, Matthews 1984, 1985). However, there is not a collection of work on spatial cognition and perceptions of children as accessible and applicable as *The Child's World: Triggers for Learning*. Some work, although well intentioned, fails to see the world from the point of view of the child. This is certainly not the case with *The Child's World: Triggers for Learning*. The editors, Margaret Robertson and Rod Gerber, along with the contributing authors, focus on the child throughout the presentation of research on children's thinking, experiences, reasoning, and perceptions.

The book examines issues related to geographic education in terms of pedagogy, curriculum, psychology, learning, and philosophy. Chapters

are organized in four parts. Part 1, Perspectives on Children's Thinking, provides a conceptual overview for the rest of the book with discussions on: everyday cognition, imagination and influences on the developing child's cognition (Robertson); environmental cognition as a key component to life-long education (Gerber); cross-cultural views on environmental development, learning, and education (Stea, LeFebre, Pinon and Blaut); and making philosophy a part of children's educational experience in order to encourage construction of self and meaning (Splitter). Part 2, Experiences of Place and Space, examines the worlds which our children inhabit with presentations concerning: the connection between informal geographic learning and non-school, leisure activities (Rikkinen); the role of information technology on learning (Fluck); the influence of a child's sense of place on his/her identity development (Robertson); and how children differ in their memories of place as expressed through writing, drawing, and conversation (Stratford). Part 3, Spatial-Visual Reasoning, presents research on the relationship between a child's spatial visualization ability and his ability to understand and reason about the world. Chapters focus specifically on: using graphics to facilitate learning and construct meaning (Gerber); children's differing experiences using and applying maps and line graphs (Ottosson and Aberg-Bengtsson); the development of a sequence of spatial skills and their application to geographic analysis (van der Schee); and student understanding and application of patterns and relationships in both real-world and mathematical space (Taplin and Robertson). Environmental Experience: Perceptions and Judgements, Part 4, includes chapters which highlight: a child-centered approach in using our student's own world as a trigger for learning (Slater and Morgan); the development of spatial independence outside of the formal educational setting among children with learning disabilities (Beveridge and Wiegand); cross-cultural studies examining environmental knowledge, attitudes, and behaviors (Lee); children's perceptions of the environment and the future from the 'Land-Use—UK' project as an impetus for more school action research projects (Robertson and Walford); and the implementation of environmental workshops in a variety of settings as an educational alternative to reach children and encourage their community involvement (Cuevas, Millan, and Reid).

There are several strengths of this compilation of research and

action projects involving children and geography. Two are particularly noteworthy. First, the breadth of the discussion is admirable. While maintaining a focus on children and their worlds, the authors discuss developmental and cognitive psychology, philosophy, and actual applied projects in and out of the formal school setting. Additionally, numerous concrete suggestions for incorporating the child's world in geographic education to make the learning experience more meaningful, relevant, and lively are presented. The authors' inclusion of research from various communities across the globe (among these Australia, Brazil, China, Finland, Hong Kong, Italy, Mexico, the U.K., and the U.S.) reflects the geographic breadth of this book and underscores the importance of incorporating the child's view in our work as geographic educators. A second strength revolves around the theoretical framework of the collection. Rather than viewing education as a transmissive process (teacher bestows knowledge to students), the authors expound on ways to create a transformative experience integrating the student's own world-view and global, environmental, or cartographic understanding. Educators searching for stimulating discussion and examples will reach for *The Child's World: Triggers for Learning* for years to come.

While I appreciated the editors' efforts to introduce each of the four sections, their brief notes did not adequately tie together the chapters theoretically or practically. A more thorough framework at the beginning of each section would have been beneficial by prompting recall of prior knowledge, reviewing the relevant literature, and setting the stage for the chapters that followed. Additionally, the short concluding chapter discussing pedagogical implications, final comments, and recommendations was a bit thin. The clearly identified themes of the book (identity building, space and place connections, everyday lives as keys to cognition, environmental awareness, environmental action in learning, and a curriculum for inclusion) were thought provoking. I was left wanting more discussion as I turned the last page. With this said, however, these shortcomings detract little from the informative and stimulating effect of this volume.

Today, it seems as if the focus in education is more on standardized curricula and testing than on the reality of children's classrooms. This book points to the importance of listening to the

children in our classes and using their reality as the starting point of learning. David Ausubel (1968, epigraph) wrote what is still timely advice. "The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly." As the research in this book suggests, much of what our children already know is obtained from their experiences and involvement in worlds quite separate from formal educational settings. As geographic educators, we can discover many applicable lessons within *The Child's World: Triggers for Learning* to help us as we look for meaningful experiences in the lives of our students upon which to build a stronger understanding of the world and themselves.

REFERENCES

- Alyman, C. and Peters, M. 1993. Performance of male and female children, adolescents, and adults on spatial tasks that involve everyday objects and settings. *Canadian Journal of Experimental Psychology* 47: 730-747.
- Ausubel, David. 1968. *Educational Psychology: A Cognitive View*. New York: Holt, Rinehart, and Winston.
- Catling, S.J. 1979. Maps and cognitive maps: the young child's perception. *Geography* 64: 288-296.
- Downs, R.M. and Stea, D. 1973. *Image and Environment: Cognitive Mapping and Spatial Behavior*. Chicago: Aldine.
- Freundschuh, S.M. 1992. *Spatial Knowledge Acquisition of Urban Environments from Maps and Navigation Experience*. Unpublished Ph.D. Dissertation. University of New York at Buffalo.
- Goldberg, J. and Kirman, J.M. 1990. Sex related differences in learning to interpret landsat images and in road map reading in young adolescents. *Journal of Geography* 89: 15-25.
- Golledge, R.G., Smith, T.R., Pellegrino, J.W., Doherty, S. and Marshall, S.P. 1985. A conceptual model and empirical analysis of children's acquisition of spatial knowledge. *Journal of Environmental Psychology* 5: 125-152.
- Hart, R. 1979. *Children's Experience of Place*. New York: Halstead Press.

- Herman, J.F., Heins, J. and Cohen, D. 1987. Children's spatial knowledge of their neighborhood environment. *Journal of Applied Developmental Psychology* 8: 1-15.
- Liben, L.S. and Downs, R.M. 1989. Understanding maps as symbols: the development of map concepts in children. In *Advance in Child Development and Behavior*, 22 ed. H.W. Reese. New York: Academic Press.
- Matthews, M.H. 1984. Cognitive mapping abilities of young boys and girls. *Geography* 69: 327-336.
- Matthews, M.H. 1985. Young children's representations of the environment: a comparison of techniques. *Journal of Environmental Psychology* 5: 261-278.
- Webley, P. and Whalley, A. 1987. Sex differences in children's environmental cognition. *Journal of Social Psychology* 127: 223-225.

Janet S. Smith taught high school geography and was active in the Virginia Geographic Alliance before she received her Ph.D. in Geography from the University of Georgia. Her research interests include cognitive maps and mapping abilities of children. She will begin teaching cartography and GIS at Slippery Rock University in Slippery Rock, Pennsylvania in January 2001.