

THOMAS S. MULLANEY, *Coming to Terms with the Nation: Ethnic Classification in Modern China*. Berkeley, Los Angeles and London: University of California Press, 2010. Pp. xiv + 232. ISBN 978-0-520-26278-2. £41.95 (hardback).
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Thomas Mullaney's *Coming to Terms with the Nation* uncovers, arguably for the first time in the English-speaking scholarly circle, the historical process whereby the People's Republic of China comes to classify (and so officially recognize) its citizens with the now ubiquitous fifty-six *minzu* ('nationality' or 'ethnicity') model – fifty-five minorities plus the Han majority. The cornerstone of this history, Mullaney argues, is China's 'Ethnic Classification Project', which refers to 'a series of Communist-era expeditions wherein ethnologists and linguists set out to determine once and for all the precise ethnonational composition of the country, so that these groups might be integrated into a centralized, territorially stable polity' (p. 3). In fact, the book's coverage is more circumscribed, as it singles out the Yunnan Province Ethnic Classification Project, which took place over the course of only six months in 1954, as the most important episode in modern China's ethnonational puzzle. Tracing the Classification Project's intellectual genealogy to developments in the ethnological social sciences in the late Qing and Republican periods, the book concludes, rather hastily, with various sociocultural projects that inscribe, elaborate and solidify the fifty-six *minzu* paradigm in the post-Classification era.

Above all, the author should be lauded for excavating, utilizing and scrutinizing previously untapped sources in revisiting China's classification history. These include the actual text of the 1953–1954 census registers, recently declassified documents from the 1954 Yunnan Province Ethnic Classification Project, Republican-era scholarly publications in ethnology, the unpublished journals of Henry Rodolph Davies (the turn-of-the-century British military officer whose language-based ethnic taxonomy exerted an overwhelming influence on ethnological research decades after the fall of the Qing), and oral history interviews with selected members of the 1954 Ethnic Classification Project. These materials help shed new light not only on the 1954 Ethnic Classification Project itself, but also, as Mullaney claims, on the broader trajectory of state-sponsored categorical compression from four hundred potential *minzu* identities to under sixty.

The book is perhaps best read as a path-breaking contribution to modern Chinese history more than to any other field. Although the foreword by Benedict Anderson gestures towards the comparative scope of this study, especially when its place is considered alongside investigations of identity politics, governmentality and (inter)nationalism beyond the East Asian context, the book's theoretical implications remain quite limited in light of the empirical data and approach on which it is based. To be sure, the author references authoritative texts in the history and philosophy of science sporadically, but this body of secondary literature appears more as mere nominal referents throughout the book than as deeply embedded tools of thick analysis. One longs for more sustained discussions of how this study engages with key debates in historical epistemology, or at least historical ontology, as this might be a more fitting framework for the exploration of the Classification Project. Nonetheless, the way that major historical philosophers of science, such as Lorraine Daston, Mary Douglas, Paul Feyerabend, Bruno Latour and Ian Hacking, are invoked in the book renders its contribution to the field of the history of science all the more opaque.

For instance, the extension of Thomas Kuhn's insights concerning the recurring patterns in the historical development of the physical sciences to other scientific fields, such as the life and social sciences, has long been a subject of great controversy among historians and philosophers of science. But when Mullaney states that Chinese researchers 'envisioned . . . Chinese ethnology as a "normal science" in the Kuhnian sense, and China itself as a "normal state"' (p. 108), he already takes for granted the applicability of Kuhn's analytical vocabulary to the social sciences, a move that Kuhn himself explicitly disavows. Moreover, Mullaney fails to explain what he means by a

'normal state', a concept that is neither familiar to scholars of nationalism nor self-evident for historians of China.

To identify yet another, more problematic, example, despite his careful borrowing of Karin Knorr Cetina's work on actual scientific laboratories, Mullaney, following the ethnologists whom he studies, describes Yunnan as a 'cultural laboratory' in wartime-era ethnology (p. 62). However, he never hits the main feature of modern laboratory science that distinguishes it from earlier modes of scientific practice (cf. natural history before molecular biology), namely experimental culture. Yunnan may have provided Chinese ethnologists with a wealth of *minzu* 'specimens', but were the researchers able to manipulate independent variables of sorts for the purpose of deductive reasoning? Ultimately, by relying on the *metaphor* of the laboratory, what results from this apocryphal epistemological application is the very confounding of laboratory with nature. And the problem with the following sentence speaks for itself: 'Indeed, if Yunnan had become the laboratory of Chinese ethnology, the Davies Model [of ethnic taxonomy] had become its periodic table of elements' (p. 63). Mullaney could have benefited from pitching his history of Chinese ethnic classification more as attempts to decentre familiar frames of science, rather than the other way around.

These reservations notwithstanding, *Coming to Terms with the Nation* is an exemplary piece of scholarship for tackling broad historiographical questions with a manageable and concrete set of new data. Before this book, historians either have taken for granted the fifty-six *minzu* paradigm or have not considered in detail its historical 'becoming' (here comes historical ontology). After this book, we can no longer avoid thinking closely about the relevance of non-Western epistemic formations for issues that have long preoccupied historians and other scholars of science.

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MICHAEL SEAN MAHONEY, *Histories of Computing*. Cambridge, MA and London: Harvard University Press, 2011. Pp. x+250. ISBN 978-0-674-05568-1. £36.95 (hardback).
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This book documents a strand in Michael Mahoney's career which represents, to employ one of his own images, the coming together of long-established agendas in the history of science and mathematics with the new technology of the computer. Trained as a historian of early modern science and mathematics, Mahoney, who died in 2008, turned his attention in the 1980s to the computer, and his writings have since been highly influential in shaping the emerging discipline of the history of computing. This volume, edited by Thomas Haigh, collects the most important of his essays, talks and articles on this subject and includes a useful and insightful introduction by Haigh as well as an appreciation of Mahoney's life and work by two of his former colleagues.

Noting that the computer, one of the scientific and technological developments that define the twentieth century, was all but invisible in the literature of the history of science and technology (a situation that has not changed much in the intervening years), Mahoney's earliest forays dealt with the questions of what the history of computing could be, and how it could best be written. He argued for a move away from the prevailing interest in the invention of the computer and towards a concern with the technology in use, addressing in particular communities of users and the artefacts that embody that use, namely software. In doing this, he was situating the history of computing in the wider context of the history of technology, reflecting the themes and concerns of this parent discipline in their application to the computer. Mahoney then took his argument a step further, observing that the universal nature of the computer makes the notion of a single activity of 'computing' problematic, and arguing instead for the writing of parallel histories of the many fields affected by automated computation. As Haigh notes in his introduction, however, Mahoney did not always follow his own methodological precepts, and at several points a tension can be detected