

Geologic Site of the Month
January, 2002

The Riggsville Pothole, Georgetown Island, Maine



43 51' 5.63" N, 69 44' 22.74" W

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Introduction

In our site on [Maine Geology at the Smithsonian Institution](#), we presented examples of Maine geological and mineralogical specimens from the Smithsonian Institution's National Museum of Natural History. One of those specimens, the Riggsville Pothole, is featured here because of its unusual collection history.

The Riggsville Pothole was located in the village of Robinhood, on Georgetown Island, along the shore of Campbells Cove. Robinhood was formerly known as [Riggsville](#) (located on the west margin of this 1893 topo map just below the "W" in the township name Georgetown). According to local history, a summer resident with clout convinced the state legislature to change the village name from Riggsville to Robinhood in honor of the Indian Sagamore Mohotiwormet, also known to the early settlers as Robin Hood. Mohotiwormet signed several deeds for land purchases in the region in the mid- to late-1600's.



Potholes

There are several potholes in the region, and they were first examined and measured by George H. Stone in 1879 (Stone, 1899). Later, P. C. Manning (1901) found similar potholes in several other of the islands in the area (Figure 1). The potholes were formed when the region was covered by the last great ice sheet prior to the current interglacial episode in which we live.



Photo courtesy of Gene Reynolds

Figure 1. A large-diameter pothole on the shore of Georgetown Island, similar to the Riggsville Pothole



Potholes

Similar in origin to potholes seen in modern rivers (Figure 2), the distinction of the Riggsville potholes is that they were carved in the bedrock by meltwater streams beneath the glacier, highly charged with coarse sediment. Stones accumulating in the pothole are swirled around by the flowing water, mechanically eroding the solid rock and rounding and smoothing the cavity.

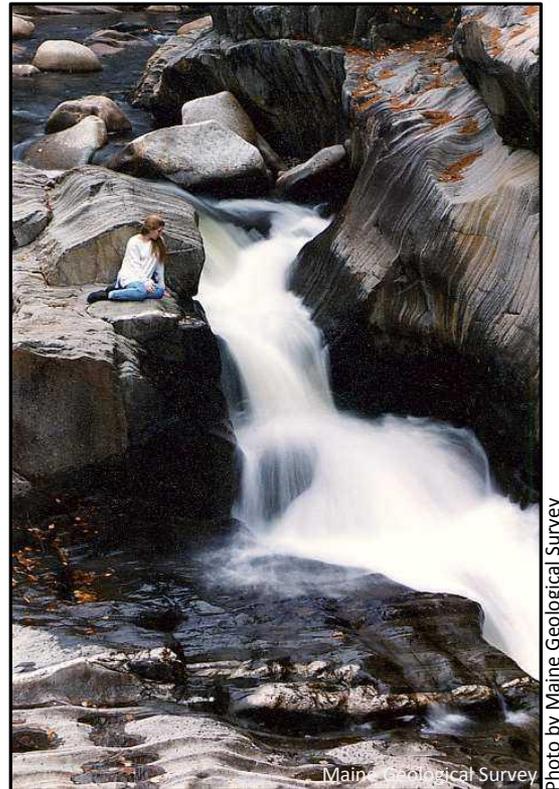
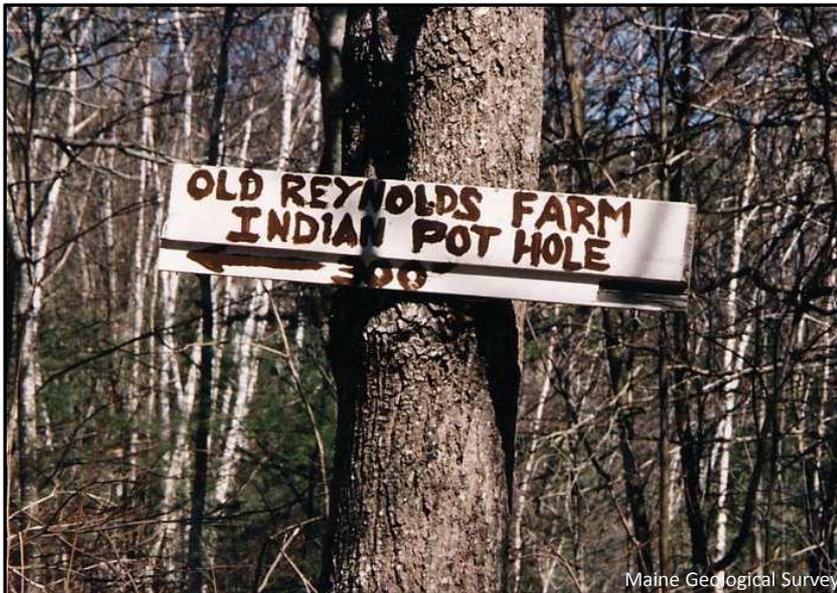


Figure 2. Potholes, Coos Canyon Falls on the Swift River, Byron, Maine. Erosion by the Swift River shows distinctive bedding in the metamorphic rock.

