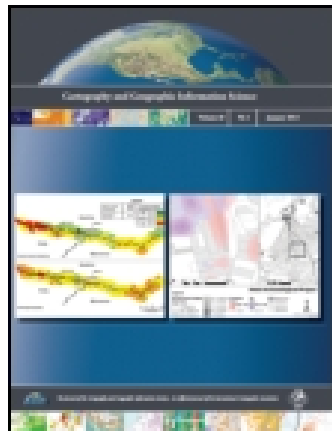


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Framing the Days: Place and Narrative in Cartography

Margaret Wickens Pearce

ABSTRACT: One of the themes of critical cartography is the question of how to map space as it is experienced. The conventions of Western cartographic language—the visual variables and their grammar—are structured to communicate spaces of homogeneity and modernity, not the spaces shaped by human experience. How then can we map place? I review some of the ways in which mapmakers have addressed this question in their visual and written works and propose another technique for uncovering place, using narrativity. Through the example of a historical map project, I consider the dialectic of place and narrative and demonstrate how this dialectic can be encoded in cartographic language.

KEYWORDS: Place, narrative, cartographic language, graphic variables

Introduction

Instead of mapping as a means of appropriation, we might begin to see it as a means of emancipation and enablement, liberating phenomena and potential from the encasements of convention and habit. What remains unseen and unrealized across seemingly exhausted grounds becomes actualized anew with the liberating efficacy of creatively aligned cartographic procedures. Mapping may thus retain its original entrepreneurial and exploratory character, actualizing within its virtual spaces new territories and prospects out of pervasive yet dormant conditions. [James Corner, The agency of mapping, p. 252.]

The look of maps is changing, again. Critical cartography, critical GIS and GPS, and artists and geographers engaged with geospatial technologies are responding to the flexibility of geospatial tools by redefining and expanding the form and function of maps and mapping (Crampton and Krygier 2005; Sheppard 2005; Abrams and Hall 2006; Perkins 2003; Perkins 2004). Mapmakers across academic disciplines and mapping professions are turning their attention to changing both the variety of map forms and mapping processes, empowered by the flexibility and accessibility of new digital technologies, a critical theoretical foundation, and an accumulated body of knowledge concerning nonwestern map traditions. The resulting critical practices empower individuals and communities (Bloch and Harrower 2006; Erle et al. 2005), resituate Western mapping techniques in the realm of performative and interventionist

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practices (Abrams and Hall 2006; Kanarinka 2006; Corner 1999), and create new, nonrepresentational forms of mapping (Kwan 2007; Perkins 2004).

A recurring theme in these critical cartographies is the question of how to express the geographies of human experience and place in the map. The question of how to map place is not new to Western cartography; rather, it is one that is now renewed and energized by theory and technology. By place, I mean “lived space,” that which is created by identity and intimate connection, as well as the creator of identity and intimate connection (Tuan 1977; Massey 1997; Casey 1993; Cresswell 2004). Place as space shaped by experience, including all that experience implies: “what a person has undergone or suffered,” “the ability to learn from what one has undergone,” and “the overcoming of perils” (Tuan 1977, p. 9). Is cartography capable of depicting spaces shaped by experience? Or are Western mapping practices antithetical to expression of place in some fundamental way such that place can only be expressed by turning away to other expressive forms, to the drawing, the photograph, or the painting?¹

Western cartography is characterized by specific assumptions and structures, and those structures carry limitations. The Western map is an assemblage of ideas about representation and reality emphasizing an “all seeing” perspective, a fixed scale, and

¹ I am using the phrase “Western cartography” to differentiate these practices from traditional Indigenous and non-western cartographies which are not delineated by these same principles and ontologies of space. (See for example Woodward, D., C. D. K. Yee, and J. E. Schwartzberg, 1994.)

mathematical projection from sphere to developable surface. Culturally constructed and infused by the cartographers' interests, the Western map actively ignores its inherent point of view by presenting a "pointless" portrayal of space (Pickles 2004, pp. 75-91; Turnbull 2000, pp. 99-124; Wood 1992, p. 76), the "view from nowhere" (Nagel 1986). Through statistical and graphic generalization, the features of the map are categorized into the hierarchies of quantitative and qualitative data; division of features into points, lines, and areas; and assignment of categories to symbolization through size, arrangement, and texture (Crampton and Krygier 2005, p. 20). The visual aesthetic that results from those accumulated layers of homogenizing categories communicates a geography of modernity, universality, detachment, and placelessness. In other words, it is a visual language more commonly used not to portray place, but to erase it.²

For those mapmakers who do seek to portray geographies shaped by experience, one strategy is to reject Western cartographic convention and remake the map through other expressive forms that more directly capture the emotional qualities of attachment to place. Artists have long explored these alternative mappings, as in the Situationists' practice of drift or *dérive*, the game-board mappings of Raoul Bunschoten (Corner 1999), and the interventionist mappings of psychogeographers today (kanarinka 2006). In geography, Keith Lilley traces the deep tradition of drawing and sketch mapping as a means to both explore and express place in cultural geography (Lilley 2000). The hand-drawn map has also served as the foundation for bioregional mapping projects, as for example the Common Ground Community Mapping Project (2006). Sketch mapping, *dérive*, and game-board maps all reject Western cartographic conventions and replace them entirely with mapping that is personal and centered on the exploration of emotional meanings in the landscape.

In this article, I focus on Western cartographic language itself, the graphic variables and their visual grammar (Bertin 1983; MacEachren 1994), as the strategic site for uncovering expression of place. Cartographic language is not fixed; it

has always remained open to revision in order to accommodate new technological capabilities (MacEachren 1995; Koch 2000) and shown to be theoretically capable of expressing multiple ontologies of space, despite the fact that those capabilities are rarely utilized (Hallisey 2005). It is an assemblage, just as Western cartographic tradition itself is an assemblage.

Despite the theorized flexibility and fluidity of its structure, geographers have only recently begun to imagine other mapping processes articulating alternative epistemologies (Pavlovskaya 2006; Kwan 2002). In my work, I seek to contribute to this re-imagining of the capabilities of Western geospatial technologies by expanding cartographic language for expression of place without leaving the realm of the digital map. As poststructuralist and non-representational mapping practices increasingly inform new critical cartographies, a return to the structures and categories of visual variables and visual grammar may appear to some as antithetical to the spirit of critical cartography. Nevertheless, I see within these structures, as expressed previously by Corner, a liberating, creative, yet dormant mode of expression in need of imaginative expansion. As John Pickles concluded:

Our existing cartographies and categories are far less fettered than we have perhaps acknowledged. This is not to say that traditional and contemporary cartographies have always been, or are currently open to these new cartographies. It is to say that it may be possible to develop new cartographies and geographies only by changing the way we think about the cartographies we have (Pickles 2004, p. 194).

In this article, I first explore how other cartographers have confronted the need to express place directly through cartographic language. Next, I present the example of how the problem of place arose as a significant question during my project to map the historical geography of fur trade voyageurs in the eighteenth century. I demonstrate the way in which I chose to address this problem of place by focusing on narrative. I propose that narrative techniques, which have been useful for creating place in other forms of artistic expres-

² It must be noted, however, that erasure of place has been and continues to be perceived by some cartographers to be the map's ideal function. As articulated by Barbara Petchenik in 1979, the superiority of the thematic map over the reference map lay in the thematic map's cognitively advanced portrayal of "knowing-about-space," as opposed to the reference map's more cognitively limited portrayal of "being-in-place" (Petchenik 1979, p. 10). In this conceptualization, place is a limited level of geographical analysis that the cartographer should strive to replace with the more robust analysis of space. To Petchenik, however, "place" was merely location, a definition not only at odds with present-day definitions of place (Cresswell 2004) but also at odds with definitions previous to and during the time in which she was writing (e.g., Tuan 1977; Wood 1977).

sion, are also useful for creating narrative in the map. My intention is to demonstrate, through a few examples, the enormous potential of narrativity as a means to expand cartography's ability to articulate multiple geographies and spaces.

