

Enhanced Reading of Travel Accounts with the SIMILE Exhibit Widget¹

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Travel accounts contain a wealth of information which have been used by historians to study explorations, colonial society, native society, cultural representations, and literary discourse.² From the early explorers' accounts³ to the Lewis and Clark expedition,⁴ this form of literature is one of the rare sources which are essential to academics while being accessible to the general public. Historians are now turning to these documents as a source to study the history of the environment, representations of the natural world, or the acquisition of scientific knowledge on all continents.⁵ In North America, travel narratives, natural histories, and scientific reports provide us with unique snapshots of many parts of the continent. Produced from the 17th to the early 20th centuries as explorers, travelers, missionaries, and government agents extended their presence across the North American continent, these texts describe geographic features and human settlements, collect information regarding the climate (temperatures, seeding, harvest, and opening and closing of navigation), and record the presence of certain species of animals and plants. While the travel journal, for example, is better understood as a narrative form, new tools and procedures can be developed to facilitate reading and aggregate data out of what may appear as anecdotal evidence.

In this pilot project, our objective was to test how XML could be used to mark up spatial, temporal, and environmental information which can be shared, aggregated, and displayed, both for scientific analysis and for public access. We selected texts from the early seventeenth to the mid-eighteenth century,⁶ several of which are related to Niagara Falls, a location frequently mentioned in travel accounts. Excerpts from the selected accounts were transcribed manually because the typography of the period is not fully recognized by OCR software. Places and dates were marked up using TEI P5

¹ Léon Robichaud would like to thank the Network in Canadian History of the Environment for funding this project.

² The authors also thank Rémi Guillemette, Camille Martin, Maryse Cyr and other students who contributed to this project through transcriptions or markup.

³ de Champlain 1930.

⁴ Published by Reuben Gold Thwaites, *Original journals of the Lewis and Clark Expedition, 1804-1806...*, New York, Dodd, 1904, and republished many times since, the latest edition by Gary E. Moulton, *The Journals of the Lewis and Clark Expedition*, University of Nebraska Press, 2002. Several editions are also available online.

⁵ Three recent studies can represent this trend: David Arnold, *Tropics and the Travelling Gaze: India, Landscape and Science, 1800-1856*, Seattle: University of Washington Press, 2006; Laura J. Hollsten, *Knowing Nature: Knowledge of Nature in Seventeenth Century French and English Travel Accounts from the Caribbean*, Abo (Finland) Institutionen for sprak och kulture, Humanistiska fakulteten, 2006; Catherine Armstrong, *Writing North America in the Seventeenth Century. English Representations in Print and Manuscript*, Ashgate, 2007.

⁶ Samuel de Champlain, *Le troisième voyage du sieur de Champlain en l'année 1611*, Paris: 1613; Louis Hennepin, *Description de la Louisiane nouvellement découverte au sud-ouest de la Nouvelle-France, par ordre du roy : avec la carte du pays : les moeurs et la manière de vivre des sauvages; dédiée à sa Majesté*, Paris: 1683. Pierre-François-Xavier Charlevoix, *Journal d'un voyage fait par ordre du roi dans l'Amérique Septentrionale adressé à Madame la Duchesse de Lesdiguières*, Paris: 1744. Jacques Marquette, *Voyage et découverte de quelques pays et nations de l'Amérique septentrionale*, Paris: 1681. John Bartram, *Observations on the inhabitants, climate, soil, rivers, productions, animals, and other matters worthy of notice made by Mr. John Bartram, in his travels from Pensilvania [sic] to Onondago, Oswego and the Lake Ontario, in Canada to which is annex'd a curious account of the cataracts at Niagara by Mr. Peter Kalm, a Swedish gentleman who travelled there*, London: 1751. These documents are available on Canadiana Online <<http://www1.canadiana.org/>> and many other digital libraries.