Potholes

The early settlers of the region aware of the potholes referred to them as well holes, cooking kettles, Indian mortars, and Indian ovens (Figure 3), and some thought that they were made by the Indians (Manning, 1901). The many prehistoric shell middens in the area may have contributed to the interpretation that the potholes were cooking utensils of the original inhabitants.



Photos by Maine Geological Survey



Figure 3. Sign for Indian Pothole and a filled pothole located on upland hill.

Potholes

In April of 1885, Manning received a letter from Dr. George P. Merrill, Head Curator of Geology at the National Museum (Smithsonian Institution) at Washington

"desiring to know if there were any glacial pot-holes of such size and so located that it would be possible to remove them without too great an outlay of time and money. Upon consultation.... it was thought the one at Campbell's Cove offered the best chance of success, it being situated on the edge of a sea wall that would form one face of the block which it would be necessary to cut out.It was not until 1892 however, that conditions favored the attempt, when the oversight was entrusted to Dr. O. C. Farrington of the Museum. Some idea of the labor involved may be formed by stating that it required the drilling of seventy-five vertical holes four feet deep on three sides of the pothole with a steam drill, besides the horizontal drilling by hand underneath in order to remove the block from its place. Considerable preliminary drilling and blasting were also needed to remove the overhanging rock which interfered with the working of the steam drill. Although somewhat shattered by the jar of the blasting, the injury was easily remedied by a little cement. It was lifted onto a scow and towed to Bath where it was transferred to a platform car. When ready for shipment the block weighed about four thousand pounds. It was safely landed in Washington, and now forms one of the most striking and interesting specimens in the department".

(Manning, 1901)



Glacial Pothole

In a letter to the Maine Geological Survey dated February 23, 2000, Leslie J. Hale, Collection Manager, National Rock and Ore Collections, Smithsonian Institution National Museum of Natural History, provided the following information. The specimen Accession Number is 27079 and was accessioned on June 19, 1893 as a "glacial pothole," collected by O. C. Farrington. It is catalog number 60880 in the Rock Collection, and is currently on display in the new Rocks Gallery as "Gneiss with Pothole, Georgetown, Maine" (Figure 4).

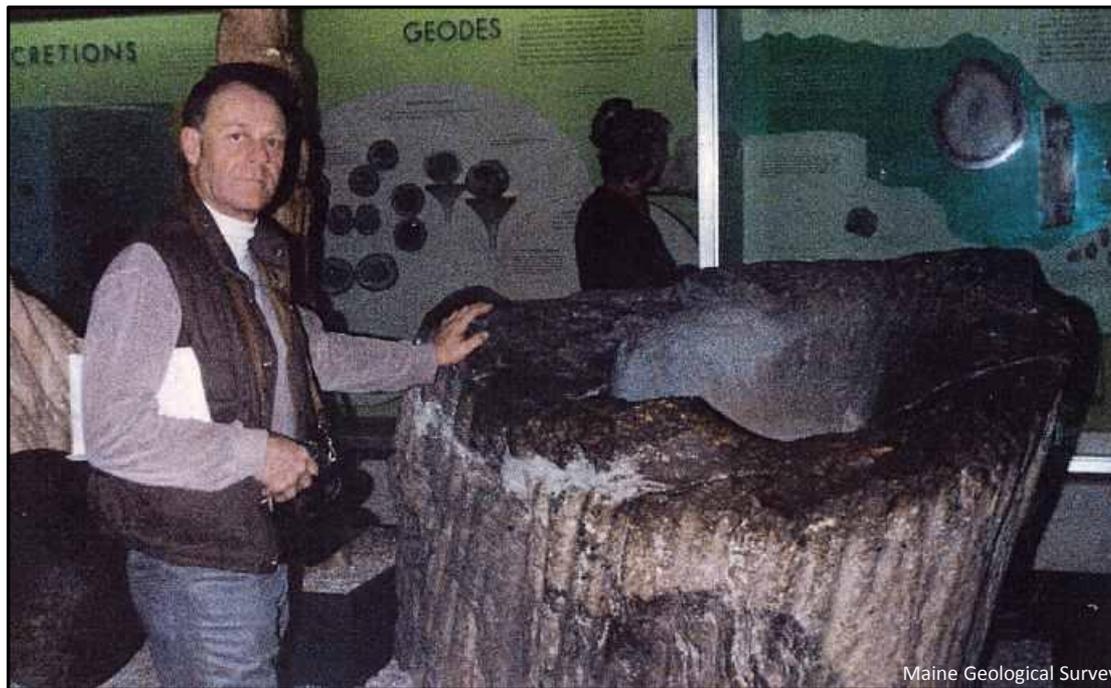


Figure 4. The Riggsville Pothole at the Smithsonian Institution.

References and Additional Information

Manning, P. C., 1901, Glacial pot-holes in Maine: Proceedings of the Portland Society of Natural History, Volume 2, Part 5, p. 185-201.

Stone, G. H., 1899, The glacial gravels of Maine and their associated deposits: U. S. Geological Survey Monograph 34, 499 p.

Sincere appreciation is extended to Ms. Carolyn Todd and Mr. Gene Reynolds of Georgetown, who shared their knowledge of the pothole and local history, and especially for Mr. Reynolds allowing access to the pothole excavation site.