Mapping Experience

The question of whether cartographic language can expand to express a sense of place extends at least to the work of the cartographer and artist Eduard Imhof, when he questioned the difference between color conventions in the map and color as it is perceived in "day to day visual experience:"

The faces of nature are extremely variable, whether viewed from an aircraft or from the ground. They change with the seasons and the time of day, with the weather, the direction of views, and with the distance from which they are observed, etc. If the completely 'lifelike' map were produced, it would contain a class of ephemeral—even momentary—phenomena; it would have to account for seasonal variation, the time of day and those things that are influenced by changing weather conditions (Imhof 1982, pp. 296-97).

Imhof explored this problem of the cartographic representation of landscape color in his 1938 map, *Karte der Gegend um den Walensee*. In this study, Imhof experimented with elevation color symbols that were "not adapted from a colored aerial photograph, but stemmed rather from the free artistic interpretation of visual impressions gained during long walks through the mountains" (Imhof 1982, p. 299). Despite the beauty of the painting that resulted from this experiment, Imhof ultimately concluded that no map could portray landscape color as experienced on the ground, writing that:

Subjective, impressionistic, artistic representation, however, will seldom serve the purpose of a map, and it does not easily lend itself to the establishment of graphic principles. Cartographic artistry such as this would lead to confusion at small scales and would weaken the map's capability to convey information (Imhof 1982, p. 299).

Although he had found the generalization of landscape color "unavoidable," Imhof maintained that cartographers must preserve in their tint schemes a connection between standardized color and color as it is experienced.

Denis Wood and Robert Beck also explored the graphic symbolization of experience in the map. Wood and Beck pointed out that, because sketch mapping provided no common vocabulary of symbols to people who may never have made a map before, sketch maps were more reflective of a person's ability to cope with map anxiety or "graphophobia" than of their experience of place. Instead, they envisioned the development of a new language of graphic symbols, *Environmental A*, which would be more capable of representing experience than conventional cartographic symbols (Wood and Beck 1976; Wood and Beck 1989). Wood continued to articulate the need for representing space as it is experienced by individuals, such as individual experiences of direction and environmental perceptions of color, using an alternative, structured, cartographic language capable of recording and communicating those spaces of experience (Wood 1977; Wood 1978). "So it is in fact," he wrote, "that we abdicate the reality of our experience of space and time in favor of the collective acceptance of a geometry that bears no witness to our lives" (Wood 1977, p. 13). Later, he turned to the question of narrative, calling for cartographers to approach the atlas as a form of narrative, as a novel rather than a reference work. Such an approach would encourage people to read the atlas with the same level of absorption they bring to reading novels for pleasure, and this in turn would have an emancipatory effect on the design and function of atlases in society:

With the map revealed as but a member of the larger family of representations (movies, histories, fables, essays, introductory texts, comedies, landscape paintings, photographs), it can be allowed to participate more fully in their larger traditions, to be admitted, for instance to the company of texts of pleasure.... With the map being read, it will soon enough come to be narrated: it cannot be a distant prospect, the atlas as novel (Wood 1987, p. 28).

Wood located this potential narrative structure in the way in which the maps or plates were organized, ordered, and sequenced through the book, particularly as such an arrangement would foster the cartographers' viewpoint. In Wood's conceptualization, narrative lay in the visual syntax between, rather than within, the maps in the atlas. Although he stressed that this would be a fundamentally necessary transformation for the atlas, he concluded that he had "little expectation of it happening" (Wood 1987, p. 40). Wood's work inspired at least one exploration of the atlas' potential to tell sto-

ries about communities (Grossman 1998, p. 11; Wisconsin Cartographers' Guild 1998).

Other mapmakers have focused on developing the agency of map symbols. For example, James Corner describes Rem Koolhaas' strategy of layering, using all of the components of cartographic symbolization but removing conventional visual hierarchies. "The resulting structure," writes Corner, "is a complex fabric, without centre, hierarchy, or single organizing principle" (Corner 1999, p. 235). Corner has used a similar strategy in his "rhizomatic" works inspired by Deleuze and Guattari's vision of mapping practices that foster "plurality of readings, uses and effects" through inclusivity, agency, and affect (Corner 1999, p. 244, after Deleuze and Guattari 1987, pp. 6-11). In Corner's maps, the familiar landscapes of U.S. Geological Survey maps are shifted within their own spaces through "cropping and reframing" and incorporation into "other systems of notation that are intended to 'open' and further 'extend' the field" (Corner 1999, p. 247; see also Corner 1996). Related to these practices, John Krygier develops mapping practices that comment directly on the problematic nature of cartographic conventions through an intervention in the space of the map itself (Krygier 2006b).

The most common technique explored by mapmakers is to give experience its own layer in an otherwise conventional map. For example, Marie Cieri takes this approach for her exploration of the representation of lesbian places and perceptions in downtown Philadelphia, through the writing of individuals' sketches as an additional layer superimposed on a MapQuest street map of the city (Cieri 2003). Jake Barton layers first-person written and audio stories into both digital and paper maps. Graphic designers in particular have delved into the use of sound, both ambient and narrational, as a layer in the map that encodes for place. "Folk songs for the Five Points," for example, weaves in place through a blend of voices, music, and ambient sounds taped at different locations in the Five Points neighborhood of Lower Manhattan (Lower East Side Tenement Museum 2006). In all three of these examples, the graphic map itself is composed through the conventional cartographic language of objective space, devoid of experience, and then connected to experience and memory through the addition of an affective overlay of sketching, story, or sound.

Related to the use of additional layers of experience is the technique of mapping personal trajectories of experience across the digital map using GPS; numerous examples of this technique

can be found in geography, art, and community mapping (Kwan 2007). In GISci, Mei-Po Kwan addresses the question of mapping experience through embodied mappings and trajectories. Further inspired by Deleuze and Guattari (1987) and the potential of non-representational theory to shape GT for feminist epistemology, Kwan experiments with non-representational artistic renderings by combining GIS and video in order to express a feminist epistemology of space in the map. In her 3D GIS movie depiction of a Muslim woman's day in Columbus, Ohio, Kwan develops specific techniques for expanding GIS to encode for experience. By using the oblique angles of 3D, she replaces the cartographic gaze with point of view and uses hue to encode perceptions of danger as experienced by women along different urban trajectories. Finally, by using the temporal medium of video, she creates the sequential structure for inserting narrative (Kwan 2007:26-28).

In sum, the search for a cartographic language capable of evoking experience, whether the need for such capability results from work in environmental perception, drift, agency, or rhizomatic mappings, is an old question but one that remains a site of significant interest today. Strategies for incorporating experience in the structure of the map have included the use of the dimensions of color to encode emotion, the use of oblique perspective to encode point of view, and the addition of layers inscribed with sound, text, and sketching on the conventional map to encode story and perception. The flexibility of new geospatial technologies fosters these projects, as does the increasing interest in epistemological diversity in critical cartography and critical GIS. As a result, mapmakers are overturning perceived limitations of the kinds of geographies that may be expressed through mapping.

I suggest that an additional strategy for mapping experience, specifically, the concept of place, is the direct incorporation of narrative techniques in the visual variables and visual grammar of cartographic language. If novelists can express the meaning of place through symbol only—letters on a page—then so, too, we should be able to express place through cartographic symbol only, using the same device of narrativity.

Place and Narrative in the Map

Narrative is not merely a story, or the representation of events. It is the combination of story with narrative discourse, the presentation of

that story in a particular way (Chatman 1978, p. 19; Prince 1987, p. 91). Narrative is shaped by temporality and has a beginning, middle, and an end, although not necessarily presented in that order. Narrative is created through specific techniques, including, but not limited to, focalization, pacing, and closure.

