

## BOOK REVIEW/ COMPTE RENDU

**Will C. van den Hoonaard, . 2013. *Map Worlds: A History of Women in Cartography*. Waterloo: Wilfrid Laurier University Press. 394 pp. \$32.99 Softcover. (978-1-77112-126-2)**

**M***ap Worlds* provides a social and cultural analysis of the intersections between gender and cartographic practice. By focusing on maps themselves, *Map Worlds* fits within the new materialist turn within the social sciences, rejecting binaries between matter and discourse and attributing agency to things. There is also a focus on the epistemic uniqueness to women-made maps which is a real point of interest for readers (like myself) broadly concerned with gender and technology. The major strength of the book is built on interviews with 25 women occupied in cartography. These data belie closeness between the researcher and his subject. Van den Hoonaard was employed as a mapmaker in 1966 (he is now a retired professor of Sociology).

The book project began from grounded research. As the author explains in the introduction, through time spent with female cartographers, he came to be interested in how the social lives of female cartographers intersect with the institutional dynamics of cartography. *Map Worlds* began as an inquiry into the structural environment of cartographic work as well as the effects of social norms on women and map-making (1). Attention to the structural and normative environment of cartography is a proper area of focus for a sociologist but one that has until now remained understudied.

In its attempt to outline the wider dynamics and structures comprising the world of women cartographers, *Map Worlds* is meant to draw the contours of a kind of figurative map itself, what van den Hoonaard calls the map world. Just as a map represents, the map world is a visualization of a series of relationships that have shifting boundaries—relationships that are not circumscribed by physical relationships, but which entail norms, values, technologies, all with some role to play in the world of map making. In van den Hoonaard's words, "the map world embraces the totality of relationships, norms, practices, and technologies that shape and constitute the world of map makers" (7). The author is particularly interested in how the contours of this map world have circumscribed the lives of female cartographers.

In sketching the map world, van den Hoonaard faces the same difficulties as map-making at large, namely, where to draw the boundaries around the relevant social context of map-making for women? In the words of van den Hoonaard: “there are no margins in this conception of map worlds, ... All kind of relations, practices, and ideas occur on the borderline of the map worlds involving powerful forms of knowledge, struggles, and tensions” (5).

Van den Hoonaard is evidently applying a constructivist theoretical framework in *Map Worlds*, yet he is careful in this theoretical commitment: readers are complicit in an acknowledgement that setting the boundary for cartography inside the book is a part of the wider politics of cartographic knowledge. Said differently, van den Hoonaard acknowledges that *Map Worlds* reluctantly but necessarily assumes a position of agency in the network of women, map-makers, experts, technologies. And these are interrelationships where agency matters, to be sure. You see, despite the fact that the borders which constitute cartography are “shifting and contested” (18) they have been drawn in particular ways throughout history, by particular people in positions of relative power and largely to the disadvantage of women.

*Map Worlds* begins with a literature review detailing the systematic exclusion of women from formal positions of power in map-making. This exclusion has happened, in the author’s words, “alongside the vital contribution of women to geographic information” (5). This book therefore fits itself into a voluminous body of sociological and philosophical scholarship looking at similar diversity freeriding—formal epistemic communities (like male map makers) relying on the unrecognized contributions coming from informal epistemic communities (women map makers) (eg. Fehr 2011; Woodfield 2000; Watts 2007).

*Map Worlds* seeks some redress for the exclusion and exploitation of female cartographers, both by providing detailed visibility on the role of women in the production of cartographic knowledge from the 13<sup>th</sup> C on (29 -168) and by telling the in-depth stories of particular women map-makers (169 - 204). *Map Worlds* gives voice to surveyors and GIS specialists, widowed business owners in the 16<sup>th</sup> C and to WWII “mapping maids”—female army map mappers.

*Map Worlds* illustrates how these women’s lives are bound up with the lives of maps, and the book is therefore a biography of “the map” itself, as it has transformed over time, social and political context and, notably, technological changes. *Map Worlds* can therefore also be fitted within the sociology of science literature that traces the career of material things as they move through different settings and are attributed value (e.g. Takeshita 2011), and the book contributes to science studies

scholarship which emphasizes the co-configuration of technologies and users. To get at the co-production of women and maps, van den Hoonaard asks this research question: *How have the technological shifts in cartography mattered and have they mattered in particular ways to the lives of women in the field?*

It turns out that women have altered the production of cartographic knowledge but not in straightforward ways and not simply because of technological changes (269). Interestingly, technological changes have been politically versatile, adaptable to both feminist and non-feminist politics. For example, the digitization of the collection and representation of spatial knowledge — essentially GIS techniques — have allowed for a diversity of roles for in contemporary map-making (17, 24), these technologies have at once left many women jobless. The overall picture of techno-social relationship given in *Map Worlds* is one where technologies have influenced the wider participation of women to map-making, alongside, as van den Hoonaard puts it, the recognition within cartography that maps are subjective.

Van den Hoonaard makes the claim that theoretical shifts within cartography away from realist approaches has made some wiggle room for the simultaneous recognition of women cartographers because women make maps differently, more subjectively. This is a tricky argument to make without sliding toward essentialism. There is of course a wealth of good research demonstrating that female scientists set different sorts of research questions and may even bring a unique epistemological perspective on the same sets of questions or data (eg. Fox-Keller 1985). *Map Worlds* engages with such empirical research — specifically that coming out of feminist geography and cartography (269 - 284) — which helps to provide nuance to the claim about gendered cartographic practice.

Within the constructivist view, not only do suppositions enter into the map-making process, but maps themselves shape people's perceptions of the world (25). If women make maps differently, then, they at the same time re-draw the boundaries of the map world and this is what the book concludes: women have indeed contributed uniquely. *Map Worlds* shows that women have used clever means of entering into cartography thus re-drawing boundaries. For example, US teachers in the 19<sup>th</sup> C used feminized curricular tools like cross-stitch (of fabric maps) as a subversive way to educate women in geography. Women also pushed the boundaries of cartography thematically, by eschewing the objective gaze of scientific rationality for persuasive, emotional and narrative representations.

Working against a “tendency [among] sociologists to undertake ahistorical work” (10), van den Hoonaard has instead produced a text which

is at times mind-numbing in its detail. Readers with less practice reading historical texts will be thankful for the biographies which are, as van den Hoonaard puts it, “stories of courage, sacrifice, disappointments, resistance an, and, ultimately, the melting of patriarchal attitudes that had stood in the way of the strivings of women. Virtually each vignette is worthy of a movie script” (12).

*St. Thomas University*

Kelly Bronson

## REFERENCES

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**Kelly Bronson** is Assistant Professor and Acting Director, Science and Technology Studies, St. Thomas University. Kelly left lab-bench practice when she found herself more curious about the public face of science. Curiosity about science-society relations and a desire to build sustainable ones still stands at the heart of all her work. She has spent a decade studying public engagements with crop biotechnologies and the politics of knowledge in crop biotechnology disputes. She is presently working on developing locally-relevant public engagement around hydraulic fracturing (“fracking”) policy-making in New Brunswick.

[kbronson@stu.ca](mailto:kbronson@stu.ca)