



© privat

# Kärin Nickelsen, Dr. phil. nat.

Professor for History of Science

Ludwig-Maximilians-Universität München

Born in 1972 in Niebüll, Germany

Diploma in Biology from Georg-August-Universität Göttingen, Dr. phil. nat. in History and Philosophy of Science from the University of Bern

---

## PROJECT

### Histories of Plants and Cultures, ca. 1840–1920

The relationship between history and the life sciences has often been the subject of debate. One of the most recent examples is the rise of archaeogenetics: how data from the analysis of ancient DNA contribute to the reconstruction of the past is controversial and has led to multiple reflections about the aims, subject matter, and methodology of historical vs. biological research. This is interesting in itself, but these debates also have a long history, which has not yet been written, and to which I want to contribute with my project at the Wissenschaftskolleg.

Specifically, I will look at similar controversies between European nineteenth-century scholars, with archaeology, history, and oriental studies on one side, and botany, zoology, and chemistry on the other. One of the particularly contested questions in this context was how the history of culture and civilizations ought to be written. Botanists claimed a special role in this field, as the beginning of human culture presumably was linked to the beginning of agriculture, i.e., the cultivation of crops. Botanists argued that their expertise was indispensable for this history, because only they were able to examine the relevant sources: namely plants or plant remains. My project observes in selected examples how this agenda of a history of cultivated plants unfolded and how the humanities reacted. It thus sheds light on a little-known area of overlap between the so-called “two cultures” that gave rise to lively (and often constructive) debate between natural scientists and humanists about their different methodologies, conventions, and expertise, well beyond the worn-out dichotomy of “understanding” vs. “explaining.”

#### Recommended Reading

Munns, David P. D., and Kärin Nickelsen. *Far beyond the Moon: A History of Life Support Systems in the Space Age*. Pittsburgh, PA: University of Pittsburgh Press, 2021.

Kraemer, Fabian, Kärin Nickelsen, and Dana von Suffrin. “Botany and the Science of History: Nature, Culture, and the Origins of Civilization, circa 1850–1900.” *Isis* 113, no. 1 (2022): 45–62.

Nickelsen, Kärin. “Controlling Nature in the Lab and Beyond: Methodological Predicaments in Nineteenth-Century Botany.” In *Elusive Phenomena, Unwieldy Things: Historical Perspectives on Experimental Control*, edited by Jutta Schickore and William R. Newman, 179–208. Cham: Springer, 2024.

In the second half of the nineteenth century, European scholars and scientists were deeply engaged in finding historical explanations: for the diversity and global distribution patterns, of plants, animals, and people; for the development of humankind in general; and for the rise, spread, and sometimes fall, of human "civilisation" in some parts of the world. The history of cultivated plants became a hot topic in all of these endeavours. It was one of the few areas where human history and natural history seemed inextricably intertwined and could potentially illuminate each other in significant ways. Yet little agreement was reached on how these histories were related, which sources were relevant, and whose expertise was required. The paper traces different approaches, seeks to explain why the issue was considered so important, and explores some of the ensuing controversies.

---

#### PUBLICATIONS FROM THE FELLOW LIBRARY

Nickelsen, Kärin (Dordrecht [u.a.],2022)

Cooperative division of cognitive labour : the social epistemology of photosynthesis research

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1899203281>

Nickelsen, Kärin (Chicago, Ill.,2022)

Botany and the Science of History : nature, culture, and the origins of civilization, circa 1850–1900

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1895733472>

Nickelsen, Kärin (Pittsburgh,2021)

Far beyond the moon : a history of life support systems in the space age

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1741660017>

Intersections

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1741660017>

Nickelsen, Kärin (Dordrecht [u.a.],2015)

Explaining photosynthesis : models of biochemical mechanisms, 1840 - 1960

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=816969051>

History, philosophy and theory of the life sciences ; 8

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=816969051>

Nickelsen, Kärin (Dordrecht,2006)

Draughtsmen, botanists and nature : the construction of eighteenth-century botanical illustrations

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=511993358>

Archimedes ; 15

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=511993358>