Despite its temporality, narrative has been demonstrated to share much in common with place (Tuan 1991; Entrikin 1991). As a combination of story and discourse, narrative transcends mere description in the same way that place transcends mere location, by shaping it with meaning. "Narratives do not describe the world; they 're-describe' it. Thus, more important than the listing of one event after another, or chronology, is the configurational quality of narrative, of one event because of another" (Entrikin 1991:127).

Place and narrative are also mutually constituted. Narrative produces place, and place in turn fosters and produces narrative (Tuan 1991). Stuart Aitken and Leo Zonn describe the narrative conventions that filmmakers use to create place within cinematic space as a way of "holding" that narrative in the film (Aitken and Zonn 1994, p. 16). Narrative needs something to adhere to visually, and in film that visual something is place. So, place is not only produced by narrative and interpreted through narrative, place also holds or anchors narrative. Place creates the conditions for narrative to exist. Narrative structure, in turn, gives us a consciousness of place.

The structures of narrative and place also resemble each other in that each draws simultaneously on the world of facts and the world of individual experience. Narrative fosters "a sense both of being 'in a place' and 'at a location,' of being at the center and being at a point in a centerless world" (Entrikin 1991, p. 134). Place is a "narrative-like synthesis" because it, too, resides in a tension between being both relatively centered and relatively de-centered, "best viewed from points in between" (Entrikin 1991, p. 5). That is, we see place most clearly when we interpret it in context, through the tension between presence and absence of experience, between involvement in and detachment from the landscape. An understanding of place can thus only be gained through "a better understanding of the narrative-like qualities that give structure to our attempts to capture the particular connections between people and places" (Entrikin 1991, p. 14).

By differentiating involvement and detachment, there is the danger of falling into a binary mode of inquiry (Del Casino and Hanna 2005). As a cartog-

rapher, however, I find it very useful to conceive of place, that which I wish to map, as located at the tension between the spaces shaped by experience and those unshaped, because it provides me with a mental image of where and how to encode for place in the design of the map. It provides me with a framework, enabling me to conceive of a map which does not reject space for place, but which locates and limns place's movement, coalescence, and borderlands in a single field.

Given this dialectic between place and narrative, the narrative structures that create the qualities of place in other forms of expression should also be potentially useful to create place in the map. Creating a map using cartographic language is a deliberate process in which we structure the data classification, generalization, projection, and design hierarchies in ways that express at every level that which we perceive to be the shape of the data set. Approaching cartographic language as narrative also allows us to structure the map deliberately to express the particular shape of the narrative we seek to map by combining the language of graphic variables and their grammar with narrative technique.

Mapping Voyageur Geography

The context within which I began exploring these ideas was while working on a project to map the eighteenth century historical landscape of voyageurs in the Upper Great Lakes fur trade. Voyageurs were predominantly young men from farming villages around Montreal who moved trade goods westward from Montreal into the Canadian Interior and moved furs back eastward to Montreal, as paddlers, guides, interpreters, and clerks for the North West Company. Neither explorers nor settlers, their primary purpose was to move goods as rapidly over water as possible. To achieve this, voyageurs paddled and portaged an average of 16-18 hours a day, pausing only to eat, sleep, smoke a pipe, or wait out a storm. Depending on the route, they were known to cover up to 80 miles in one day (when cruising Lake Superior in favorable conditions), or as little as a few miles when dragging their canoes up steep portages or across shallow swamps. Though the routes they followed were well worn and predetermined, their journeys remained both grueling and dangerous. The extreme physical labor of their work took its toll; by the time he was in his thirties, if he were still alive, a voyageur was headed for retirement.

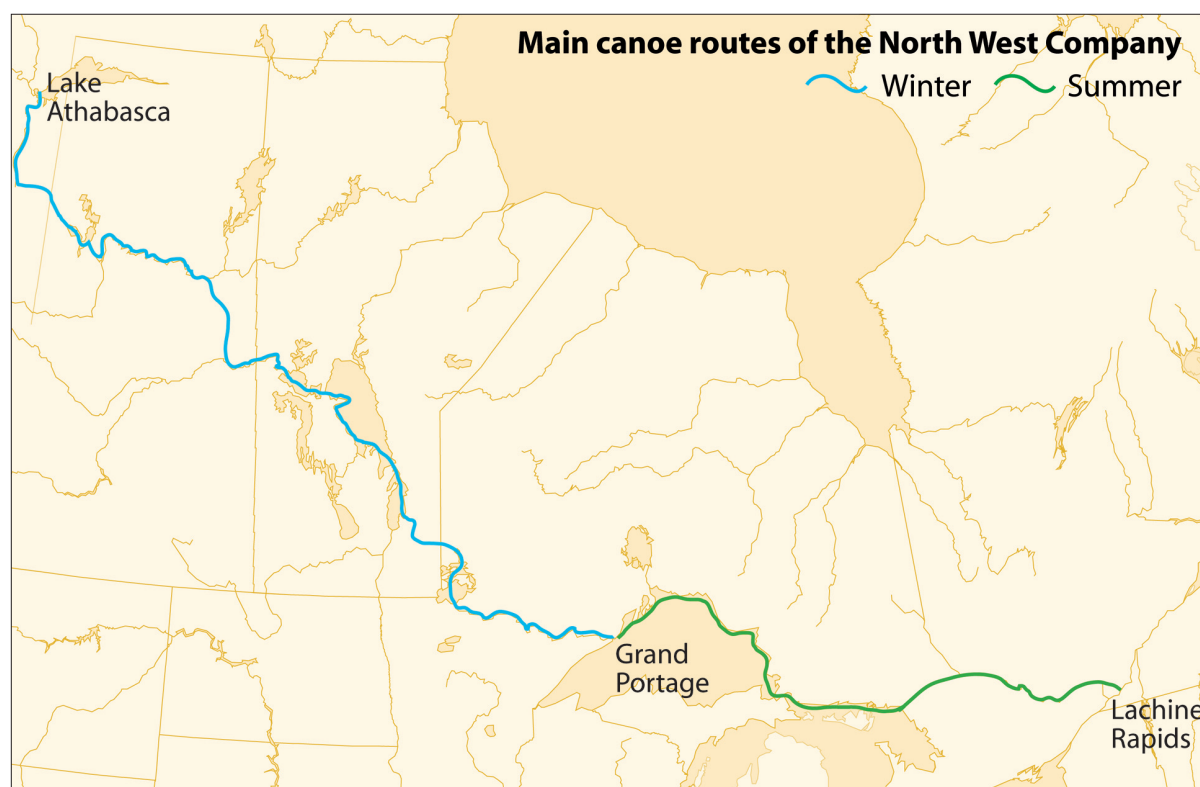


Figure 1. Winter and summer routes of the North West Company. [Map by the author.]

Two main canoe arteries structured this economic system (Figure 1). There was the summer route, a series of rivers, swamps, and portages stitched together between Lachine Rapids and Grand Portage, which took about five weeks. At Grand Portage, after a respite and rendezvous, voyageurs unloaded trade goods from the canoes, reloaded them with packs of furs, and then canoed back to Lachine Rapids along the same summer route. Experienced voyageurs moved on from Grand Portage for the winter route: west and north to Lake Athabasca by canoe and sledge with goods to trade for more furs.

It was a world that was, as Carolyn Podruchny has written, “fluid and far-flung” (Podruchny 1999, pp. 9-10). It was far-flung in the sense that voyageurs paddled extraordinary distances, and fluid not only in the sense that they were constantly moving along a watery path that was itself moving, but also fluid in commitment: fluid in their many marriages to Native women in the Interior, and fluid in their embrace and mixing of language, music, and ornament from French, English, Scottish, Ojibwe, Cree, and Athabasca cultural traditions.

