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# Collective Memory of the Prehistoric Past and the Archaeological Landscape

Cynthia J. Wiley

*Abstract: The crossroads of archaeological investigation and indigenous oral tradition are ripe with potential for increased interaction between archaeologists and Native Americans. This interaction may become increasingly mandated in the future as NAGPRA affects excavations and material culture collections. Currently this body of information is not being fully utilized. However, as examples of chronologically lengthy prehistoric memory develop, including myths and traditions related to Pleistocene mammals, archaeologists must be prepared to incorporate this information into research designs and interpretations. Strong (1934) and Echo-Hawk (2000) provide a way to critique and organize oral tradition for analysis. Archaeologists must build on this foundation to create a methodology that will allow us to systematically examine oral tradition and incorporate it into interpretations. Recognizing and synthesizing memories of the prehistoric past has the potential to inform mobility studies by changing the way archaeologists ask questions about past movements.*

## *Introduction*

Using time perspectivism in archaeology requires researchers to understand that time is not a static, monotypic concept, but works on the level of several scales that often interact with each other. One of these time scales is memory. Memory operates on a scale independent of environmental or calendrical time (i.e. memories do not expire after a specific amount of time, nor are the specifically linked to environmental cycles) and can be difficult to perceive in material culture. Research on the length of collective memory through oral history and language to map important resources has the potential to inform mobility theories for past hunter-gatherer groups. Through

further investigation into prehistoric memory<sup>2</sup>, archaeologists may begin to move beyond questions of why and where people move on the landscape to *how* people moved and interacted on the landscape. Memories establish the guidelines by which individuals and groups of people live their daily lives. Good memories can remind us of friendly, helpful people, and bad memories may warn us who not to trust. The adaptive qualities of memories have contributed to the survival of humans throughout time. Recollection of resources and their locations, among other knowledge, is crucial for daily existence to the present. However, time does not operate in a unilinear fashion, always moving straight forward with a sense of progression. Instead, time is composed of various scales, operating at different rates (Bailey 2007). Some scales are long term (i.e. geologic epochs) and others are of a shorter duration, such as historical eras (Knapp 1992). Collective memory, passed between generations, is one scale, detached from any calendrical parameters and operating outside the perception of both analytical/objective time and experiential/subjective time (Hull 2005). It is often placed among scales of shorter duration, believed to die within a few generations or even a lifetime, but collective memory can operate on a long-term scale. From this point, the use of the term “memory” refers to collective memory passed between generations rather than belonging to a single individual. “Memory is a perpetually actual phenomenon, a bond tying us to the eternal present” (Nora 1989:8).

However, memory has rarely been seen as an archaeological tool for the investigation of the prehistoric past. Archaeologists tend to study systems, styles, and processes. Through landscape archaeology, researchers are beginning to place people on the landscape, but there remain few mechanisms for understanding movement beyond responses to environmental and population pressures. The next step in archaeology and mobility studies needs to be not *where* and *why* people moved, but *how*? How did people know where to gather resources? How did groups decide to leave an area for an extended period of time? How did they know where to go?

I argue that clues to these answers may be available by looking at prehistoric memory. Similar to current times, humans use memories to navigate their surroundings; it is reasonable to assume that prehistoric peoples did the same. To begin to understand the role of

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<sup>2</sup> The term “prehistoric memory” is used in the same sense as “prehistoric archaeology” – to denote a specific portion of the past and not to imply a sense of primitiveness or inferiority of these memories.

memory in the distant past, archaeologists need to examine oral history, language, and mnemonic devices on the landscape (i.e. how did people map onto their environment?). In the early to mid twentieth century, archaeologists and anthropologists were actively seeking links between indigenous traditions/myths and physical evidence. New Archaeology brought an emphasis on processes and empirical evidence that was “hypercritical” (Knapp 1992:2) and pushed such research into the background. However, investigations into the function of rock art as maps or guides and modified features of the landscape as resource markers are more recent steps toward accessing the way knowledge was transmitted in the past (Potter 2004; Smith and McNees 1999). Archaeologists should use this opportunity to go a step further, toward an understanding of the connection between prehistoric memory and movement on the landscape. This understanding is necessary before a methodology can be formed and prehistoric memory can once again be incorporated into archaeological research designs.

#### *Memory and Oral History – Assessing the Length of Memory*

In order for memory to fit into current archaeological paradigms with all of the accompanying empirical demands, researchers must first establish the potential length of memory. Memories can be elusive and vague in one’s own lifetime, and critics are right to be skeptical of accessing prehistoric memory. The difficulty of resolution that keeps archaeologists from accessing the individual in the material record also keeps them from assessing individual memory; only collective memory is retained through the generations as successive storytellers make modifications (not unlike the parlor game “telephone”). Vestiges of prehistoric memory remain in oral tradition – stories that have been passed down orally from one generation to another with some variation and change over time.