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guidelines⁷ so that spatial and temporal data could be displayed with Exhibit, a “publishing framework for data-rich interactive web pages”⁸ both on a timeline and on a map (Figure 1). A reader looking for descriptions from a specific time period or for a specific location could then quickly find information.

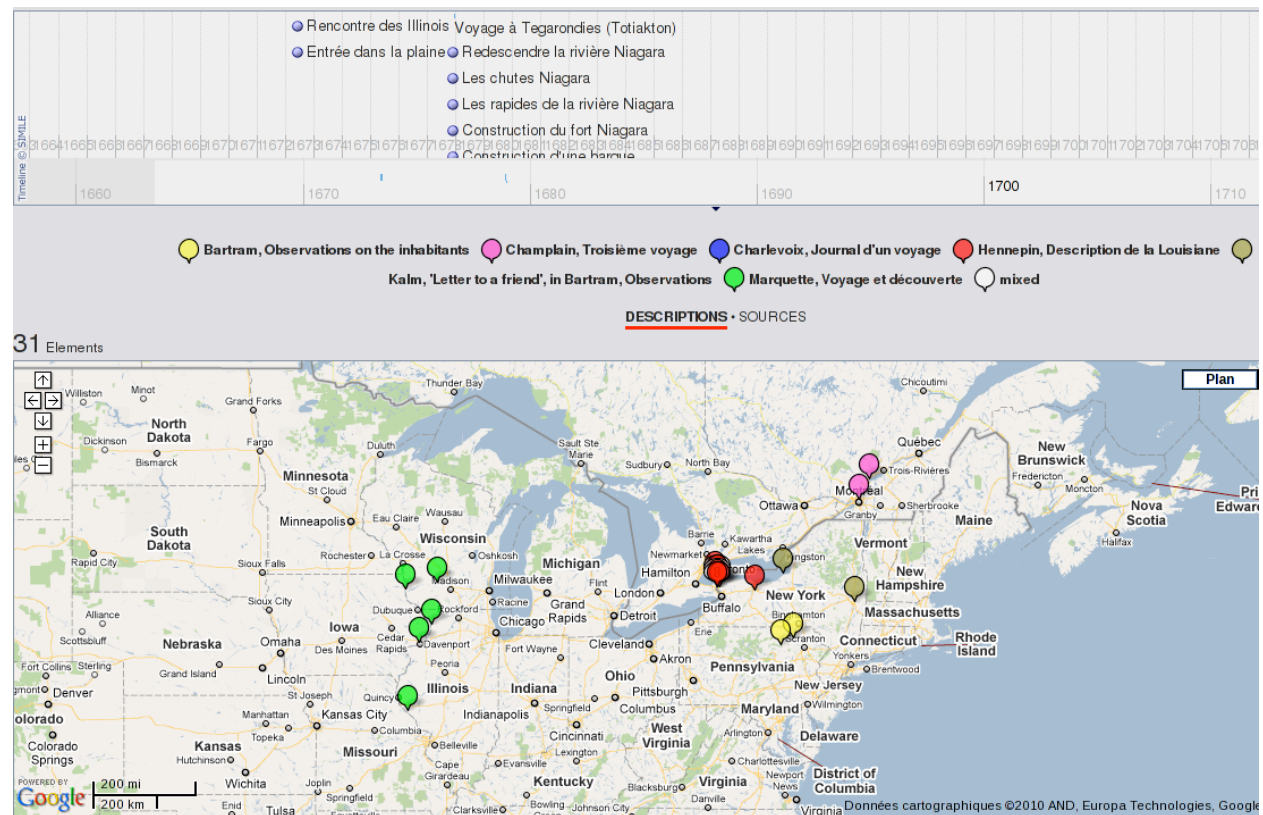


Figure 1. Combined spatial and temporal view of locations described in the selected accounts.⁹

Thanks to the Exhibit framework, the user can click on a location or on a timeline element to read the related text (Figure 2). Both the researcher and the casual reader can therefore quickly access information based upon such basic criteria.

