

Scientia Canadensis

Canadian Journal of the History of Science, Technology and Medicine
Revue canadienne d'histoire des sciences, des techniques et de la médecine

Scientia
Canadensis

Raf De Bont. *Stations in the Field: A History of Place-Based Animal Research, 1870-1930*. 208 pp. Chicago: University of Chicago Press, 2014. \$40.00 USD (paperback). ISBN: 978-0226-1420-67

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Volume 39, Number 1, 2016–2017

URI: <https://id.erudit.org/iderudit/1041387ar>

DOI: <https://doi.org/10.7202/1041387ar>

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Publisher(s)

CSTHA/AHSTC

ISSN

1918-7750 (digital)

[Explore this journal](#)

Cite this review

Hayes, M. (2016). Review of [Raf De Bont. *Stations in the Field: A History of Place-Based Animal Research, 1870-1930*. 208 pp. Chicago: University of Chicago Press, 2014. \$40.00 USD (paperback). ISBN: 978-0226-1420-67]. *Scientia Canadensis*, 39(1), 111–112. <https://doi.org/10.7202/1041387ar>

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Raf De Bont. *Stations in the Field: A History of Place-Based Animal Research, 1870-1930*. 208 pp. Chicago: University of Chicago Press, 2014. \$40.00 USD (paperback). ISBN: 978-0226-1420-67

A recent and exciting development in the history of science is the “spatial” turn, a move to locate the *place* of science. Longstanding is the belief that true science produces *placeless* knowledge, but a number of new studies have shown that the place of science does indeed affect the *what* of science. The location in which science is done can affect the results produced, and the recent work that engages with this idea shows how the locality of science can be slowly erased in order to achieve more universal conclusions. Perhaps the most well-known among these is David Livingstone’s *Putting Science in its Place* (University of Chicago Press, 2003), although this area of research certainly dates back through a longer lineage, notably to *Laboratory Life* (Princeton University Press, 1979) by Bruno Latour and Steve Woolgar. It is within this new volume that Raf De Bont’s *Stations in the Field* is situated, part of a growing monopoly of titles on the subject published by the University of Chicago Press.

The first thing a reader might notice about De Bont’s book is that it is not about America. De Bont is a professor at Maastricht University in the Netherlands, and *Stations in the Field* pulls its material from late 19th century French, German, and Belgian history. This struck me as refreshing, adding a European perspective to more common histories of science in the U.S. and UK. It adds a nice complement to Deborah

Coen’s *The Earthquake Observers* (University of Chicago Press, 2013), which itself draws from European sources, although not exclusively.

De Bont’s book traces a history of biological field stations and what might be called “proto-ecologists”. He focuses on a number of individuals who worked at the formative and somewhat ambiguous intersections of biology, physiology, and zoology. These scientists attempted to construct a conceptual space in which research in the field, as opposed to in the laboratory, provided authoritative data. The focus of these experiments was the interaction between animals and environment, and these proto-ecologists emphasized that what they did was in fact experimentation, and not simply observation. This was an important distinction for any scientist looking to distance himself from the practice of natural history, which was predominantly understood as nothing more than an accumulation, rather than analysis, of observations and materials. In short, these proto-ecologists were attempting, at the turn of the century, to professionalize.

The key to this endeavor was the establishment of biological field stations. These stations were ideally permanent structures set down *in nature*, based on the assumption that nature is best studied from within. De Bont traces the development of field stations as part of a broader “station movement”, which he argues was a counterpart to the “laboratory movement” (11). In a time when the lab was considered to be the pinnacle of epistemic authority, researchers at field stations went against the grain by claiming that they could

in fact produce universal knowledge through their work. More significantly, it was *because* they did research at these field stations, in “real” nature, that their knowledge had a universal quality. The biological field station was a practical site of study, but was more importantly a symbol of professionalizing ambitions. As a result, De Bont argues, the “station movement played a crucial role in transforming biological work in the field” (52), laying the foundation for modern-day ecology.

De Bont’s book is exhaustively researched, and makes a convincing argument for the importance of biological field stations to the early development of ecology and field research. While it firmly and satisfyingly sits within the literature on the spatial turn, it does not significantly extend this theoretical framework. Nevertheless, the book has several key strengths. It clearly demonstrates the blurred boundaries between pure science and education/amusement (e.g. public aquariums used for research), between professional and amateur

science (e.g. gentleman scientists or other enthusiastic amateurs who set up their own field stations), and between public and private funding sources (e.g. university vs. private donors). De Bont also clearly articulates how national politics affected the structure and goals of field research in the late 19th century, notably in the cases of France and Germany. Whereas France saw the establishment of field stations as a means of catching up after their defeat in the Franco-Prussian War and so officially sanctioned them, the German academy tended to be rigidly hierarchical and uninterested in field studies, forcing amateur scientists to turn instead to private sources of funding.

Stations in the Field offers a detailed and comparative case study of the effects of place on the content and way of doing biological science in Europe during the late 19th and early 20th centuries. It is argued well, substantially referenced, and in terms of new theory in the history of science, timely.

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