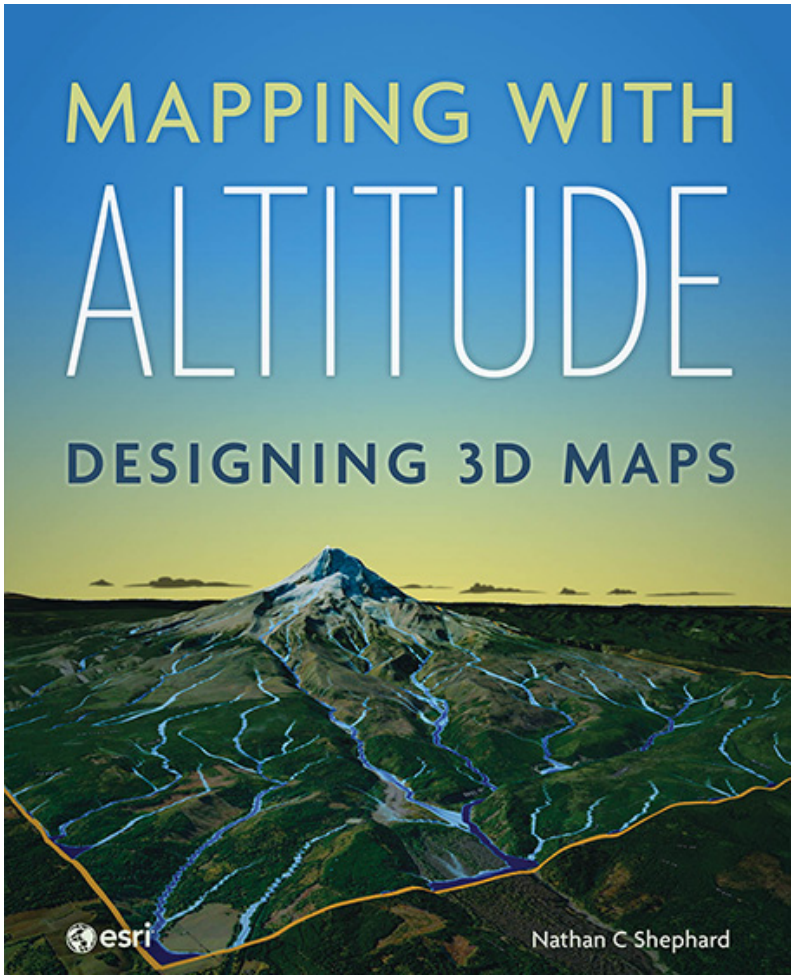
Book review: Mapping with Altitude: Designing 3D Maps

reviewed by Sam Kim



Mapping with Altitude | Banner

Shephard, N. C. *Mapping with Altitude: Designing 3D Maps*. Redlands, California: Esri Press, 2024. 280p. $84.99. ISBN: 978-1589485532

In *Mapping with Altitude: Designing 3D Maps,* Shephard takes the reader on a journey about mapping in the third dimension. This journey highlights the strengths

and weaknesses of using 3D in contrast to the more ubiquitous 2D maps. Shephard stipulates that with recent technological advancements, more advanced methods for mapping may now be used to display information in engaging new ways, thereby increasing accessibility to larger audiences. To that end, Shephard emphasizes the innovative aspect of mapping in 3D. He takes a more flexible approach to explaining practices by highlighting the art in the science of mapping, often pointing out that there is no cardinal rule.

Mapping with Altitude: Designing 3D Maps starts like many 'how-to' books: by selling the reader on the main topic. In Shephard's case, by showcasing several scenes depicting realistic cityscapes and thematic voyages. Throughout the introduction, common terminology is scaffolded into each example until the author transitions to starting a 3D mapping project at chapter 5, regarding an often-overlooked step to many projects: planning. The actual chapter is focused on final output but much of the contents highlight conversations that need to exist when starting a mapping project, including the skillset of the viewer, data resources available to the cartographer, as well as technical resources available to the viewer. What follows are several concepts that would be considered when developing a 3D map. The book is not without struggle, as it would have benefited from having a web-based companion for more advanced concepts like meshes, animations, and time.

Mapping with Altitude: Designing 3D Maps, while not cartographic, features several renderings, illustrations, and screenshots that serve as examples of practicing what was preached. What few historic maps that were featured merely served as examples to further the argument of opportunities available with 3D mapping in the current age of advanced graphics and HTML5.

Shephard, an Esri engineer, had every opportunity to push Esri's wealth of online tutorials and documentation throughout the book. Instead, the reader is provided a short list of helpful tutorials for the more advanced concepts discussed in the book's afterword, effectively eliminating any distractions to the flow of the writing.

To cap off, Shephard makes a compelling argument for mapping in 3D making sure to highlight the merits and shortcomings of the methodology. *Mapping with Altitude: Designing 3D Maps* is a thoughtful primer for GIS students as well as a wonderful refresher for more veteran cartographers. I would recommend this book for any academic library with programs that place a particular focus on GIS and data as the skillsets covered in this book can be translated to several disciplines

that include urban planning, environmental studies, health sciences, and history, especially if curriculum integrated.

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