Despite their world of work, voyageurs created a community of ritual, song, dress, and language uniquely their own. They reshaped their routes

with an entire cultural landscape of their own, inscribing trees and rocks as sites of redirection, to commemorate mythic or tragic events, or to describe the place’s symbolic significance to the overall route. They named the bays, capes, and sandy points of lake coastlines, and the rapids and portages, many of which continue in use today: Pointe Chapeau, Pointe au Baptême, Pointe Detour, Point Soule Choix (Podruchny 1999, pp. 400-402). Recognition of the importance of each place through symbolic ceremony was part of the formation and reaffirmation of that identity: here one doffs one’s hat and makes the sign of the cross, there a ritual drink or food is eaten, and over there a specific song is to be sung. Voyageurs honored and celebrated changes in the physical landscape as well, for example, symbolically baptizing one another at their first glimpse of the rock of the Canadian Shield, or at their passage from the Superior watershed into that of Hudson’s Bay or the Arctic Ocean (Podruchny 1999, pp. 354-394).

Voyageurs also structured their landscape with their own unique measures of distance. They formally estimated distances in “leagues” of about two miles in length, but league estimates in the records are vague and widely varied. Their more precise means of estimating distance was tem-

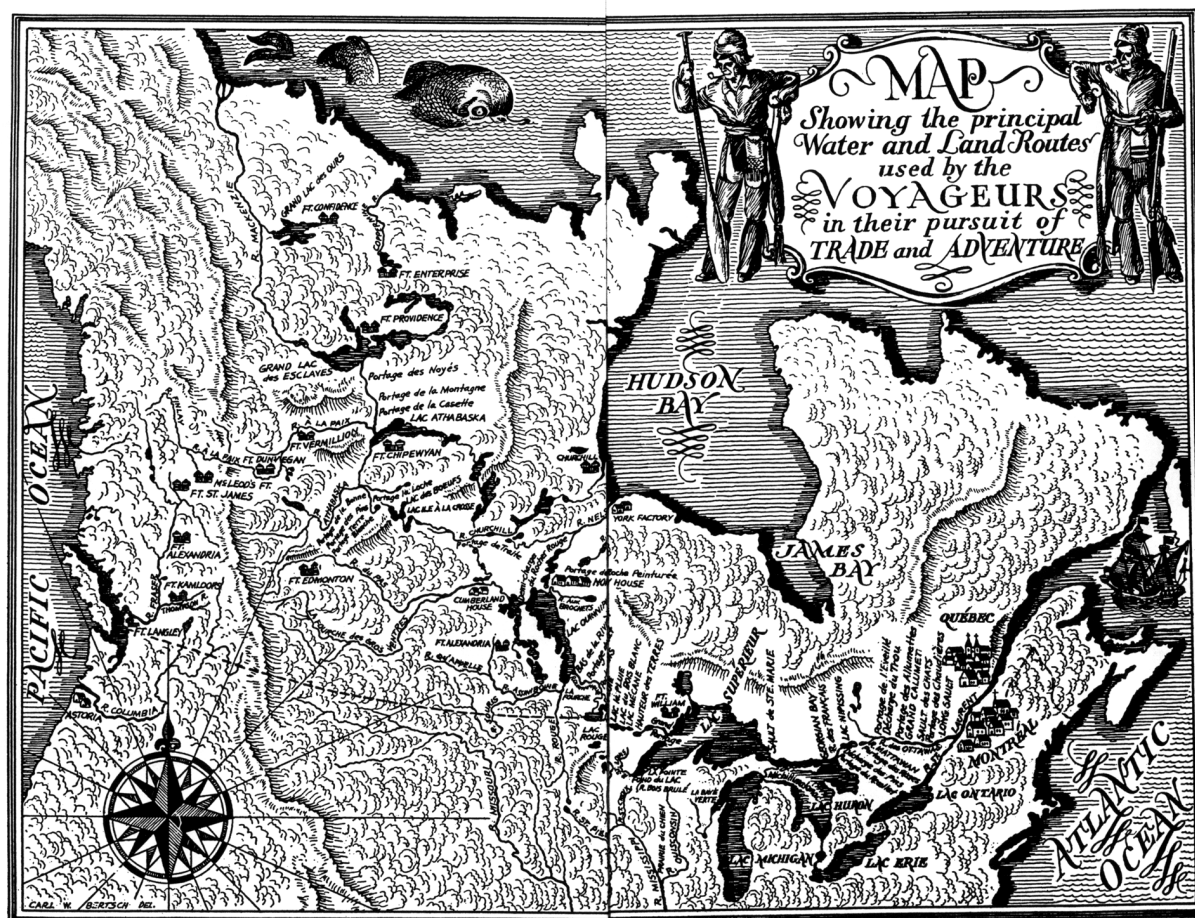


Figure 2. An “antiqued” approach to visualizing the voyageur landscape. [In: Nute, Grace Lee. 1931, rep. 1955. *The voyageur*. Minnesota Historical Society, St. Paul, Minnesota.]

poral, the distance that a canoe could travel in a day and the activities that shaped that day. Each day was broken down into “pipes,” or smoking breaks, granted in regular intervals of about every half hour to hour. A pipe was a break but also the distance between breaks; each leg of the day was expressed in pipe measure. Songs were another temporal unit translated to horizontal movement. North West Company voyageur Alexander Ross bragged, for example, that he could paddle fifty songs in a day (Podruchny 1999, pp. 16-17).

Although there is a wealth of written information regarding the voyageurs and their journeys, there has been comparatively little mapping. Secondary sources occasionally include large-scale maps illustrating a particular event or portage path (e.g., Morse 1979), but there has never been a detailed map of the entire route. The small-scale map as frontispiece marks most of the available maps, but because of the large extent of territory to be covered, these maps are barely capable of depicting the fundamental geographical details. In Grace Lee Nute’s classic study, one can see the yearning

for the local, for place, in the frontispiece through the use of the “antiqued” map (Figure 2) (Nute 1931 rep. 1955). However, even the antiqued map falls short; in the same work, Nute laments, “when shall we have a map of the voyageur’s habitat?” (Nute 1931, p. 261).

My goal was only to begin with the summer route, Lachine to Grand Portage. To guide me down this route, I needed a voice, someone to describe his or her daily world to me, which I found in John Macdonell. Macdonell was a 24-year-old from Scotland via Montreal who made his first trip into the Interior in 1793 as a clerk for the North West Company, and on that trip he kept a detailed diary (Gates 1965). Using this diary, I mapped MacDonell’s route, marking the locations of his campsites to indicate the start and end of each day, and marking events such as portages or visits to posts. From the start, I knew his general route, but I did not know how it would look with the days reconstructed on the map. I was reading the diary and marking the places (Figure 3), and Macdonell was leading me along on his trip.

