Book Reviews

The Design of Childhood: How the Material World Shapes Independent Kids

Alexandra Lange New York: Bloomsbury Publishing, 2018. Introduction, photographs, acknowledgments, notes, bibliography, and index. 416 pp. \$30.00 cloth. ISBN: 9781632866356

Alexandra Lange packs a lot into this engaging, informative, and provocative book. At various points throughout, one can find insights into architectural history, social history, child development, environmental history, urban planning, material science, even autobiography. A design critic married to an architect, Lange has built a highly respected career assessing things and places, especially those involving domestic life. And when she had her first child—she dedicates the book to her two children—she became especially fascinated by children's *stuff* (her italics), not just commercial toys but what, how, and where kids used stuff beyond the home, in school, in playgrounds, and in their larger community. If designed and used properly, Lange concludes—and she does not take an entirely uncritical stance—these things and places have high educational value: a child's environment, she argues, can be what educational philosopher Loris Malaguzzi has called "the third teacher," as important to learning as the home and the school.

Lange surveys how this third teacher can be, and has been, used with regard to one set of items-blocks-and four environments: house, school, playground, and city, each of which is given its own chapter, bringing together topics that usually appear only separately in books and articles. Throughout, she identifies a variety of places and things (stuff) that give children opportunities to explore, create, and learn. This variety includes stuff and spaces as disparate as the corrugated box (still one of the "toys" most favored by kids); the ever popular and uniquely educational LEGO blocks; the 3-D video building game Minecraft; the architecturally progressive Crow Island School in Winnetka, Illinois; and "junk" playgrounds filled with boards, tires, and tools rather than formal apparatus. She also includes fascinating insights about how urban planning can be used to benefit children, pointing out

as an example the False Creek area in Vancouver, British Columbia. Along the way, Lange provides historical background to almost every subtopic, featuring important pioneers and game changers such as Johann Heinrich Pestalozzi, Friedrich Froebel, Maria Montessori, John Dewey, and Ludwig Mies van der Rohe.

To her credit, Lange recognizes that design should not be something imposed on children to satisfy adult assumptions about what children need. She situates children at the center of her focus and features designs of all sorts that enable children to learn best when they follow their own interests. I especially appreciate how she weaves the concept of independence from her subtitle into the analysis, paying attention to how children learn from their own experimentation, including taking risks, by creating and using their own devices.

Lange realizes, of course, that many of the design benefits she describes, especially in housing and schools, are beyond the reach of low- and moderate-income families, and it is unlikely that private markets and urban governments will invest in the reformed spaces she most appreciates. But it still is inspiring to have in front of us the kind of thorough and imaginative thinking that Lange presents.

—Howard Chudacoff, Brown University, Providence, RI

Lifelong Kindergarten: Cultivating Creativity through Projects, Passion, Peers, and Play Mitchel Resnick Cambridge, MA: The MIT Press, 2017. Foreword, further readings and resources, acknowledgments, index. 208 pp. \$34.95 cloth. ISBN: 9780262037297

In this book Mitchel Resnick, LEGO Papert Professor at MIT (Massachusetts Institute of Technology), leads readers through his career in designing and studying learning experiences with youth. Lifelong Kindergarten is structured around the themes of projects, passion, peers, and play as they relate to the cultivation of creativity. He presents the creative learning kindergartners exude as a spiral that follows the acts of imagining, creating, playing, sharing, and reflecting. The ultimate message in Lifelong Kindergarten is that creative thinking can be carried into aspects of our lives as learners beyond that playful, joyful, but all-too-brief kindergarten school year.

Resnick parses out guidance in a digestible and relaxed manner. Lifelong Kindergarten is a smooth tome, and although he invokes scholars along the way, it is by no means a distant or excessively academic text. Instead, Resnick tells readers stories from his experience at MIT building Scratch, the Computer Clubhouse, and his work with LEGO Mindstorms. Each chapter ends with an interview by Resnick of a young scholar who continues to engage with the online Scratch community or the Computer Clubhouse in that scholar's working life. This balances firsthand accounts from Resnick and is in alignment with the idea that knowledge surrounding creative thinking and play is collaborative. He outlines specific calls to action for his audience in the form of ten tips for parents, teachers, and designers. This is a