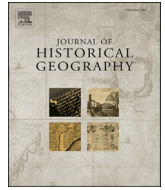




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Review

The Red Atlas: How the Soviet Union Secretly Mapped the World, John Davies and Alexander J. Kent. University of Chicago Press, Chicago (2017). 272 pages, US\$35 hardcover.

When states undertake large-scale enterprises to explore or understand the world beyond their borders, whether the mapmaking of Portugal's Henry the Navigator in the fifteenth century or NASA's exploration of space half a millennium later, such projects reveal almost as much about the governments and societies that embark on such missions as they do about the subject being studied. In this informative, fascinating, and beautifully illustrated book, John Davies and Alexander J. Kent provide a glimpse of a massive, top-secret Soviet effort to map the world, including the USSR itself, launched on Stalin's orders following the Second World War and continuing until the fall of the Soviet Union in 1991. This task was 'the most comprehensive global topographic mapping project ever undertaken' (p. 11). By the authors' estimate, it yielded more than one million maps, including highly detailed plans drawn at various scales of 120 American and 100 British cities. Although Davies and Kent focus on the maps themselves, the details they unearth suggest that this enormous project was emblematic of the virtues, drawbacks, and idiosyncrasies of Soviet scholarly-scientific projects in general.

Soviet authorities always treated map making as a national-security matter, and official Soviet cartographers notoriously introduced random deliberate errors into all maps sold to foreigners or produced for Soviet civilian use. Whereas this may well have rendered them unreliable for the invaders who never came, the chief losers were Soviet planners, engineers, and ordinary citizens who lacked trustworthy maps of their own country. By contrast, this massive, secret project produced what the authors judge to be 'astonishingly accurate and comprehensive' (p. 48) maps, but their use was reserved for a small coterie of officials holding high security clearance, particularly the military. The final products remain classified even in post-Soviet Russia, where at least two Russian citizens have been imprisoned for selling maps to Western collectors. The authors therefore must rely not only on the handful of maps that have emerged from Russia itself, but principally on a large but incomplete trove left behind in the Baltic States following the collapse of the USSR.

Davies and Kent, who describe themselves as 'British map enthusiasts', are not scholars of Russian or Soviet history and politics, and they have not unearthed any documentation disclosing the Soviet authorities' motives for such a costly project; nor were they able to interview or read the accounts of Soviet cartographers, who 'remain silent' (p. 1). They largely eschew speculation, 'leaving [ing] it to others to offer theories about the purpose of this vast enterprise' (p. 2). Instead, they scrutinize the maps: deducing their sources, the methods the cartographers used, and the strengths

and shortcomings of the resultant maps.

Working without benefit of Soviet archives, Davies and Kent nonetheless are able through their own painstaking and ingenious sleuthing to identify many of the Soviet mapmakers' sources, most of which were initially of foreign origin. In the early postwar days, mapping teams drew on captured German charts, including those prepared for Hitler's abortive 1940 invasion of Britain. To portray the United States and the United Kingdom, they mined the detailed US Geological Survey and British Ordnance Survey maps. So extensive was their copying from the latter source, that when some of these Soviet charts became available in the 1990s, the Ordnance Survey considered suing the Russian government for infringement of Crown Copyright. Images from the Soviets' own aerial and satellite reconnaissance eventually supplemented these foreign sources.

Information included in the maps reflected the military-strategic priorities of their consumers: industrial plants featured prominently, as did communications, especially railroads. Military installations were often pictured in more detail than in comparable Western maps, but some sites not visible from probing satellites were missed entirely. Where possible, the cartographers recorded the weight-bearing capacity of railroads, roads, and bridges, with the clearance height of the latter noted, as well as the depth of rivers, their flow rate, and the soil composition of riverbeds. Forested areas were delineated, and the average distance between trees was measured where possible, presumably in order to determine whether they presented an obstacle to military vehicles. Place names were transliterated into the Cyrillic alphabet, not according to original spelling, but rather phonetically, reflecting local pronunciation: thus the English town of Wymondham was rendered as 'Windem' (p. 81). The authors are justly impressed with such attention to detail, which reflected 'an impressive amount of research and geographic knowledge' (p. 83).

Not that Soviet cartographers were infallible. Sometimes they made amusing errors and odd omissions: for instance, they inexplicably identified 'Her Majesty's Theater' near London's Trafalgar Square as the 'residence of the Queen and Prime Minister' (p. 87). A check of cities with which I am familiar also reveals that, for whatever reason, the mappers chose not to identify hospitals, even major ones.

Not all the details contained in these maps could have been gleaned from open Western sources or aerial photographs, and the authors suggest numerous cases where information must have come from agents or informants on the ground, or from other covert means. For instance, water-depth figures for Western harbors often differed significantly from those provided on Western maps, and Davies and Kent cite a number of occasions where Soviet civilian or maritime research ships might have taken covert soundings. Although they believe that espionage 'played a relatively minor role in the mapping of Western countries', (p. 76) they

deduce from the density and nature of information in the maps that Moscow had more personnel operating in the United States than in Britain (p. 129). They also show how Soviet espionage used Sweden as a veritable punching dummy, where agents could practice clandestine operations in a foreign country without fear of major consequences if exposed, just as Soviet submarines used Swedish territorial waters as a live-fire practice field.

Davies and Kent conclude: 'The question of whether [these maps] were "invasion plans" to facilitate hostile aggression or simply peaceful preparations for the inevitable day when the entire world is communist will, no doubt, be hotly debated for years to come. Either way, they offer unsurpassed inventories of topographic information' (p. 143). This mammoth cartographical project bore many defining characteristics of other major Soviet military-industrial-scientific initiatives: the science and painstaking effort were impressive, as was the precision, thoroughness, and even artistry of the work; the task was labor-intensive and the technology lagged behind Western equipment; the goal of mapping the entire world was grandiose; the maps are accurate, and those that have been preserved are still useful to geologists,

communications workers, and even to Allied forces fighting in Afghanistan.

Yet for all the cost and effort, the secrecy-obsessed communist authorities denied ordinary Soviet citizens use of the maps, so their own people and economy never benefitted from their creation. We still don't know the original purpose of the enterprise, whether it ever had a clear goal, whether that goal changed over time, or whether, like so many Soviet projects, inertia kept it going long after everyone involved had forgotten its original intent. We do not even know precisely how many maps were created. Soviet officers retreating from Latvia as the USSR disintegrated ordered a collection of more than 6,000 tons of maps destroyed; a local enthusiast rescued 100 tons, only to have vandals burn all but two tons. The rest of these striking works of science and art were consigned to the ash heap of history, much like the vanished empire that created them.

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