

OTHER

In the Memory of the Map: A Cartographic Memoir

By C. Norment. 2012. University of Iowa Press, 119 W. Park Road, 100 Kuhl House, Iowa City Iowa 52242-1000 USA. 253 pages. 22.50 USD. Paper.

Anyone who does fieldwork uses maps for many purposes, including wayfinding, locating and recording sample sites, and archiving spatial data. Folded, crumpled, water-stained, and scribbled-on, maps are an eloquent statement from the field. They are one of the basic tools of the trade. But what do maps actually mean and how do they relate to our life experience? These are the questions that biologist and ecologist Christopher Norment explores in this fascinating and thought-provoking book. His examination takes the form of a memoir, focussing on major life-phases, beginning with his childhood in California, moving through his restless and rootless young adulthood, then to later life as a wilderness instructor, field ecologist, academic, parent, and avid back-country trekker. At each stage a specific map triggers recollection and contemplation.

Maps are an abstraction; they don't show everything. Maps are selective in what they present, as are memories. Just as with recollections of the past, some things are excluded, deliberately edited out or omitted from maps. Both are fallible. For Norment, maps are containers of memory, in a way that is different from a narrative or a photograph. His ten reflective essays examine different types of maps – sketch maps, topographic maps, road maps, and maps created from field data. Maps display relationships and linkages. Just as we move inexorably through time, so we also travel through place and space. Norment is “aiming for ... an examination of the role of maps in [his] life, and by extension, in the lives of others” (page 2). His purpose is “to draw readers more fully into their aesthetics, mystery, function, power, shortcomings, and into consideration of the role that maps play in their lives” (page 3). For the fulfilment of these objectives, perhaps the most telling chapters of his narrative are the first and last, dealing with his childhood experiences and a journey without maps.

In the opening chapter, Norment remembers Saratoga, California, which he left when he was 10 years old, after living there for about two formative years. He draws from memory a map of his boyhood home. He also asks his sister, who is four years younger, to do the same. Then he compares the sketches. This small example powerfully demonstrates the capacity of memory to edit. His map is filled with boundaries – roads, rail lines, fences, a bridge, irrigation ditches, a stream channel – and places where he had adventures and played with his friends. Hers is filled with landmarks and natural features, especially specific plants and trees near their house. The nearby fills the view; the more distant Santa Cruz Mountains, which must have dominated the

skyline, don't impinge on either map. Some things are common to both sketches: the family home at the centre of the terrain and the driveway leading out to the road and the world beyond. What astounds him is that his sister marked a water tower across the highway from their front gate that he remembered but omitted and a barn on the acreage that he doesn't remember at all. Perhaps this shouldn't surprise us. It's well known, for comparison, that eyewitness accounts of recent incidents differ.

Norment has taken us here into the terrain of mental maps, the way in which people organize and remember space, and the way in which children develop a sense of the world around them. Later, he watches his own children develop spatial awareness as they grow up in Lawrence, Kansas, and Brockport, New York. For Norment and his sister, their memories built on their childhood experiences in which they spent much time outdoors, in close touch with nature, even if it was the rather groomed nature of orchards, fence lines, and irrigation ditches. Different experiences by different siblings produce different pictures. He realizes that their experience of the terrain has stayed with them through almost five decades, forming “the contours and coordinates of our childhoods, engraved in memory, and binding us to this earth” (page 18). These experiences were actual, not virtual – real mud, real trees, and real injury when he fell off a bridge across a stream. His narrative emphasizes the importance of genuine contact with nature. Although he doesn't mention this term, Norment's analysis suggests that such real-world exploration may provide one counteraction to the newly identified condition of “nature deficit disorder”.

Hiking, purposeful travel across the land, is a pervasive theme in Norment's life. Some journeys are straightforward, such as a traverse through geological time he takes with his daughter as they hike out of the Grand Canyon or a road-trip across the northern states with his son. Learning to wayfind by reading a map is a complex skill that many people with no experience of the outdoors have to be taught. He watches participants in Outward Bound courses gain confidence as they match a two-dimensional representation to the three-dimensional landscape around them. To bookend his narrative, Norment goes on a 13-day backpacking trip with a friend into the Pasayten Wilderness of northern Montana, deliberately hiking with no map or finding aids. This was an intentional challenge. He wanted to discover how maps had both facilitated and constrained his previous journeys. Their travels were not purposeful; they didn't have a specific objective, other than to make their way back to their starting point

at the end of their trip. When they returned, they re-traced their route on the map so that the account is laced with the names of the places – peaks and streams – that for the most part they didn't know at the time. This chapter raises interesting questions about route finding through unknown terrain, that relate back to narratives of exploration and travel. Very little terrain is truly unknown. The traveller undertaking exploration is usually moving through places that are well known to other people if not to him.

Maps are simplifications, and can be made for a specific purpose or project. Norment describes one such set of maps, derived from his study of range territories defined by movements of feral burros in the Panamint Mountains of the Death Valley region. The movements of individual tracked animals defined territories and a seasonal pattern related to water and forage availability. Norment's other essays are almost all presented as journeys, narrowly linear travels between destinations. Only here does he approach contemplation of another major purpose of maps, and that is to delineate area. Consider, for example, the range maps found in field guides to wildlife or plants, such as winter and summer ranges of different bird species. These are constructed from many records, built up over many years and are subject to change as new evidence comes in. In fact, such maps have an inherent fluidity, because ranges may shift over time. Perhaps it is no coincidence that much of Norment's work in field ecology focuses on birds, including community surveys along the Verde River in Arizona, pipits in the Snowy Mountains of Australia, Harris's sparrows in the Canadian arctic, and waterfowl in western Alaska. Maps, after all, give a bird's-eye view of the land.

Printed maps have edges. Everyone who has done fieldwork is familiar with that frustration when the place you want to visit is on the boundary between two, or worse four, map sheets. This problem is diminishing as map data become available in digital format. Norment's map journeys aren't perturbed by edges; his memories narrated here are held and contained by map sheets. But he recognizes that the area beyond the map sheet has meaning too. It is either *terra incognita*, filled with enticing landscapes waiting to be explored and "fiercely imagined places" (page 22), or a *tabula rasa*, a blank space waiting to be occupied, to be filled in and to have meaning assigned. His travels are mostly by foot or by vehicle; the former giving a more intimate view, the latter revealing large scale connections. Most of his walks are in mountains or uplands, places that obviously appeal to him as centres of freedom and adventure. For Norment, maps are also a means of escape. In his teenage years, they were a way of fleeing abuse, getting away from a place of pain, even if only for a short time. As a mature adult, maps provide a way of temporarily laying down day-to-day responsibilities to focus on more basic issues of navigation, locational awareness, and survival.

Norment is a graceful and engaging writer and his book is a great pleasure to read. It is unquestionably the product of deep thought and considerable scholarship. Maps are so commonplace that, I suspect, most users take them for granted. Norment's well-written and articulate examination of maps and their place in his life, has ensured that I will never look at a map sheet quite the same way again.

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