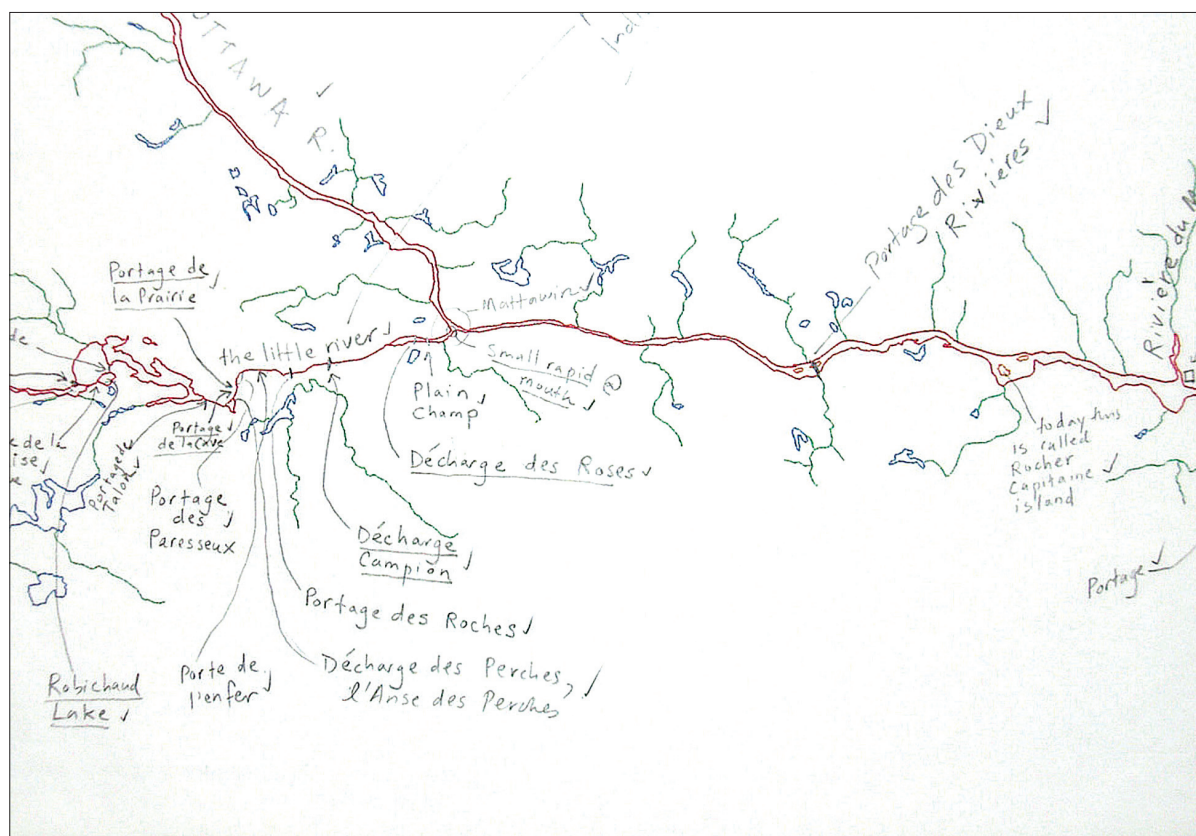


Figure 3. Marking MacDonell's places. [Map by the author.]

I soon understood the reason for the absence of this type of map. The summer route stretches across the Great Lakes yet is composed of a multitude of tiny, named places, creating an extreme case of micro/macro readings (Tufte 1990, p. 37). Usually, there are three options for micro/macro readings: a small-scale map, strip map, or atlas or map with insets. The small-scale map is efficient, conventional, and, by sacrificing the shaped details of the local, an expression of space rather than place. The small-scale map can be broken into a strip map in order to show more detail and in the context of the local landscape, but the story is no longer whole; syntax is broken by shifting orientation and direction with each strip. Detail and context can also be shown by breaking the map or atlas with insets. However, breaking the scale with insets also breaks the whole and the syntax; in the atlas, the map is bent into a book.

The unique power of the map, over the word, is its ability to depict simultaneity. An entire narrative, beginning to end, is delivered to the map-reader in a single gaze, and it is this sweep of the whole that draws us in to consider the details of places. To retain the syntax of extreme micro/macro topology, the scale of the map must be simultaneously large, to depict the locations of small places of

significance, and small, to preserve connectivity to the whole.

I began at 1:1 million, but as Macdonell's canoe slowed, as they dragged their boat over rocks for 18-hour stretches, I had to push that scale back to 1:500,000, or almost eight miles to the inch, so that on the day with the shortest distance traveled, there could be at least some visible horizontal movement in the map. By the time Macdonell and I had reached Grand Portage, the map was an unruly six feet in length; I had indeed found a scale of place that was "fluid and far-flung." Even at this size, however, as I watched the way that the place names accumulated on the map, I realized that I had a problem, which was that by merely marking locations, even named locations, I was leaving behind most of the story. The map itself looked fine. It was composed of a good hydrology data set, projected appropriately, with painstaking research behind the portage locations. But that which I saw in the journal, and in my mind, was not making its way into the map; I was converting to placelessness what is essentially a story about place.

We conventionally associate journeys with movement, or transience, a kind of narrative that engages with place twice: at a beginning place

and an ending place. However, as Edward Casey has written, journeys are composed entirely of places, of movement “from place to place,” as space is shaped through experiences and the memories and meanings of those experiences. Casey demonstrates that in this way, a journey creates what Deleuze and Guattari call a “smooth space,” a non-homogeneous space of linkages between points of contact. “Journeys thus not only take us to places but embroil us in them” (Casey 1993, pp. 275-76). These “interplaces” are themselves shaped by motion:

As holding and marking the stages of a journey, places exhibit notably stationary virtues. However, as the loci of engaged motion—both the more conspicuous motion of moving-between-places and the more subtle motion of being-in-place—places show themselves to be remarkably nonstatic. They are the foci of flow on the pathway of the journey (Casey 1993, p. 280).

The length of the map addressed the need for wholeness and keeping place and space in proper syntax, yet place remained insufficiently addressed. An abundance of named locations does not in and of itself express place. If journeys are defined by places in motion, then I needed to tell Macdonell’s story in a way that would convey this; I needed a narrative discourse for journey. I began by conceptualizing place as its own layer, following the lead of Barton and others who have used this technique. In Macdonell’s diary, he not only recorded the place names he learned each day, he also related the day’s events, the weather, and his thoughts. For each entry, I chose a sentence or two evocative of that particular day and inserted his words, his voice, directly in the map, verbatim, first person present tense. This was a literal insertion of narrative: the map now had a story with a beginning, middle, and an end, and a voice or narrator for narrative discourse.

By adding this particular layer of narrative, I was working with the symbols of written language, not cartographic language. Yet my goal was not to write a history of the North West Company as seen by a young Scottish clerk; my goal was to make a map. I wanted place not confined to its own layer but embedded in the cartographic language itself.

Framing the Days

To mark an individual’s path across a map, regardless of the scale of that map, we draw a

line. The problem with that line is that it does not reflect the fullness of the world as we experience it while traveling along a path. Traveling is not a linear sensation but a sense of enclosure by a moving landscape. In a canoe journey, this enclosure may be expanded by the broad landscapes of open country and waters and then contracted to confined or claustrophobic tunnels in small, steep-sided rivers and brushy portages. It is never like a string, which is what a linear path looks like on a map.

This string was acting against the quality of place created by Macdonell’s voice. A line that does not vary in color, shape, or width cannot do justice to days alternately shaped by tedium and exhaustion, fear and struggle, or joy and laughter. To restore place to this map, the journey as line would have to be re-mapped to journey as a series of places created by daily experience. These places would have to be graphically flexible to represent not only the varieties of experience, but also the shifting linear measurement of each day’s paddle.

The solution was to think of each day as its own map and the journey as a progression from one map to the next, graphically expressed by removing the line and giving each day its own space in a frame. With frames, the reader would see each day uniquely but also in relationship to the other days, and the journey as a whole. Individual frames also allowed me to break the rule about visual variables that all geographical features must be linked in categories and share the same color codes uniformly across the map (e.g., all rivers shall be blue, all land shall be green). Instead, I could encode each day with its own individual narrative palette, translated from Macdonell’s voice.

Returning to Macdonell’s diary, I reread each day and thought, what is the palette of this day? I combined hues from the changing physical landscape (in Figure 4, he is traveling from east to west, and you can see the transition from sunny river rocks, to a foggy day, to another beautiful day on the water), with hues from Macdonell’s changing emotional landscape. In the map detail in Figure 5, the weather turned very cold and Macdonell’s writing became apprehensive, then despairing. In the last few days of the trip, with hopes of survival, his mood shifts to anticipation and then joy of arrival, and he stops writing about the physical landscape entirely; it is all glorious emotion. Compare this to the moment on the river when Macdonell’s contentment shifts to gloom when he begins to see the graves of voyageurs who have come this way before him (Figure 6).