⁷ TEI stands for Text Encoding Initiative. See <http://www.tei-c.org/>.

⁸ Exhibit: Publishing Framework for Data-Rich Interactive Web Pages. <http://www.simile-widgets.org/exhibit/>.

⁹ Travel Accounts Digital Markup Project. <http://pages.usherbrooke.ca/clioweb/guide/>
URL: <http://jdhs.uchicago.edu/>

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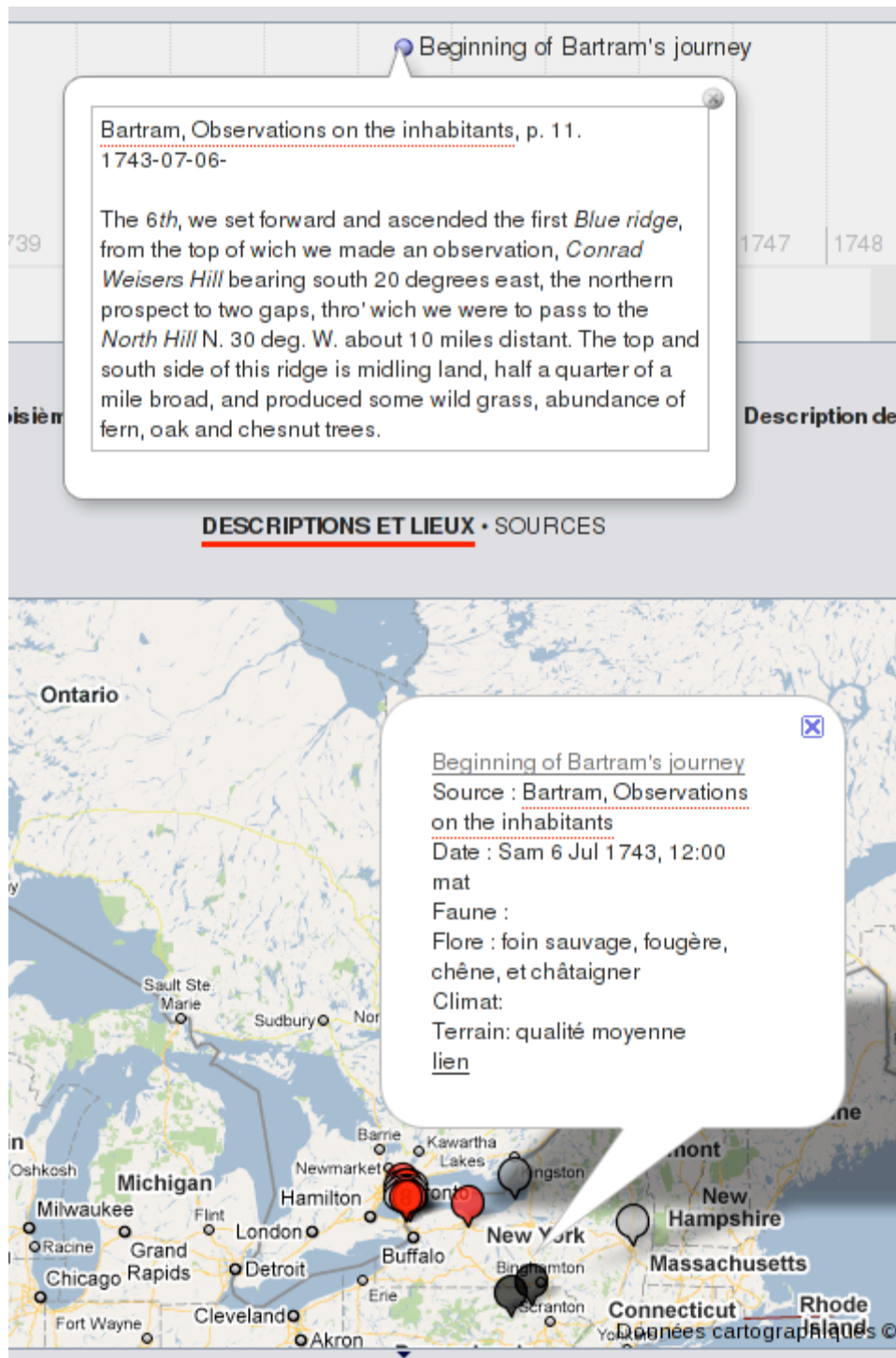


Figure 2. Displaying text related to a location.

