

## A Cautionary Note on North American Late-Quaternary Biogeography

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In 2001, the deciduous premolar of a peccary was found in Pleistocene strata of the Hiscock site, western New York State (Laub et al. 1988, Laub 2003a). It proved to be one of the most significant finds of that field season as it belonged to *Mylohyus* sp., a taxon usually associated with more southerly latitudes (Laub 2003b). This small tooth, BMS no. E27500, represents the first and only *Mylohyus* remains reported from New York, and a certain coincidence (below) begs the question: Did this animal actually inhabit western New York?

I am suggesting here a distinction between the *objective* fact that a fossil occurs at a particular site, and the *subjective* inference that its owner lived at or near that site. Few would argue that a rhinoceros herd whose articulated skeletons were found in a bed of Miocene volcanic ash (Voorhies 1985) had not been resident where found. At Hiscock, however, the bones of Pleistocene animals co-occur with Paleoindian artifacts, both lithic (Ellis et al. 2003) and osseous (Tomenchuk 2003), reminding us that in late-Quaternary North American paleontology a new taphonomic agency, humans, must be considered.

Previously, the northernmost occurrences of *Mylohyus* were in southern and eastern Pennsylvania, the nearest to Hiscock being Frankstown Cave in Blair County, and New Paris No. 4 in Bedford County, respectively 300 and 375 km south of Hiscock (FAUNMAP Working Group 1994:432; Kurten & Anderson 1980:296-297). In this regard it is noteworthy that, besides the peccary, there are two archaeological links between Hiscock and southern Pennsylvania. First, in a typological comparison of the Hiscock fluted bifaces with those of major sites in the Northeast, Ellis et al. (2003) found the closest similarity with the Shoop site of Dauphin Co., southeastern Pennsylvania. Shoop lies between the eastern and western *Mylohyus* localities. Second, the Shoop lithic assemblage is predominantly (about 98 percent) made of a variety of Onondaga chert most similar to that from western New York and the Ontario Peninsula (Cox 1986:108; Fogelman 1986:3; Witthoft 1952:471). A major Paleoindian quarry, Divers Lake (Prisch 1976), lies about 30 km from Hiscock. In contrast, fluted-point collections in eastern Pennsylvania are predominantly of Pennsylvania jasper and fine-grained black "flint" from nearby sources (Witthoft 1952:470). While Onondaga chert pebbles occur in Susquehanna River gravels reaching to the Shoop vicinity, the Shoop assemblage displays nodule rather than clastic surfaces (Witthoft 1952:471), and only one Onondaga cobble was found at the site (Fogelman 1986:3). This implies that the source was quarried material rather than erratics (Gramly 1988:267), and this Onondaga connection led both Witthoft and Cox to see a close relationship between Shoop and the western New York region that includes the Hiscock site. It should be noted, however, that not all workers agree with this conclusion. Instead, some view nearby river gravel clastics as the probable provenience of the Shoop lithics (John D. Holland, pers. comm., 2007).

The foregoing attests to Paleoindians as agents for transporting objects across great distances. Haynes (1980:118) observed that 300 km is a common figure cited for maximum distance of Clovis sites from lithic sources. Gramly (1999) found a fluted biface made on North Dakota Knife River chert at the Lamb site in western New York. Haynes (1980) mentioned surface wear on lithics from the Simon site (Idaho) as suggestive of their rubbing against each other while being carried in a bag. So, if Paleoindians introduced exotic lithic material to their sites, is it not likely that they occasionally did the same with animal parts?

There is evidence that Paleoindians attributed importance to some objects. At the Wilsall (Anzick) site, Paleoindian artifacts and a contemporary human

cranium had been ochre-stained (Lahren & Bonnichsen 1974:148; Stafford et al. 1991:54). Apparent ritual breakage of objects in a lithic assemblage has been reported from southern Ontario (Deller and Ellis 2001). North American Indians are known to have carried objects of significance, including bones and teeth, in medicine bags or bundles (e.g., Helm 1981:353, Lowie 1982; Tooker and White 1968), and some continue this practice. Charlie Bourque (pers. comm., 2006), a Northwest Territories Meti, reports that some of his First Nations acquaintances include animal teeth in their medicine bags. The Yukaghir of northeast Siberia similarly carry animal parts in leather bags (Jochelson 1924:146, 164), posing the possibility that this is an ancient Holarctic practice.

My purpose is not to argue that Paleoindians used medicine bags or to attribute to them the practices of more recent people. Rather, I am urging a conservative approach to paleobiogeography where humans may be involved. I will feel more confident about extending the range of *Mylohyus* into western New York when additional specimens are found in this area.

I wish to thank John D. Holland, Marcia Richmond and Megan Hoak (Buffalo Museum of Science), David Parris (New Jersey State Museum), William Fitzhugh (Smithsonian Institution, Dept. of Ethnography) and Amy Henrici (Carnegie Museum of Natural History, Dept. of Vertebrate Paleontology) for their kind help and advice in the course of researching this article. Any errors are, needless to say, the author's.