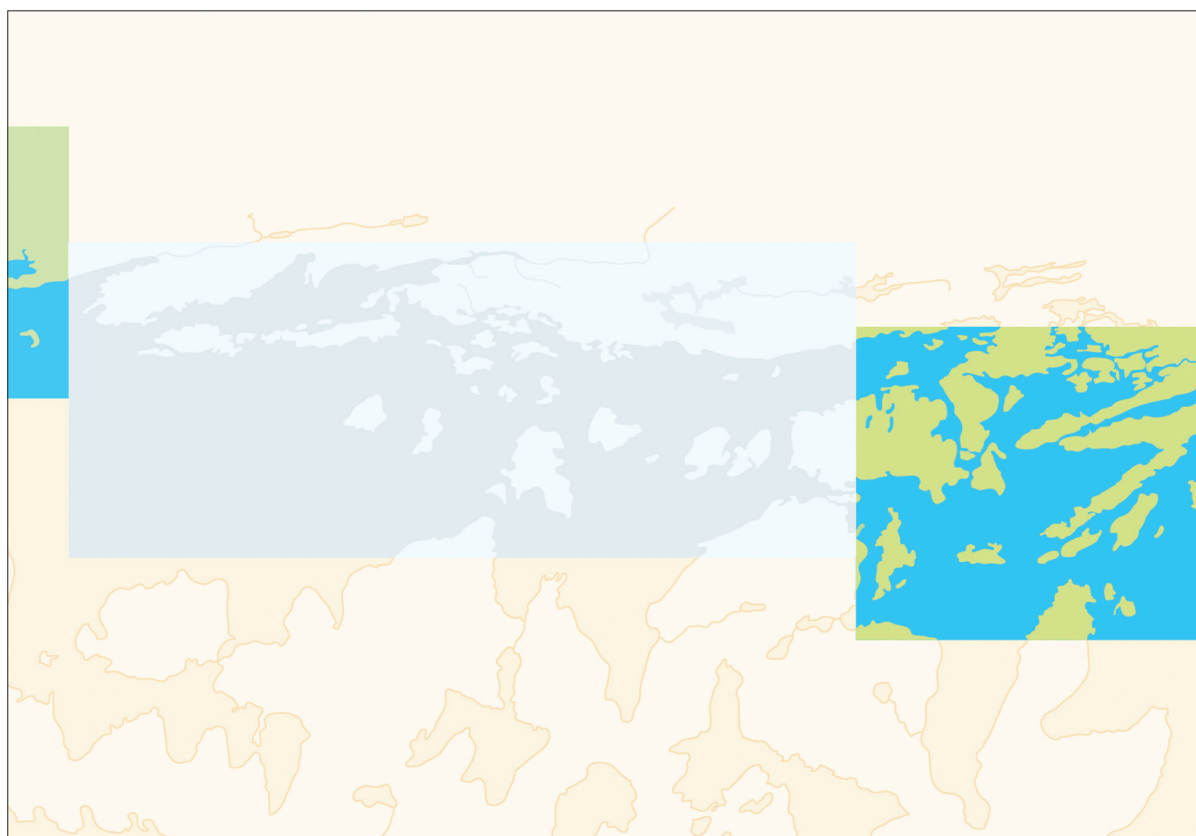


Figure 4. A foggy day between two sunny days. [Map by the author.]

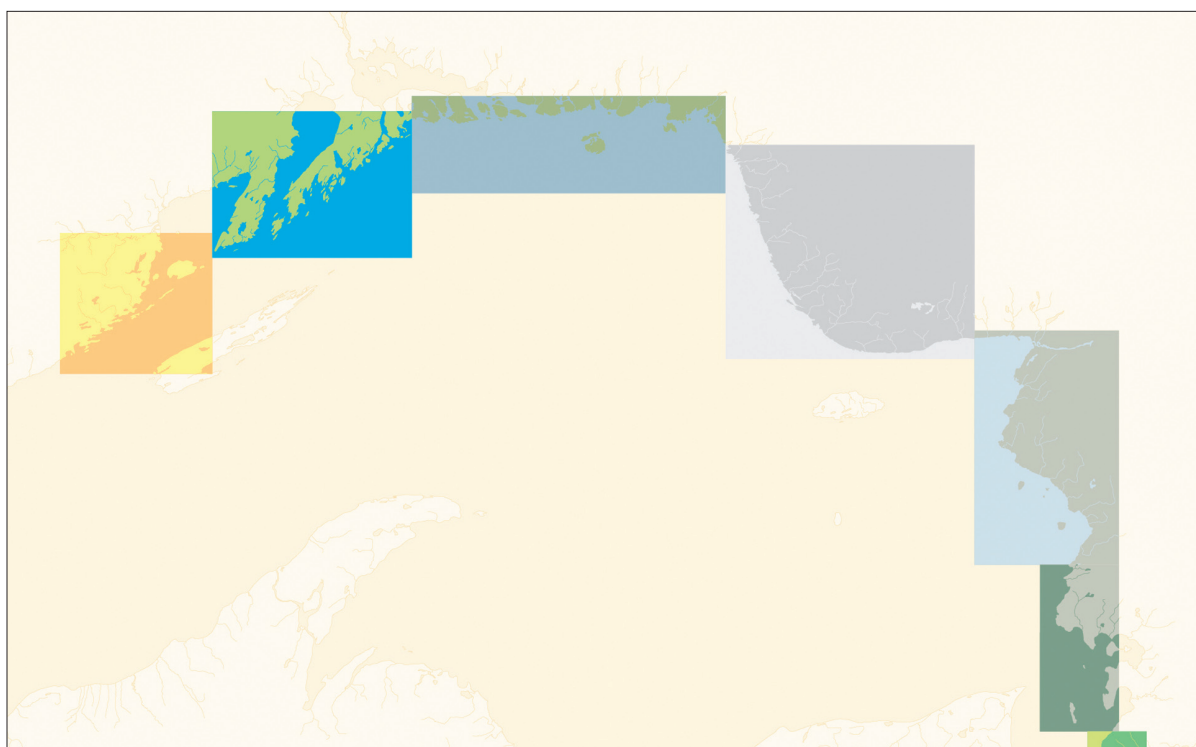


Figure 5. From east to west, despair and fear transitioning to joy. [Map by the author.]

