

# Book Review

**The Responsive Environment: Design, Aesthetics and the Human in the 1970s.** By Larry D. Busbea. Minneapolis: University of Minnesota Press, 2020. xxvi + 286 pp. Illustrations, notes, and index. Cloth \$120.00, paper \$30.00.

This book covers theories of responsive environments in relation to art, architecture, technology, cyberculture, and design within the United States' counterculture in the 1970s. Larry Busbea has written a fascinating read covering well-known authors and architects as well as long-forgotten thinkers and practitioners of design.

Busbea begins with a splash. He introduces the completely unknown (at least to me) theorist of human perception Serge Boutourline (1932–82), who was also an artist, designer, and inventor. To Boutourline, the environment was both an object and an apparatus of perception that could be mediated through the computer. In the 1960s, Boutourline would develop a situational approach to environmental perception that inspired a series of designers, including Charles and Ray Eames. Through the lens of perceptual psychology, Busbea then introduces a set of other phenomenological-oriented thinkers, leading up to a discussion of Gregory Bateson's cybernetic critique of the modern scientific method. The book also offers an insightful discussion of Marshall McLuhan's thoughts about the synonymy between the medium and the environment.

*The Responsive Environment* is not about environmentalists, environmentalism, or even the environment "out there" in the shape of trees, mountains, or whatever. Instead, Busbea investigates the

environmental and architectural psychology of perception and the experience of designed space on the human body and mind. The book includes a history of the study of the patterns of human behavior in different designed environments, such as the impact of a building on human behavior or social movements within a public space.

The work of the architect and design theorist Christopher Alexander and his Center for Environmental Structure at Berkeley is given due recognition. Though, surprisingly, there is no mention of his teacher and co-author Serge Chermayeff and their important book *Community and Privacy* (Doubleday & Company, 1963), which places environmental protection with the help of the computer at its core. Additionally, Howard Fisher's SYMAP computer program and pattern research at the Harvard Laboratory for Computer Graphics and Spatial Analysis are not mentioned, despite being arguably the origin of the geographical information system.

Busbea is a professor at the University of Arizona, which may explain a slight bias in his research toward architectural work and the academic thinking on the West Coast. Nonetheless, that is one of the strengths of the book. This focus has led him to specific content and individuals that are hardly discussed among historians of architecture and computing. For example, I learned about the Association of Man Environment Relations, a group I have never heard of before, and also the imaginative, esoteric, and short-lived journal *Evolutionary Environments: The Symbiotic Process Lab Forum* (1976–77). Not to mention the company Ecology, Tool & Toy, which filed a patent in 1972 for a soft control material to build ergonomic furniture that could breathe and respond to physical input from a person. It was similar to the water bed patented in 1971 by a corporation called Innerspace Environments for therapeutic purposes. These examples, among many, bring out interesting perspectives on the ways in which design thinkers recalibrated human relations to the world with imagination, curiosity, and also a sense of humor.

Some of the most engaging pages in the book recapture environmental programming, media technologies, and software computing. The computer is what brought together an eligible representation of the environment to the designer and the scientist. The merging of computer science with the language of biology brought about new ideas and proposals for rethinking the human condition. Busbea tells a story of how design moved away from creating objects toward a techno-aesthetic optimization and manipulation of the interfaces between the subject and the milieu. These cyber technologies offered a way of creating environments through the extensions of human capacities, including human consciousness. It was this technological enthusiasm that paved the way for organic architecture, including that of Arizona-based Paolo Soleri, a designer whose story ends the

book. Busbea is well aware of the relevance of his account to thinkers as diverse as Gilles Deleuze, Donna Haraway, and Bruno Latour.

Busbea has written an interesting and well-researched book providing new perspectives on well-known material while also highlighting other ways of thinking, people, and events that have hardly been discussed before.

**Peder Anker**

New York University

doi: 10.1093/envhis/ema034