Way-Marking and Map-Making Across Land and Water

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Mobility is aided by way-marking and map-making, both activities that express place-based cultural knowledge and socialise the landscape. When Basque, French and British people arrived on the Atlantic coast of Canada, they encountered a landscape of long-established routes linking places by sea, rivers and land. Indigenous peoples had created and used these networks to suit their needs in moving across the forested landscape and navigating the many rivers and marshes. These routes were adapted to allow connections across water and land in spring, summer and autumn, and across snow-covered land and ice in winter. Much of the evidence for Indigenous peoples' way-marking and map-making practices comes to us by way of European or other early colonial interpretations made in intercultural contexts. These descriptions and explanations may not reflect the meanings that the original makers and users intended (Lewis 2006). But by using ethnographic and historical accounts with care, and by assembling different types of knowledge from oral histories and traditional knowledge, artefacts and other durable markers such as petroglyphs, we can explore the evidence for the ways people moved across the landscape, marked their routes and depicted their socio-spatial networks.

The work of early observers and ethnographers sheds light on connections to place and knowledge of landscape, as expressed here through the networks of trails by which people navigated in eastern Canada. In the late nineteenth century, naturalist and archaeologist William Francis Ganong compiled a regional document of historic and cartographic records of 'portage' paths in New Brunswick, Canada (Ganong 1899). Portage paths are the terrestrial paths used for carrying watercraft (usually canoes) and material items around obstacles in rivers, or in order to get from one waterway to another. New Brunswick is located on the Atlantic coast and boasts an extensive network of waterways, meaning that travel by watercraft in the forested interior is a practical option.

Many of the terrestrial paths linking riverine routes were created and used by the First Nations peoples living in New Brunswick long before Ganong created his compendium of portage paths. Three First Nations have traditional territories in New Brunswick: the Mi'kmaq, Wolastoqiyik (Maliseet) and Peskotomuhkatiyik (Passamaquoddy). Each have distinct territories but are also part of the extensive Wabanaki Confederacy, which includes the Native American Penobscot and Abenaki nations. The lands of this confederacy extend across modern political boundaries, including the Canadian Maritime provinces of New Brunswick, Nova Scotia and Prince Edward Island, as well as parts of Quebec, and parts of the American states of Maine, New Hampshire, Vermont and Massachusetts. This region is named *Wabanakik*, meaning the 'Dawnland' or 'people of the dawn', in reference to this eastern landscape.

Ganong recorded accounts of portage paths from several sources, including sixteenth to nineteenth century British, French and Canadian maps, by examining place names and by interviewing residents. Ganong's observations of portage routes were made after a period of significant cultural and environmental change, following several hundred years of European colonial settler influence. However, some of the routes in New Brunswick had evidently been used for a very long time and continued to be used through the early European-contact period (Deal 2002: 321). Abraham Gesner, who conducted geological surveys of New Brunswick in the 1840s, remarked on the long-term use of these trails which were 'well beaten by the Indians, who passed this way to their hunting grounds, long before the country was visited by Europeans' (Gesner 1842: 33); 'these ancient trails are narrow paths winding among the trees and along the sides of hills; and so long have they been travelled, that the solid rocks are now furrowed' (Gesner 1847: 89). More recent research into local placenames also highlights the longevity of these paths. A particular portage route connecting the Saint John River with rivers to the southwest is known as Metaksonekiyak in the language of the Peskotomuhkatiyik and Maliseet, meaning '[the place where] shoes wear it down' (Moran 2020: 4).

Gesner also noted the seasonal visibility of some trails, one of which 'had become obscured by the growth of grass during the summer' (Gesner 1842: 38). When a path was difficult to make out, Gesner recounts that way-markers were found to assist the traveller:

> On the clean wood of a large cedar, there was rudely marked, in a peculiar black and durable ink, an Indian carrying a canoe; and the direction of the figures were exactly those of the portage: so that, the old winter paths of the lumbermen were readily avoided. (Gesner 1842: 38)

The value of these trails and portages was widely recognised and the routes were subsequently also used by the early explorers, settlers, *voyageurs* involved in the fur trade, and timber industry workers. Gesner's account is interesting as it signals practical and social divisions between the roads used by the 'lumbermen' who worked in the timber industry, and the routes used by those who travelled the portages. Through his texts and the cedarwood images he writes about, we can envisage multiple networks of movement across the landscape. When mapped, the riverine routes and associated portages appear as a network offering unimpeded movement, but consideration of the seasonality of the river system and the social boundaries of the landscape moderate this perception.