A reader can focus on a single author by selecting his name in the list of authors. As a result, only the locations related to that author will appear on the map (Figure 3).

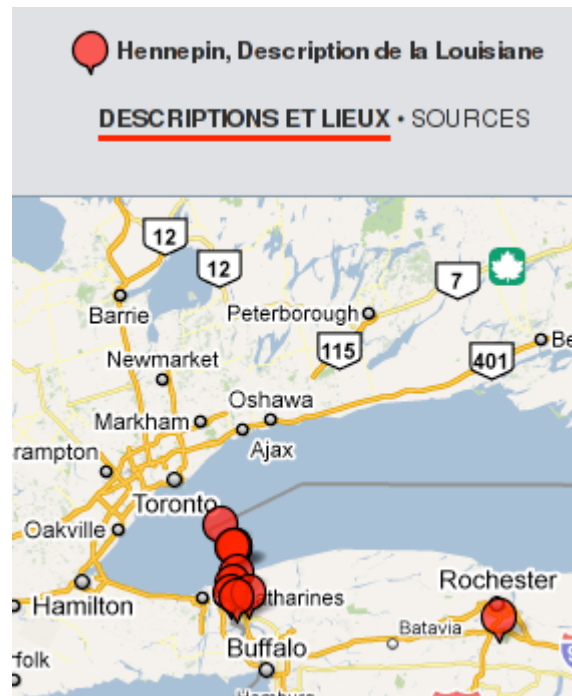


Figure 3. Locations described by Louis Hennepin.

Our markup goes beyond reading of the text since we also marked up information related to fauna and flora (for which tags had to be added to our schema). A user can select an element from the list of animals or the list of plants (Figure 4) to see the locations where they are mentioned.

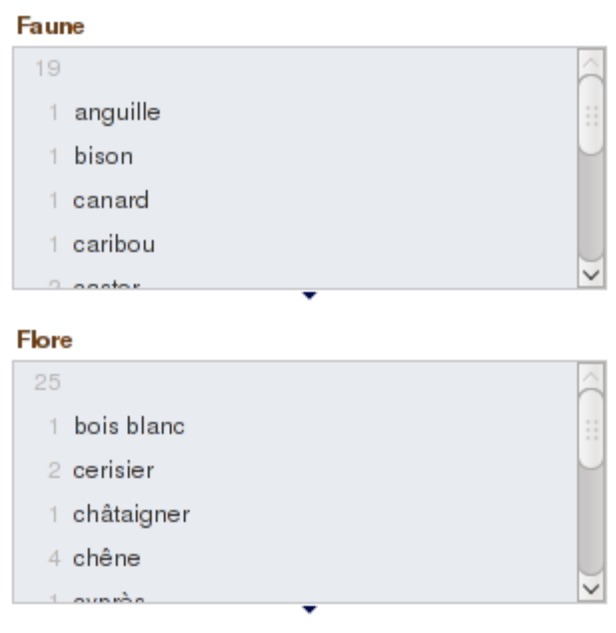


Figure 4. List of elements.

An animal such as a deer appears frequently in the narratives (Figure 5) while bison are only mentioned once in the selected texts (Figure 6, see green marker in the south-west corner).

