

Bonnett covers some fascinating corners of the world—often through personal narratives. Many of the best locations are in his native Britain, but his narration gives a strong English tilt to even the non-British places. The submerged landscape of Doggerland—in what is now the North Sea—is well imagined, as are the ghostly remnants of Boys Town—a summer holiday camp for Welsh miners’ children. The book’s main interest lies in the episodes themselves, in the meat of description, rather than any analysis or framing. *Beyond the Map* is a highbrow entry in the genre that includes *Atlas Obscura*, *Ripley’s*, and the hordes of other, more pedestrian productions one sees, with titles such as *Mysterious Atlanta*, *Lost Nauru*, *Haunted Cambridgeshire*, and so on (I made up all three of those). It’s a fascinating and entertaining corner of geographic literature, but this example is spoiled by the author’s attempt to dignify it with framing and theory.

What is missing is a convincing depth. Bonnett’s own self-effacing personal reflections, even at their best, lack the poetic interest and evocation of better travel and place writers. He frequently refers to a spiraling apart of an old order, but does little to trace that spiraling, even in chapters on ISIL or the Ferghana Valley—a place where the roots of fragmentation are deep and rich. The Ferghana chapter is annoyingly superficial, as he hardly glances at the early Soviet history of the “-stans”—with their mix of Pan-Turkism, ethnic rivalry, and scheming alliances

with Stalin’s gangster-like organizers—and instead looks only one level deep. Bonnett writes of the effects of ill-defined Soviet border-making on a landscape facing climate change and human crowding, and then leaves it there.

Perhaps most telling is his chapter on underground Jerusalem—another place where controversies about history lie buried layer upon layer, underlying and feeding into intractable modern conflicts. Bonnett’s best stab at evoking all this is to drift into an account of drinking and wandering about while attending a conference there some years ago. Maybe in other hands this anecdote might have revealed something profound or engaging, but here it neither illuminates the deep-rooted conflict nor makes interesting the writer’s personal experience.

Any one of the five sections could, if expanded and fleshed out with some genuinely new and insightful comment, have itself made a deeper and more interesting book. In the end, though, *Beyond the Map* seems more a scattered travelogue or a patched-together collection of blog posts than a focused book. Most of the individual chapters aim at subjects of real interest and many reflect the honest point of view of a geographer who finds himself at a loss to explain or find meaning in his explorations. The problem is, this lack of meaning carries through into the whole itself, and left me with the sense that most of what I took away from the book was mere trivia.

OKLAHOMA WINTER BIRD ATLAS



By Dan L. Reinking

University of Oklahoma Press, 2017

52 pages, 367 maps, 255 color photos, 11 figures, 256 tables; \$39.95 paperback, \$65.00 hardcover.

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Review by: John Cloud, University of Maryland and National Museum of Natural History

The *Oklahoma Winter Bird Atlas* is based on many years of work—conducted from late 2003 through early 2008—by many bird observers, many (or most) associated with the George M. Sutton Avian Research Center in Bartlesville, Oklahoma. It was compiled and written by Dan L.

Reinking, a biologist at the Center, who was also author of the 2004 *Oklahoma Breeding Bird Atlas* (Reinking 2004), or *OBBA*, based on research undertaken between 1997 and 2001. I think the earlier atlas might be the key to evaluating this companion volume and especially its cartography, which is singular in several senses.

As the author notes, most bird atlases focus on the birds’ nesting seasons and places. After completion of the *OBBA* project, staff at the Avian Research Center decided to develop another project focused instead on birds that spend part or all of the winter in Oklahoma, whether they nested there or not. Because migratory birds pass through Oklahoma at all seasons, “winter” was defined for purposes of this project as December 1 to February 14. The focus was on live observation and counting of bird species

by Center staff and volunteer observers during this specific period.

