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Topografien der Nation: Politik, kartografische Ordnung, und Landschaft im 19. Jahrhundert.

By David Gugerli and Daniel Speich. Zurich: Chronos, 2002. Pp. 264. €29.90.

Many disciplines increasingly challenge the notion that "space" and "territory," as they are manifest in modern states, are stable, quasi-natural orders. Instead, they claim that space and territory should be understood as evolving categories influenced by a variety of social, political, and cultural processes. A problem nevertheless remains: namely, the lack of historical knowledge and theoretical insight into the making and stabilizing of spatial categories such as "nation" or "region," not to mention the crucial role played during the nineteenth century by surveyors, geodesists, cartographers, and instrument makers.

It appears that a gradually institutionalized will to rationalize space, to transform it into defined territories, areas, and districts, progressively gave rise to a wide range of scientific and technological practices. Earth scientists, engineers, and instrument makers not only provided systematic knowledge and know-how for "big actors" like the military or the nation-state but also supplied the basis for the fundamental structuring principles of the modern capitalist world, such as private property. Moreover, spaces, territories, and landscapes as presented by scientists or engineers—using visualization technologies and distributed through a growing number of media channels—deeply shaped individual and collective perceptions. They created culturally and politically coded images and thereby influenced ideologies and strategies in state bureaucracies, the economy, and society at large.

As the historian G. Malcolm Lewis recently put it: "The map is a metaphor of the real world and is often the model that shapes it." During the nineteenth century, various practices involved in the process of surveying and mapmaking converged toward institutional centers of gravity represented by agencies of the nation-states that began to collect, refine, and actualize space-oriented, "official" data and knowledge. This evolution can obviously be correlated with the nation-building process as understood by constructivists such as Benedict Anderson. Next to the census and museum phenomena, he has ascribed a crucial role to maps in the consolidation of what he calls "imaged communities" within politically defined borders. Recent studies in the history of cartography, especially those influenced by

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the groundbreaking work of J. B. Harley, often examine these combinations of technological expertise and political power in mapmaking.

The impressive *Topografien der Nation*, by the Zurich-based historians David Gugerli and Daniel Speich, offers an analysis of a big nineteenth-century cartography project and thereby provides insights into the emergence of what might be called a modern configuration of knowledge, space, and power. The artifact in which this new configuration finally became encoded was a new national map of Switzerland, the popular influence of which grew rapidly. Gugerli and Speich introduce us to the complex social, political, and technological history of the surveying and cartographic effort that finally led to the "Dufour map," named for the engineer-general leading the project.

The Swiss case highlights a striking parallel: the story of the map as it interacts with the gradual emergence of a Swiss federal government, and a bureaucracy that had to overcome strong federalist traditions. Gugerli and Speich can thus analyze the changes in the conception and representation of space and landscape that the project triggered. By the end of the century—so they convincingly argue—map, nation-state, and collective perception frequently merged.

Gugerli and Speich unfold a detailed but highly readable narrative based on a theoretical framework that refers to the Foucauldian concept of knowledge production as a discursive manifestation of power. Of special interest for readers of this journal are the chapters on the problems arising with measurements in the Swiss mountains. On the one hand, they enlighten the reader about the self-conceptions of the actors as "conquerors," by technical means, of the wild and indomitable Alps. On the other, they offer a sociopolitical microhistory of precision. This history is understood here as a complex and communicative process of authority production, the function of which was to stabilize not just the overall project and the professions involved but also, in this particular case, the process of nation building itself.

Topografien der Nation opens up "the black box of the baseline" with a dense description of the fundamental measurements conducted in the "Bernese Seeland" region. This demonstrates that precision is the product of mutual references, of repeated measurements, and of authoritative external judgements. The outcome in turn was functional in overcoming traditional, social, and other contingencies by implementing a new national, top-down order. Technology and power—the state—thus obviously became important resources for each other, and cartography developed into a crucial tool within a new "rationality of governance." Even if this argument has often been made in recent histories of rationality and objectivity, it has seldom been as convincingly illustrated as in this genealogy of spatial knowledge production and representation. The reader may regret the absence of comparisons to other regions and nations and their expert/state

configurations. Nevertheless, future case studies should find important ideas and results in Gugerli and Speich's *Topografien der Nation*, and we can only hope that it will soon be accessible—perhaps with more illustrations than it currently includes—to an English-speaking audience.

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