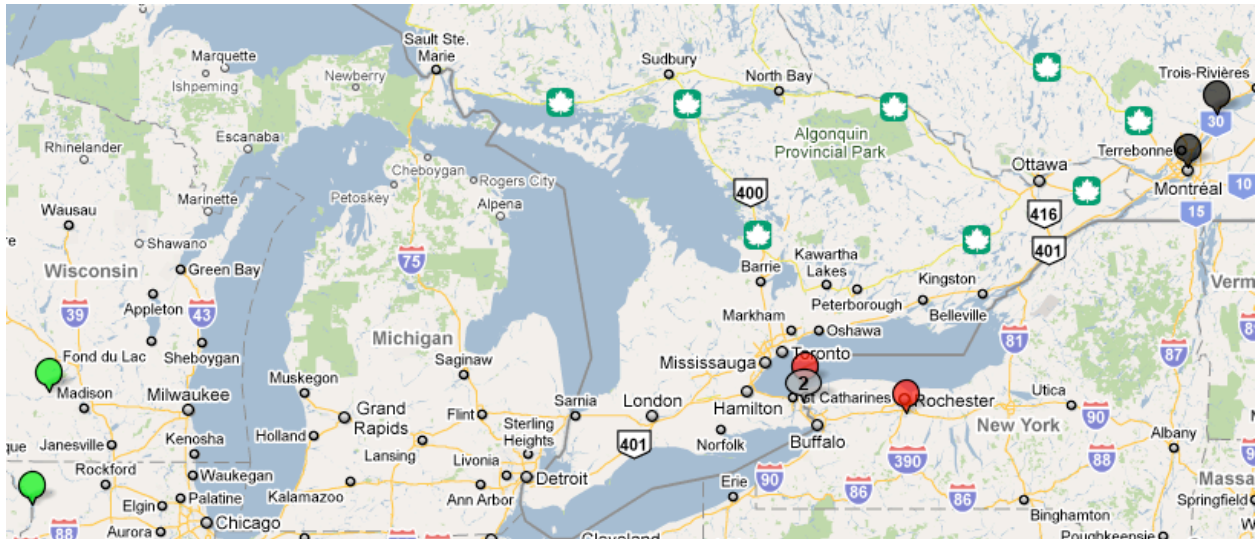


Figure 5. Geographic locations of deer in the selected narratives.