Oklahoma is situated in the center-south of the contiguous United States, and while it might seem small, perching like a bird on top of the much larger Texas, it is actually the twentieth-largest state by area. However challenged Oklahoma might be latitudinally, it makes up for it in its span of longitude. It stretches over an enormous gradient of land sloping down from the front range of the Rocky Mountains eastwards towards the Mississippi River. The land is generally warmer and wetter in the east, cooler and drier in the west. Oklahoma has thick woodlands in the east that thin to buffalo grasslands, then reduce to shrub thickets and grass steppes in the middle, and transition to rugged, juniper-filled canyons in the western Panhandle. I mention all this because there is exactly one basemap—showing the county boundaries of the state—for all 367 maps in the atlas. Each map consists of observational data placed upon the basemap, shown with small colored square or round dots, representing sightings (or the lack thereof) for 250 species of birds during the seventy-six day “winter.”

Bird observations were gathered using three sampling patterns. The primary pattern consisted of 583 blocks of land, each about five kilometers on a side. A map shows the 577 so-called “atlas” blocks that were surveyed, and the six that were “incompleted” [*sic*] and not included (6; Figure 1). These blocks were randomly selected. However, anyone who knows birds or other animals knows that their distributions are almost never random—they frequent the places that are good for them. Random blocks of “land” will not, for example, sample the distributions of waterfowl. Therefore, a second set of “lake” surveys, centered on and around Oklahoma’s abundant reservoirs were also included. Finally, special interest surveys and observations of “birds of opportunity” were solicited to round out the winter birds project data—as were the limited observations from the Audubon Society’s traditional Christmas Bird Counts.

Atlas entries for the 250 bird species are organized by bird orders using the traditional sequence—waterfowl, for example, always come first, and so on—with each bird species getting a double-page spread. The left-hand page names the species and includes a good color photograph of a representative bird, along with basic habitat types preferred, general information about their distributions

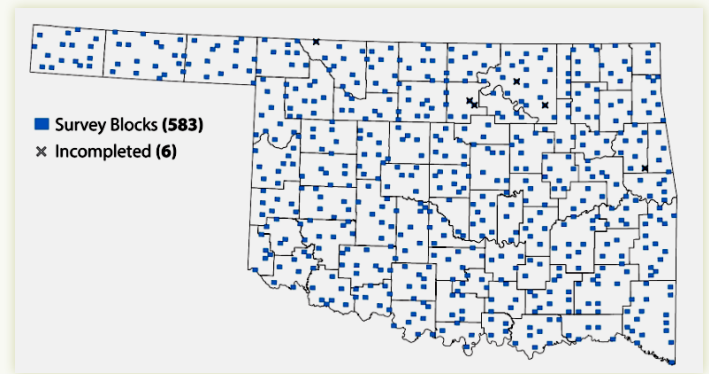


Figure 1. Survey blocks in the atlas.

in North America and in Oklahoma, and short descriptions of their behavior. The right-hand pages are where the cartography gets curious. The Oklahoma basemap is displayed 367 times. The first presentation, on the frontispiece, gives the names of the counties within their boundaries. All the other maps, if they display any data at all, present small squares showing the blocks where that species was observed, and small circles for observations from the lake surveys. In both cases, the squares and dots are color-coded in ranges of numbers of birds observed. An amazing 75 maps present neither dots nor squares—absence of data as data—and generally indicate the bird was observed in one of the special interest surveys. Below the maps there are specific journal references for that bird species, and then, generally, a lot of white space.

The species distribution maps, with their absence of information about landforms, landscape vegetation classes, or any depiction at all of the lakes or drainage, have an oddly abstract quality, somewhat like a Mondrian painting. Their starkness makes me think that perhaps the author assumed the reader would have access to the breeding bird atlas, which might supply what is missing from the winter atlas.

