

2015

Review: A Framework for Geodesign: Changing Geography by Design

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Steinitz, Carl, ed. 2012. *A Framework for Geodesign: Changing Geography by Design*. Redlands, CA: ESRI Press. 208 pp. \$79.95 (paperback). ISBN 978-1-58948-333-0

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Geodesign has become a buzzword in the past four years although its main origin goes back to the late 1960s, with the publication of McHarg's book *Design with Nature* (1969). Steinitz's book *A Framework for Geodesign: Changing Geography by Design* comes at a prime time since scholars, designers, and geographic information systems (GIS) professionals have been intrigued to understand and explore this "new" trend. Geodesign is such a hot topic these days that ESRI, the leading worldwide company in the GIS industry and publisher of this book, has been organizing annual *Geodesign Summit* meetings since 2012.

Geodesign is increasingly becoming part of planning scholarship and this book is a great contribution to that end. With more than four decades of academic and professional experience, Steinitz writes based on his extensive knowledge about geodesign which has been an old companion of his, leading his scholarship since he first started teaching at the Harvard Graduate School of Design in 1965. In his book, Steinitz proposes a comprehensive framework for those interested in learning and/or applying geodesign approaches in design projects. His intention is to not only explain in detail how the framework operates, but also to illustrate its use with various case studies. His book is organized in four parts, and culminates by connecting the framework with research, education, and practice in geodesign. This is a descriptive, process-driven book. Even though the author states that it is not a 'how to do' book, the combination of text flow, along with the diagrams, lists, and questions, makes the material very accessible for application.

In Steinitz's words, "Geodesign is an ongoing process of changing geography by design" (91). For him, geodesign is based on the interaction between design professions, the people of the

place, information technologists, and geographic sciences. Clearly, he is a big supporter of collaborative multidisciplinary teams. His proposed framework has six main questions and six corresponding models: 1) how should the study area be described? answered by representation models; 2) how does the study area operate? answered by process models; 3) is the current study area working well? answered by evaluation models; 4) how might the study area be altered? answered by change models; 5) what differences might the changes cause? answered by impact models; and 6) how should the study area be changed? answered by decision models.

With these questions and models in mind, the process of implementing a geodesign project becomes very well laid out in the reader's mind. These questions and models are the key ingredients of Steinitz' framework and are displayed in colorful diagrams in the vast majority of the chapters. This extensive use of images in the book may be related to Steinitz's strong belief that "standardizing color codes, graphic scales, and styles of representation is a critically essential part of a geodesign study" (122).

The framework, however, is much more complex than what is described above. Once in use, it needs three rounds of iterations. The first iteration follows the six questions above in ascending order, providing "the geodesign team with essential information to understand the context of the study" (27). The second iteration follows the six questions in descending order, providing "the geodesign team with an agreed-upon methodology for the study" (28). The third and final iteration follows the six questions again in ascending order, and happens when "the geodesign team carries out the study" (30). He names the first iteration as WHY questions, the second iteration as HOW questions, and the third iteration as WHAT, WHERE, and WHEN questions. Each iteration is based on a loop that includes questions, models, and the people of the place. For each iteration, new questions, diagrams, graphs, and many concepts are introduced. For

instance, process models (related to the question: how does the study area operate?) should be classified for the second iteration in eight levels of complexity: direct, thematic, vertical, horizontal, hierarchic, temporal, adaptive, and behavioral.

In part III, Steinitz describes how the framework can be applied to nine case studies, all but one of which he was directly involved with as a member of the geodesign team. The projects were developed for places in the U.S. and other countries, such as Italy, Costa Rica, Mexico, and United Kingdom. The cases differ from each other mainly with regards to the type of change model being applied (related to the question: how might the study area be altered?). The change models are indeed the part of the framework that is mostly related to the act of designing. The author uses the lens of a design professional to describe the cases. The perspective of information technologists, for instance, which should be equally important in the team, is not mentioned or referred to, leading to a designer point of view bias in the narrative.

It is important to highlight two main issues with regards to the book's use of figures and the U.S. centered perspective of the narrative. First, on one hand, the colorful diagrams can be very helpful for the visualization of the different concepts and can facilitate an understanding of the text, and some people might find them useful. On the other hand, when overused, figures can make readers confused especially when they are very different from each other, and other people might be distracted by them. Second, since the book is mostly based on the author's experience, it has a very specific geographic location in its narrative. However, the framework has global applicability. To minimize this bias, in the final part of the book, a few questions related to geodesign in developing countries could have been included as well. The framework is certainly already being applied formally or informally in various places around the world. Some of these places may face obstacles to implement the framework, such as including the people of the place in the geodesign

process, or providing good education for information technologists. Including issues like that in a research agenda would help promote the dissemination of geodesign.

There are several key strengths that make the book shine. First, a highlight of the book is how public participation is an integral part of the framework, reflecting how planning processes should be conducted. The people of the place, as Steinitz calls them, have a central role in all the iterations described above, and should be part of the framework loop as much as possible. In addition, there is no doubt that it is a very timely publication because of the ongoing interest in geodesign, and the fact that there are very few books currently available on the topic.

Knowing that one size fits all does not belong to a design dictionary, the author does a very good job suggesting a variety of applications for the framework, making it better reflect reality. For instance, when describing the evaluation models (related question: is the current study area working well?) during the second iteration, he connects the concepts with work he helped develop in La Paz, Mexico. This collection of possibilities comes from his extensive design experience, added to the fact that some external historical design-related ideas are inserted sporadically in the text. To illustrate, before introducing the complexity of process models, the author briefly describes the work of Fagg and Hutching (1930) to highlight that “landscapes are interrelated systems, with complex elements that are connected to each other” (64).

Because of its strong visual elements and the way it is organized, the book could certainly be adopted in planning studios that are design-related. Time allowing, students could focus on at least one of the three iterations proposed by the author. This idea is embedded in the text because many of the presented case studies took place in studios that Steinitz taught at Harvard, where he likewise conceptualized and tested his framework along the years. This book could also benefit

practitioners who are interested in changing geography by design while including public participation in the planning process and adopting a multidisciplinary approach.

References

Fagg, C. C., and G. E. Hutchings. 1930. *An Introduction to Regional Surveying*. Cambridge, UK: The University Press.

McHarg, I. L. 1969. *Design with Nature*. Garden City, NY: Natural History Press.