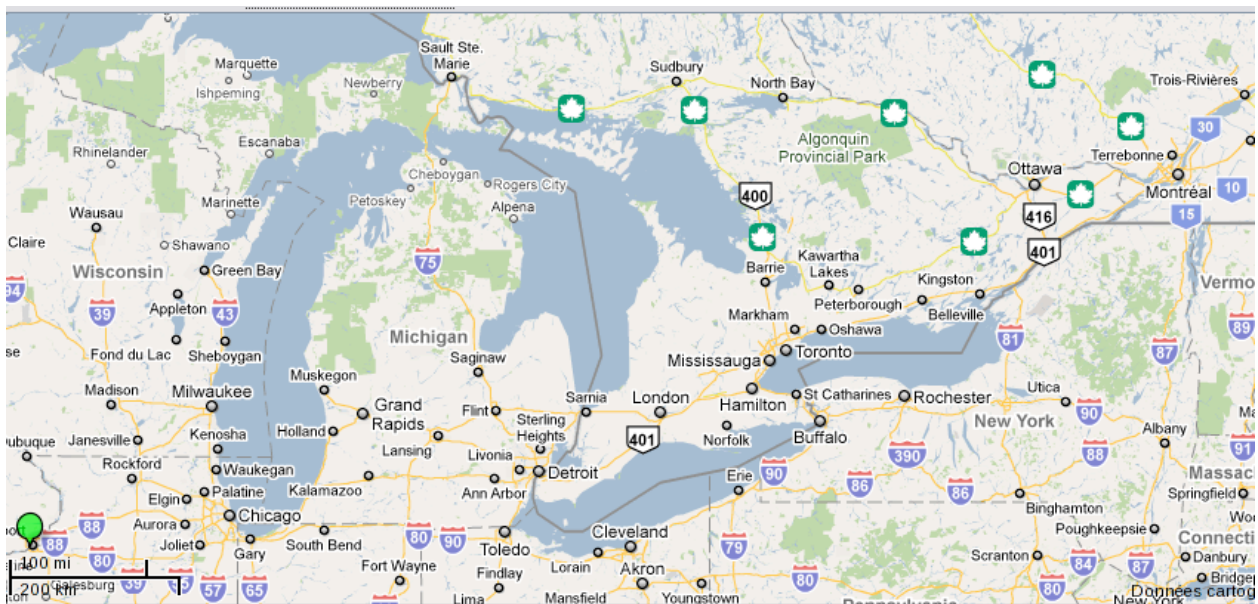


Figure 6. Geographic location of bison in the selected narratives.

To see in what context the animal or the plant was mentioned, the user can click on the marker to view the transcribed text.

On the technical side, there are improvements to be made. The Exhibit framework is still in development, which means that future enhancements will provide an even more interactive platform with which we can display information. For example, we will be able to easily trace an author's route¹⁰ and we will be able to delineate the area being described from a hilltop as opposed to simply indicating the point where the author was standing.

The markup process, which has become a part of many medievalists' and classicists' daily life, has not entered the world of early modern social historians who still rely on relational databases. As a

¹⁰ Tracing a route is obviously already available in Google Maps and is currently being integrated in the Exhibit API.

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result, I have created a wiki to document our transcription and markup experience so that others may benefit from this experience. Temporarily hosted at <http://www.remparts.info/guidexml/>, this guide provides an introduction to XML and TEI for the non-initiated and some thoughts on our various experiments as we advanced through this project.

This pilot project demonstrates the potential and the limits of this source material in the creation of a large-scale aggregated corpus of travel accounts to study the environment in time and space. Travel narratives are not as standardized as the Royal Navy logbooks used in the CORRAL Project.¹¹ As a form of literature, they tend to emphasize the exotic at the expense of the common. For example, while squirrels are extremely common throughout the regions described, only one author mentions them because he had to eat a few.¹² Such narratives which enhance exotic experiences must therefore be counterbalanced with natural histories, accounts by botanists such as Pehr Kalm, and native accounts. An author interested in the fur trade will not have the same focus as one who is looking for certain types of wood, one who is promoting agricultural development, or one who is participating in the scientific classification of species. As a result, source analysis will remain, as it always is, an essential component of such a process.

Despite the limitations of individual sources, the aggregation of information can document the evolution of our environment and provide a comparison basis with non-documentary data (archeology and tree rings) for some regions, or original information for other regions. A broad array of sources can complement travel or scientific narratives. T. Wien has successfully analyzed sources such as temperature records kept by doctors and court calendars to understand the growing season and the sequence of agricultural work in New France.¹³ Port records and correspondence between Canada and Europe inform us as to the opening and closing of navigation. Despite their optimistic nature, immigrant guides can also provide information on specific frontier regions. Farmers' almanacs could be an interesting source, not for their predictions, but for the evolution of the agricultural calendar that they propose. Without one relatively standard source such as naval logbooks, it is even more important to develop common practices to mark up and share this data across projects.

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¹¹ CORRAL is the UK Colonial Registers and Royal Navy Logbooks project. <http://www.corral.org.uk/>.

¹² "...comme nous n'avions que quelques petits sacs de blé d'Inde roti, nous trouvâmes chemin faisant des Iroquois en chasse, qui nous donnerent du chevreuil, & quinze à seize Ecurieux noirs tres-bons à manger", which can be roughly translated as "...given that we only had a few small bags of roasted maize, we found on our route some Iroquois who were hunting and who gave us some deer and fifteen or sixteen black squirrels which were very good to eat." Hennepin, *Description de la Louisiane*: 33.

¹³ Wein 1990.

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