I’m not quite sure what the intended use of the *Oklahoma Winter Bird Atlas* might be. The atlas is a four-and-a-quarter-pound coffee table book, so it is clearly not optimized for use in the field. It is possibly most at home on a coffee table, to be looked through for ideas about where to go in Oklahoma to see birds in the middle of winter—or at least where they were seen in the winters of 2003 through 2008.

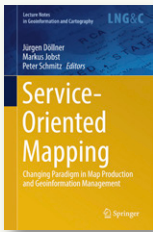
Out in the field, ornithology seems to be shifting profoundly to small digital systems, especially those designed

and released by the legendary Cornell Laboratory of Ornithology. MERLIN assists in bird identifications (allaboutbirds.org/guide/Merlin), and eBird allows birds' locations, numbers, and dates to be uploaded to global databases instantly (ebird.org). eBird can even compile lists of birds “likely” to be found at a specified spot. Perhaps the *Winter Bird Atlas* can be reborn in a smartphone?

REFERENCE

Reinking, Dan L., ed. 2004. *Oklahoma Breeding Bird Atlas*. Norman, OK: University of Oklahoma Press.

SERVICE-ORIENTED MAPPING: CHANGING PARADIGM IN MAP PRODUCTION AND GEOINFORMATION MANAGEMENT



Edited by Jürgen Döllner, Markus Jobst, and Peter Schmitz

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Review by: Amy Rock, Humboldt State University

The term “service-oriented mapping” refers here to mapping applications or map services, both Software-as-a-Service (SaaS) and Data-as-a-Service (DaaS), that in some way automate the delivery of map data to the intermediate or end user. In *Service-Oriented Mapping: Changing Paradigm in Map Production and Geoinformation Management*, the emphasis is largely on DaaS, and how to use it with desktop GIS products or free web-based interfaces. This book presents a generous collection of twenty service-oriented mapping examples from the international (predominantly European and African) community, and provides some insight into how national, multinational, and nongovernmental organizations are creating or leveraging these services to use or generate geographic data.

The chapters are organized into three parts: “Part I: Exploring a New Paradigm in Map Production,” “Part II: Importance and Impact of the New Map Production Paradigm,” and “Part III: Requirements of the New Map Production Paradigm.” Part I leads off with a broad overview of issues related to the transition from paper to digital maps, emphasizing the evolution from long-lived artifacts presenting static, and eventually outdated, information, to more ephemeral electronic products involving interactive and potentially quickly updateable representations in keeping with the dynamic nature of many datasets. According to *Service-Oriented Mapping*, this new paradigm leverages the modern culture of “sharing and reuse” that requires us to think differently about modern map production. Other

articles in this section discuss strategies for managing massive datasets and understanding their infrastructure needs, implementing custom applications, and developing automated processes to support on-demand mapping.

Part II, “Importance and Impact of the New Map Production Paradigm,” provides a series of case studies and historical overviews of the transition to service-oriented mapping. While some of these articles are easily accessible to non-specialist audiences, others are highly technical, and include code samples and processes that are quite discipline-specific. Part III, “Requirements of the New Map Production Paradigm,” is chiefly a discussion of the need for data and access standards to ensure interconnectivity and interoperability between various data systems and sources. It includes a study of how to define the needs of various user types to aid in developing standards—such as for metadata, storage formats, and accessibility—for archival entities.

It is clear the editors intended to present a range of service-oriented mapping applications, but the intended audience for their collection is less clear. The articles range in tone from a highly accessible white-paper style—useful to those planning for the use or provisioning of data or maps—to highly technical pieces clearly targeted at those who might be designing the delivery systems. Some entries focus on data processing and data mining, while others take data acquisition as an unproblematic given, and instead describe public-facing interfaces or resulting impacts on map production. Parts II and III are well curated, with all chapters relating strongly to the theme, but Part I is less organized. Some of the chapters in Part I are clearly related to the theme—an exploration of this “new paradigm”—but others are singular use cases detailing the development of particular map services, some more successful than others. For example, one case study provides considerable detail on the planning and implementation of