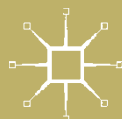


PALGRAVE
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THE PALGRAVE HANDBOOK OF CRITICAL PHYSICAL GEOGRAPHY

Edited by
Rebecca Lave, Christine Biermann, and Stuart N. Lane



The Palgrave Handbook of Critical Physical Geography

Rebecca Lave • Christine Biermann
Stuart N. Lane
Editors

The Palgrave Handbook of Critical Physical Geography

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Preface

One could imagine the origins of Critical Physical Geography (CPG) as a moment of forehead-smacking revelation while staring at an obviously eco-social landscape: the Tijuana Estuary, bifurcated by a particularly formidable segment of the US/Mexico border wall, or an expanse of sugarcane being grown to produce ethanol on former rainforest land in the Brazilian Amazon. But in fact the origins of CPG lie in a windowless conference room in Milwaukee, Wisconsin, where, in 2010, Mona Domosh gave it to Rebecca Lave as a belated birthday present at a conference panel on Geography and Science and Technology Studies (co-organized with Matthew Wilson). During a great discussion among the panelists and audience, someone asked if there were any physical geographers who engaged with science and technology studies (STS). Mona Domosh replied from the audience, “You mean a critical physical geographer?” And then she and several other people pointed at Rebecca. It was one of those rare moments in life when something big happens and you recognize it at the time: instead of being the odd duck (even within the remarkably expansive field of geography) who was trying to cobble together fluvial geomorphology, political ecology, and STS, Rebecca was a *critical physical geographer*. Amazing, the power of a name!

Talking it over after the session, the name was immensely appealing but also a bit provocative. Whilst some loved the implicit call for a more Critical Physical Geography, and a more physical Critical Human Geography, others were concerned that it would appear as either an invitation to critique Physical Geography, or to turn Critical Human Geography positivist. In the end, CPG stuck because despite the potential for misunderstanding, it had the strength of immediately raising questions about the kinds of research, pedagogy, and

political practices needed in order to actually address our profoundly eco-social world.

The next step, for Rebecca, was to build the field, and to encourage others to begin the kind of integrative research that would fall under the CPG umbrella. Following in the footsteps of generations of scholars who have made important contributions to integrative thinking (including Doreen Massey, Bruce Rhoads, Keith Richards, Louise Bracken, Elizabeth Oughton, and many others), Rebecca wrote a call for papers that spanned Physical and Critical Human Geography. This was revelatory, as in starting to write what was meant to be a clarion call to integrated research, a large number of people seemed to be *already* doing work that Rebecca recognized as CPG. As the list of “but see” citations grew from an initial handful to more than twenty, it finally dawned on her that what was needed was not the construction of CPG from scratch, but the introduction all the various people who were already doing such research to each other, and then the announcement of the field as already arrived. A series of conference sessions, journal articles, special issues, and workshops followed, bringing visibility to an already existing and rapidly growing body of work that combines, in our collective initial definition, critical attention to relations of social power with deep knowledge of biophysical science in the service of social and environmental transformation. This Handbook was initiated through Rebecca’s commitment to grow the field.

One of those people already attempting to do CPG research was Christine Biermann, who was at the time a graduate student struggling to build a framework within which to combine training in biogeography and dendrochronology with an interest in the politics of science and knowledge production. Christine joined the CPG intellectual project at the 2012 Association of American Geographers conference, where a series of panels ultimately culminated in a team-authored paper reviewing existing CPG work and arguing for its practical and intellectual relevance (Lave et al., 2014). In CPG she found that it might indeed be possible to reconcile a critique of the quest for universal Truth with the practice of natural science, but the nuts and bolts of how to most effectively *do* this type of work continued to elude her. When approached by Rebecca about working together on this CPG Handbook, she accepted, hoping that it would provide an opportunity to think through her lingering questions.

It was to a CPG workshop linked to the 2015 AAG that Rebecca invited Stuart Lane to speak. Bemused by both the notion that Physical Geography needed to be more critical (when critique is the hallmark for him of being a scientist) and that someone thought that he might have something to say about CPG, he accepted the invitation. Uninspired by some of the many

attempts to “cross the divide” that have circulated over the last couple of decades, he was intrigued to find in CPG a wealth of creative scholarship founded upon both; the material interest that follows from a scientific interest in “things”; and a commitment to explanation of those things that was not constrained by their material nature, and the scientific method that typically follows. Struggling to understand the relationship between CPG and his own scientific journey, and faced with a much more fissiparous tendency for Geography in Europe, he took the bait, and agreed to support Rebecca in the production of this Handbook.

In writing this handbook, we three have come together to produce a volume that we hope introduces CPG: its epistemology, methodologies, genealogy, and core tenets. Perhaps because we are closet empiricists (defined in the broadest sense), the core of the collection is a set of papers where we seek to demonstrate the explanatory power of CPG research through examples from across the spectrum of subjects that might typically be treated by physical geographers or human geographers in isolation. However, we also bracket these papers with the first full attempt to develop some basic tenets of CPG, ones that distinguish it from other attempts to cross the divide as well as from other sub-disciplines like political ecology.

We hope that whatever your field of environmental study, you will find chapters here that cause you to re-examine your research questions, field methods, pedagogy, and political practice, as well as the deep inter-relations among them.

We would like to thank those who have helped with the publication of the Handbook, the reviewers of each chapter, our universities for supporting workshops in financial and other ways and Palgrave Macmillan for committing to and supporting this project, particularly our editor, Rachel Ballard.

Bloomington, IN
Seattle, WA
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September 2017

Rebecca Lave
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Fig. 9.2

(left) On the macro-scale, settlements are shown as small dots; their patterning and their relation to environmental features can be investigated, but the potential internal processes that lead to their patterning cannot be investigated or proved. (centre) On the meso-scale, details of the settlement plan and its utilization of specific environmental features get obvious and can be analysed; the availability of data is greatly increased, what necessitates a first selection of potentially important features. (right) On the micro-scale, the natural dynamics can be reconstructed in detail, and specific contexts of artefact distribution and usage are open for detailed investigations based on, for example, excavations. The resolution is so high, that larger objects, for example, floodplain terraces or features of settlement plans, cannot be recognized anymore and the conclusions drawn only on this scale are prone to miss important aspects from the meso- and macro-scales

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