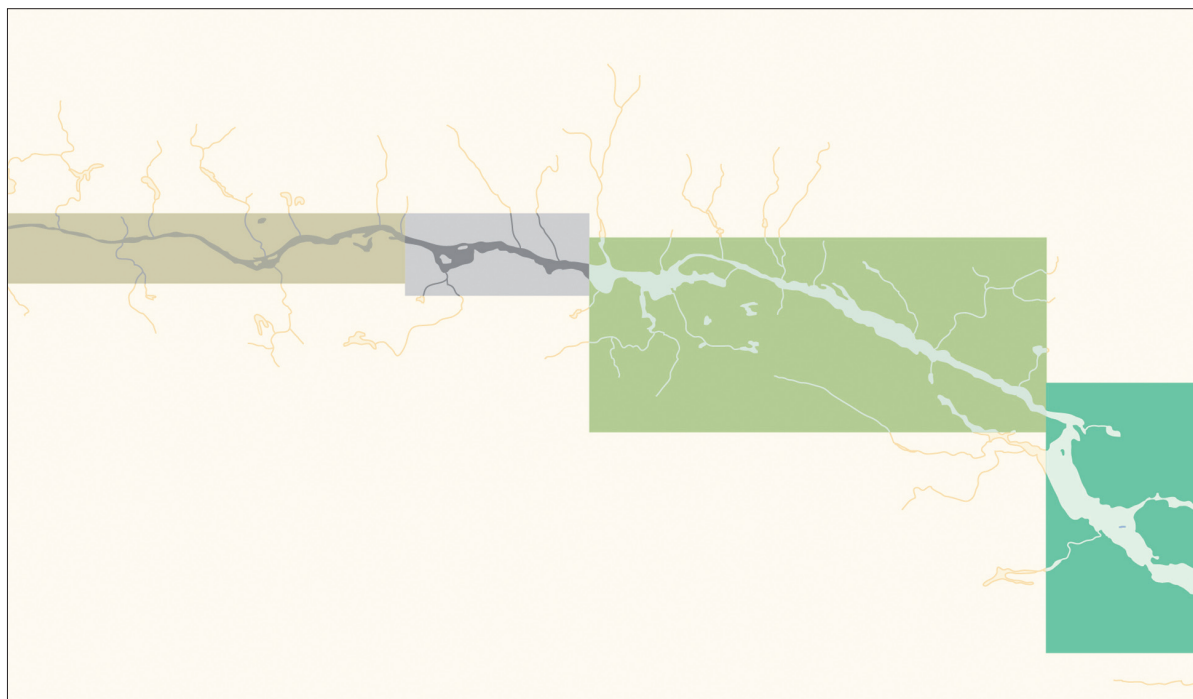


Figure 6. The toil of the portages casts a gloom over the journey. [Map by the author.]

With these frames in the map, I moved Macdonell's words so they would operate as a narrative caption for each frame. I set his words in red to evoke the voyageur's red hats and in Myriad with a small font size to evoke Macdonell's newness: his youth and his inexperience. Now I had his words to partially illuminate the meanings of the shifting

colors (Figure 7), and because of the frames, I had a narrator that would lead the reader through the map at the pace at which he experienced it, just as I had been led when I mapped it. Outside of the frames was the barest of coastline tracings. The result was a very different map showing the accumulation of days and places making up a

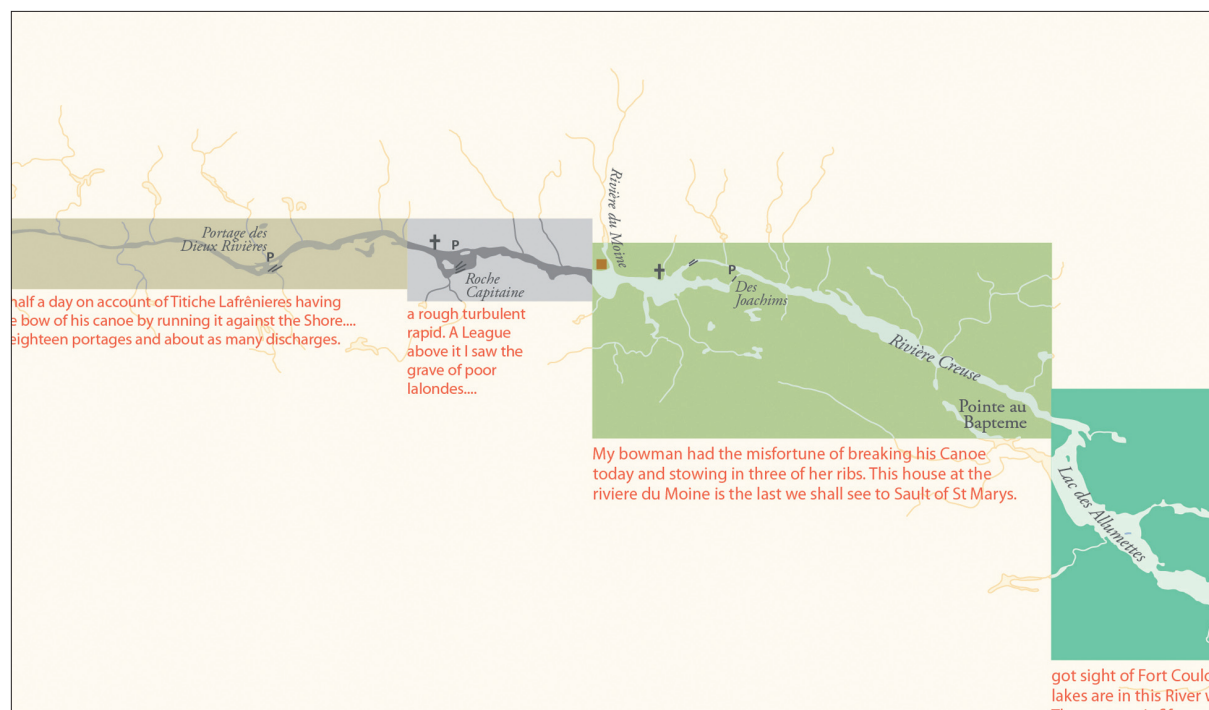


Figure 7. Macdonell's voice illuminates the meanings of the frames. [Map by the author.]

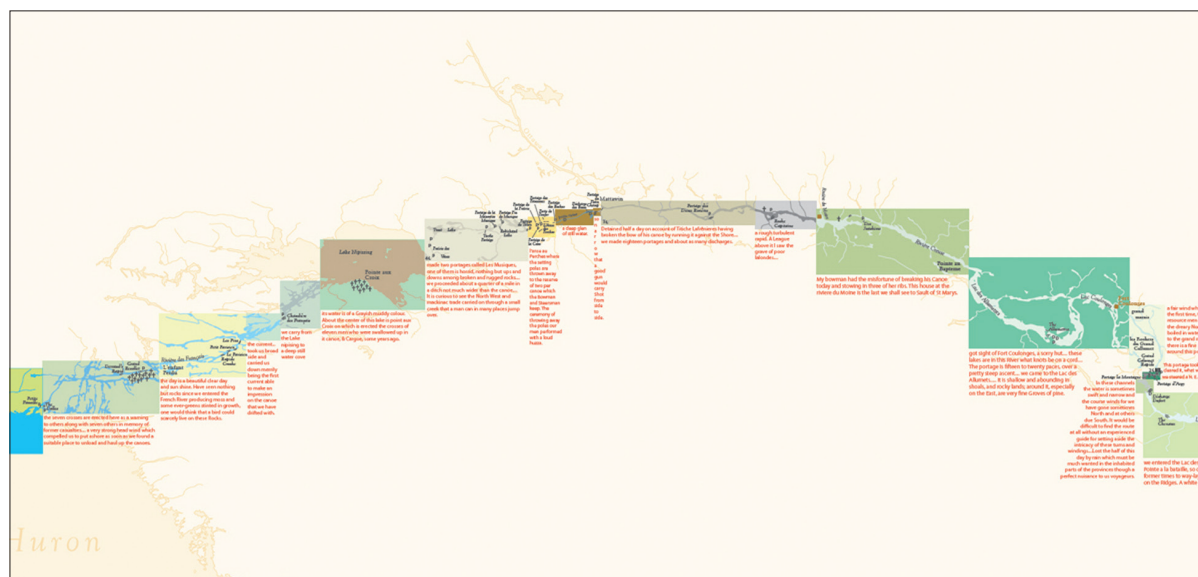


Figure 8. An accumulation of places creates a journey. Map by the author.

journey (Figures 8 and 9). Each day is its own map, with its own palette and its own title. Place was emerging, but not from any one element or layer in the map. Frames, symbols, story, and scale were combining in the map in a way that was creating the qualities for place—identity, betweenness, and intimate connection. In the next section, I consider in depth the sources of those qualities in the map.

The Qualities of Place

In this map, Macdonell's identity shapes space, and it is created through the focalization of voice and framing. Macdonell's voice not only serves as a narrator for a sequence of events, it also shapes space through text (as story) and color (as focalization, through lighting). His voice introduces each map at the same time that it warps the color symbolization. His memory of the day, his words, the palette of his emotional landscape, all form the figure of the map, and all outside his identity is the desaturated and anonymous ground. His identity brings the map into being; by following Macdonell's voice across the map, we are following only the places created by his identity. Pacing also forms identity. The distance of each day varies considerably, so the width of the frames shrinks and expands to size. When you read the frames, you slow down or speed up as MacDonell himself slows down or speeds up. The narrative sets the pace, and the reader can feel the squeeze of a rock wall or the

vastness of Lake Superior as their reading slows down or spreads out.