## References Cited

- Cox, S. L. 1986 A Re-analysis of the Shoop Site. *Archaeology of Eastern North America* 14:101-70.
- Deller, D. B., and C. J. Ellis 2001 Evidence for Late Paleoindian Ritual from the Caradoc Site (Afhj-104), Southwestern Ontario, Canada. *American Antiquity* 66(2):267-84.
- Ellis, C. J., J. Tomenchuk, and J. D. Holland 2003 Typology, Use and Sourcing of the Late Pleistocene Lithic Artifacts from the Hiscock Site. In *The Hiscock Site: Late Pleistocene and Holocene Paleoecology and Archaeology of Western New York State*, edited by R. S. Laub, pp. 221-37. Bulletin of the Buffalo Society of Natural Sciences 37.
- FAUNMAP Working Group 1994 FAUNMAP: A Database Documenting Late Quaternary Distributions of Mammal Species in the United States. *Illinois State Museum Scientific Papers* 25(2).
- Fogelman, G. L. 1986 *Shoop: Pennsylvania's Famous Paleo Site*. Fogelman Publishing Co., Bloomsburg, Pennsylvania.
- Gramly, R. M. 1988 Palaeo-Indian Sites South of Lake Ontario, Western and Central New York State. In *Late Pleistocene and Early Holocene Paleoecology and Archeology of the Eastern Great Lakes Region*, edited by R. S. Laub, N. D. Miller, and D. W. Steadman, pp. 265-80. Bulletin of the Buffalo Society of Natural Sciences 33.
- 1999 *The Lamb Site*. Persimmon Press, Buffalo, New York.
- Haynes, C. V. 1980 The Clovis Culture. *Canadian Journal of Anthropology* 1:115-21.
- Helm, J. 1981 Subarctic. In *Handbook of North American Indians (Vol. 6)*, edited by W. C. Sturtevant. Smithsonian Institution Press, Washington.
- Jochelson, W. 1924 The Yukaghir and the Yukaghirized Tungus. *Memoir of the American Museum of Natural History* 9(2).
- Kurten, B., and E. Anderson 1980 *Pleistocene Mammals of North America*. Columbia University Press, New York.
- Lahren, L., and R. Bonnichsen 1974 Bone Foreshafts from a Clovis Burial in Southwestern Montana. *Science* 186:147-50.
- Laub, R. S. 2003a The Hiscock Site: Structure, Stratigraphy and Chronology. In *The Hiscock Site:*

*Late Pleistocene and Holocene Paleocology and Archaeology of Western New York State*, edited by R. S. Laub, pp. 18–38. *Bulletin of the Buffalo Society of Natural Sciences* 37.

——— 2003b The Pleistocene Fauna of the Hiscock Site. In *The Hiscock Site: Late Pleistocene and Holocene Paleocology and Archaeology of Western New York State*, edited by R. S. Laub, pp. 69–82. *Bulletin of the Buffalo Society of Natural Sciences* 37.

Laub, R. S., M. F. DeRemer, C. A. Dufort, and W. L. Parsons 1988 The Hiscock Site: A Rich Late Quaternary Locality in Western New York State. In *Late Pleistocene and Early Holocene Paleocology and Archeology of the Eastern Great Lakes Region*, edited by R. S. Laub, N. G. Miller, and D. W. Steadman, pp. 67–81. *Bulletin of the Buffalo Society of Natural Sciences* 33.

Lowie, R. H. 1982 *Indians of the Plains*. University of Nebraska Press, Lincoln.

Prisch, B. C. 1976 The Divers Lake Quarry Site, Genesee County, New York. *The Bulletin (New York State Archaeological Association)* 66:8–18.

Stafford, T. W., Jr., P. E. Hare, L. Currie, A. J. T. Jull, and D. J. Donahue 1991 Accelerator Radiocarbon Dating at the Molecular Level. *Journal of Archaeological Science* 18:35–72.

Tomenchuk, J. 2003 Analysis of Pleistocene Bone Artifacts from the Hiscock Site. In *The Hiscock Site: Late Pleistocene and Holocene Paleocology and Archaeology of Western New York State*, edited by R. S. Laub, pp. 238–60. *Bulletin of the Buffalo Society of Natural Sciences* 37.

Tooker, E., and M. E. White 1968 Archaeological Evidence of Seventeenth Century Iroquoian Dream Fulfillment Rituals. *Pennsylvania Archaeologist* 34(3-4):1–5.

Voorhies, M. R. 1985 A Miocene Rhinoceros Herd Buried in Volcanic Ash. *Research Reports of the National Geographic Society* 19:671–88.

Witthoft, J. 1952 A Paleo-Indian Site in Eastern Pennsylvania: An Early Hunting Culture. *Proceedings of the American Philosophical Society* 96(4):464–95.