The Wabenaki tradition of *awikhiganak*, birchbark letters or maps (*wikhe'gan* in the language of the Peskotomuhkatiyik; Mallery 1893: 331), sometimes produced as notices of departure and direction along these routes, provide insight into the ways that people navigated the network of terrestrial and riverine routes. *Awikheganak* document cultural landscapes of places, routes of travel and networks of relations. This technique of map-making and way-marking was well-established and widely used. An account by John J. Henry, part of Benedict Arnold's 1775 expedition against the British garrison at Quebec (Lewis 1998: 84), describes a birchbark map used as way-marker on the Dead River in Maine:

> We came to a stream flowing from the west, or rather the northwest. As we were going along in uncertainty, partly inclined to take the westerly stream, one of the party fortunately saw a strong stake which had been driven down at the edge of the water, with a piece of neatly folded birch bark, inserted into a split at the top. The bark, as it was placed, pointed up the westerly stream, which, at its mouth, seemed to contain more water than our true course. Our surprise and attention was much heightened, when opening the bark, we perceived a very perfect delineation of the streams above us, with several marks which must have denoted the hunting camps, or real abodes of the mapmaker. There were some lines, in a direction from the head of one branch to that of another, which we took to be the course of the paths that the Indians intended to take that season. This map we attributed to Natanis, or to his brother, Sabatis, who, as we afterwards knew, lived about seven miles up this westerly stream … Inspecting the map thus acquired, we pursued our journey fearlessly. (John J. Henry, reprinted in Roberts 1938: 314–315)

Though the interpretation of this *wikhe'gan* is not offered to us by the maker, we certainly get the sense of a clear, geographic representation and the communication of places and routes of travel. Mobility, temporality and networks of relations are also implied by the 'hunting camps' or 'real abodes', and the directional lines that Henry interprets as routes of travel: 'paths that the Indians intended to take that season'. Ethnographic accounts offer some examples in which makers of *wikhe'gan* share the meaning of their depictions, reinforcing the interpretation of these objects as representing place-based, social landscapes and incorporating activity and mobility. Ethnographer Garrick Mallery (1893) published a description, along with a *wikhe'gan* provided to him by a Wolastoqiyik man, Gabriel (Gabe) Acquin, in 1888 (Figures 1, 2):

> I canoed down to Washademoak lake, about 40 miles below Fredericton; then took river until it became too narrow for canoe; then 'carried' to Buctoos river; followed down to bay of Chaleur; went up the northwest Mirimachi, and 'carried' into the Nepisigiut. There spent the summer. On that river met a friend of my time; we camped there.
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> One time while I was away my friend had gone down the river by himself and had not left any *wikhe'gan* for me. I had planned to go off and left for him this *wikhe'gan*, to tell where I would be and how long gone. The wigwam at the lower left-hand corner showed the one used by us, with the river near it. The six notches over the door of the wigwam meant that I would be gone six days. The canoe and the man nearest to the wigwam referred to my friend, who had

gone in the opposite direction to that I intended to travel. Next to it I was represented in my own canoe, with rain falling, to show the day I started, which was very rainy. Then the canoe carried by me by a trail through woods shows the 'carry' to Nictaux lake, beside which is a very big mountain. I stayed at that lake for six days, counting the outgoing and returning (cited in Mallery 1893: 334–335).

Figure 1. Tracing of Mallery's rendering of the *wikhe'gan* given to him in 1888 by Gabe Acquin, a Wolastoqiyik (Maliseet) guide, hunter and interpreter from Fredericton, New Brunswick, Canada. The original *wikhe'gan* was produced on birchbark (after Mallery 1893: 336, figure 446).

Figure 2. Detail of a photograph by George Thomas Taylor, c. 1862, showing Gabe Acquin on the portico of Government House, looking at a map (from the collections of the New Brunswick Museum—Musée du Nouveau-Brunswick, accession #1999.8).

In this rendering, the origins and destinations of journeys are linked by integral features of the environment, movements along the waterways and a connecting terrestrial portage (the 'carry' in the quote above). The *wikhe'gan* also records the duration of Acquin's journey, drawing attention to the temporality of mobility across the landscape. Archaeological investigations of portage routes indicate that these were associated with sites used for a range of durations, from temporary camp sites revealing just a hearth to deeply stratified sites recording multiple occupations and functions (Blair 2010; Deal 2002; Suttie 2011).

Portage routes recorded on *wikhe'gan* or early colonial maps have been surveyed and sites that appear to be spatially associated with these routes have been excavated. These include the McDougall Falls site (BhDq11), at one end of the portage skirting the rapids of McDougall Falls on the Magaguadavic River in southwest New Brunswick. Excavations revealed a hearth, fragments of Middle Maritime Woodland ceramics, flaked stone tools and reworked stone tools (Bourgeois & Suttie 2005: 20–21). Archaeologists interpreted this as a temporary camp site, most likely used by people travelling the river and portage route between the coast and interior. The portage had been recorded by Dugald Campbell in 1797, in his work for the Surveyor General George Sproule, and reported by Ganong (1909); the route was found to be well-defined and likely still in use, more than 200 years after Campbell's mapping. The archaeological record of portage routes has been investigated at several other sites, including the portage circumventing Reversing Falls, beside which stratified sites occupied for many years were identified (Deal 2002; Suttie 2003; Suttie & Allen 2015; see Figure 1 and Section 2 of this Element).

The archaeological record of sites and artefacts associated with portage paths, the evidence from *wikhe'gan*, and the ethnographic accounts each help archaeologists understand the ways that people create the means for journeys across a landscape that includes physical, social and cultural dimensions. This evidence also highlights activities of differing durations, produced on single occasions or by repeated journeys, and underscores the importance of multiple scales of analysis to contextualise past activities within their broader temporal and spatial landscapes.

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