Voice, framing, and scale also create the quality of betweenness. Macdonell writes at the end of the day, looking back; he is no longer in that experience as he recounts it, he is outside of it and looking back into it, one step detached from his experience. The hues of the frames encode his remembered experiences, but they are connected to the space outside the frames where no memories are shaping places. By maintaining a visual connection between the frames in the journey with the single frame of outside space, the connections between involvement and detachment are preserved. This connectivity is repeated in the encoding of distance in the scale bars which measure out both the generalized sense of distance delineated by leagues as well as the experiential distance delineated by pipes.

This quality of betweenness is echoed in the focalizing structure of the narration. There are two narrators in this map: one close (Macdonell's description of the details of his journey), and one distant (the neutral narrator of the map as a whole, my cartographic gaze). The distant narrator resides in the "view from nowhere" perspective of the Lambert Conformal Conic projection and the unexperienced spaces outside the frames. The close narrator is in profile, before us, telling a story. Two perspectival heights exist simultaneously in the map through a combination of voice and graphic symbol. This is focalization not in the sense of a written narrative, but in a distinctly cartographic kind of narrative, a cartographic focalization.

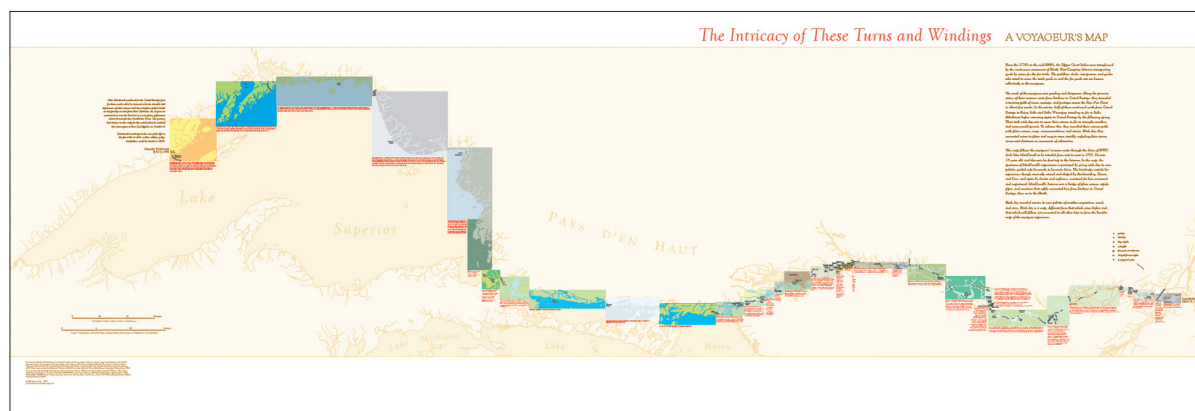


Figure 9. The whole journey. [Map by the author.]

Infusing all of the elements in the map is the quality of intimate connection, created through the narrative technique of voice. When we read the path of a journey in a historical map, conventionally the track or voice of that journey is described in the third person: “he was there.” Our feeling as readers is as detached as the narrator recounting this man’s journey. If the narrator remains in the first person, and the tense shifts between past and present and future as is natural in journal writing, the gaze is removed, and we are face to face with the traveler in the map. The detached “he was there” is replaced by the intimate “I am here.”

The scale of the map creates intimacy. To find the scale of this place, the map had to be oversize, yet many of the features on the map remain tiny because of the density of experience that Macdonell mentions as well as the extremes between short and long distances paddled on a given day. This combination of large format and tiny detail has an effect: I am inviting the reader to look, because of the size, and I am inviting the reader to come close, because the story is depicted very small. In so doing, I am practicing what Edward Casey calls the “non-exclusive openness” that creates place; to include, rather than exclude, the reader, within the narrative, by being open to that reader (Casey 2002, p. 250).

Yet intimacy is more than openness and proximity; it is also the presence of a particular kind of brevity that only the reader can resolve. “To intimate,” writes Lauren Berlant, “... is to communicate with the sparest of signs and gestures, and at its root intimacy has the quality of eloquence and brevity. But intimacy also involves an aspiration for a narrative about something shared, a story about oneself and others that will turn out in a particular way (Berlant 1998, p. 281).

This quality of intimacy is created using ambiguity, or gaps in the closure of the narrative, a technique used in literature, film, and comics (Iser 1974; Eisenstein 1969; Murch 1995; McCloud 1994). Without closure, the reader or viewer must become personally involved in the narrative in order to close the gap, in turn energizing the narrative:

... for each individual reader will fill in the gaps in his own way, thereby excluding the various other possibilities; as he reads, he will make his own decision as to how the gap is to be filled. In this very act, the dynamics of reading are revealed (Iser 1974, p. 280).

The effect of the ambiguity or “unsolved problem” must be so subtle, however, that the viewer is unaware of solving it. As the film editor, Walter Murch, describes it:

As it’s happening they don’t stop to think: That’s just me completing it. They really see something that appears as authentic to them as anything else that’s actually physically in the film. How does this happen? It can only be because the film is ambiguous in the right places and draws something out of you that comes from your own experience. And then you see it on screen and think: Only I know that, so the film must be meant for me (Ondaatje 2002; pp. 46-47).

In the map I created for this project, the voice that supports the frame is not a verbatim transcript of the entire journal entry; it is one or two sentences I selected to be evocative of the day. The hues of the frames conflate physical and emotional landscapes but leave the relative proportions of the physical and the emotional unspecified. They are loosely delineated by voice, but not completely; the

reader must close the narrative and interpret the palette with his or her own experiences and ideas of what is happening at that moment in the story. If I leave out that last piece, the exact meaning of the color, the connection between color and diary, you must close the narrative of what is happening in that day from your own experience. Together, voice, scale, and ambiguity create intimacy in the map; intimacy makes places that hold the narrative. I am locating you in the journey and in the map: now place is shaped by your experience, too. Place has come from the reader.

Conclusion

I do not wish to overstate the extent to which I was able to bring place into cartographic language through narrative. I have used narrativity in this project only at the most fundamental level. Yet I hope it is enough to demonstrate the potential that is there, to contribute not only to theoretical research in cartographic language, but to the practice of cartography as well. Any cartographer embarking on the production of a cultural or historical map has faced this question of how to convey the historical moment by creating a sense of place in the map. Framing, scale, and voice are techniques that, as I have shown, have the potential to create those conditions.

I have also demonstrated that the development and expansion of cartographic language through narrative technique contributes to theoretical research in social and cultural geography. The question of place and experience in the map is now renewed by interest in theories of affect and emotion among the social sciences generally (Anderson 2006; Thrift 2006) and critical cartography and GISci particularly (Corner 1996; Kwan 2007). These new, nonrepresentational mappings develop and deepen theories of affective and emotional geographies by demonstrating what nonrepresentational strategies and practices might look like. My approach to affective mapping is structural by contrast and, as such, would appear to be antithetical to the spirit of affective and emotional geographies. Yet, I have demonstrated that narrative technique allows cartographers to create the conditions of affective geographies in the map by fostering performativity and intimacy and encoding for the movement of emotions in the landscape.

In sum, we can represent sense of place without turning away from the map to the painting or photograph by expanding our cartographic language

using narrative techniques that strengthen what we already have, just as we search for the right way to describe something in verbal or written language without turning away from the word but by building on our existing language. One key to making this work, I believe, is to focus on narrative and an encoding of the qualities that hold the narrative in place—identity, betweenness, and intimate connection with the reader.

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