Archaeologists need to incorporate Native American oral literature into their research designs and be open to finding correlations between Native literature and material evidence – to treating oral tradition as a valid way of transmitting past events over a long period of time rather than as whimsical stories (Echo-Hawk 2000). Connecting the calendrical scale of radiocarbon dates and physical evidence of events to oral or recorded descriptions of such occasions not only has the potential to advance archaeological understanding of the past, but also answers Echo-Hawk’s call for archaeologists to incorporate oral tradition into their interpretations, in order to further what he calls “ancient Indian history” (1997:101-102).

Echo-Hawk (1997) notes that, while scholars have been interested in the juncture of oral tradition and past events or environments, this has not been viewed as a viable source of information beyond more than a few hundred years in the past. However, the possibilities of this juncture were highlighted in the early 1990s through the inclusion of oral tradition as a valid form of information in determining cultural affiliation for the Native American Grave Protection and Repatriation Act (NAGPRA) (Echo-Hawk 1997, 2000). Folklorists believe that current evidence supports the possible oral transmission of memory and information for several millennia (Echo-Hawk 1997). Through examinations of oral tradition, Echo-Hawk has identified:

[M]emories of Arctic Circle patterns of solar behavior, the transition (from the perspective of settlers moving southward) to lower latitude diurnal/nocturnal cycles, descriptions of permafrost thawing/freezing patterns, Pleistocene weather phenomena involving powerful atmospheric disturbances, discussions of European and New World glacial ice sheets, Pleistocene sea level changes, human relationships with New World megafauna, memories of the initiation of complex intergeneration social settings, references to glacial lakes, and the onset of Holocene seasonality [Echo-Hawk 1997:91].

If Echo-Hawk's investigations are correct, then the length of oral tradition, and therefore memories contained within oral tradition, hold important clues beyond the prehistoric – historic barrier.

Echo-Hawk (1997) has also addressed the issue of memory's vague and malleable nature, but argues against the faith-based acceptance of oral evidence over empirically based corollary evidence. He emphasizes that oral tradition must be supported by and connected to archaeological information in order to be useful (Echo-Hawk 1997, 2000). Established archaeological models cannot be superceded on the basis of oral tradition alone; nor can new hypotheses of past processes be formulated on the basis of oral tradition without substantiating evidence (Echo-Hawk 2000). Therefore, archaeologists may be freed from the tyrannical preoccupation with radiocarbon dating without discarding it (see Bailey 1983). Instead, archaeologists can use memory to look at the transmission of culture on a scale independent of

calibrated calendrical dates and typological artifact classifications (e.g. do people remember a particular event, animal, tool, etc. regardless of the radiocarbon dates currently associated with it.

Oral tradition and memory also have an advantage over applications of ethnography often used by archaeologists. Ethnographic information gathered on modern groups and applied to past individuals represents a form of uniformitarianism, assuming that the same processes and behaviors operating today also operated in the past and the past can therefore be explained in terms of present processes (Bailey 1983:174). There is no analogy in the ethnographic record for the long-term processes of change examined in archaeology (Smith 1992). Knapp (1992:1) asserts that “[a]nyone involved in the study of the past realizes that it is difficult to relate our own ideas about the past to ideas actually held in the past”. Prehistoric memory has no need to be an analogy for long-term processes because it *is* a long-term process. Memory operates on a scale that can both withstand, and bend with, the influence of other time scales. Because of this, archaeologists must be careful when extracting prehistoric memory from oral traditions to ensure that they are not improperly distorted by perceptions of other time scales.

### Varieties of Oral Tradition

As early as 1878, researchers were aware of the “elephant problem” in America, where indigenous oral tradition suggested knowledge of mammoths prior to absolute dating methods and archaeological evidence that would establish the contemporaneity of humans and mammoths (Strong 1934). Strong (1934) identifies two forms of oral tradition: myths of observation and myths of historical traditions. The former classification recognizes that indigenous people of any calendrical period also have the ability to uncover fossil remains of past peoples, creatures and cultures, whether or not they recognize the taxon of the fossil (e.g. the *Homo erectus* “dragon bones” in Zhoukoudian, China, see Boaz and Ciochon 2004). Strong (1934:81) recognizes that “being based in part on actual phenomena, [myths of observation] are often very puzzling as to the modicum of truth they do contain.” In contrast, myths of historical tradition suggest that past peoples had knowledge of the living animal and some of its behavioral or non-fossilized characteristics. The knowledge of behavioral and living characteristics may no longer be complete or clear – it is the suggestion of such that distinguishes myths of observation from those of historical traditions (Strong 1934). Therefore, it is necessary to

consider the age of the oral tradition's collection to avoid potential contamination.

To illustrate the use Strong's criteria, various myths among the Inuit Eskimo of Alaska and Canada, as well as many indigenous Siberians including the Samoyed, Ostyak, Tungus, Buriat, and Yakut, describe the buried bones of mastodons and mammoths (frequently encountered by these peoples) as those of burrowing animals (Strong 1934:82). Archaeological and paleontological evidence obviously does not concur and the myths do not suggest any knowledge of living characteristics, therefore Strong (1934) classifies this as a myth of observation. On the other hand, a narrative collected by Strong (1934:84) from the Naskapi, an Algonquin tribe living in Labrador at the time, speaks of a monster with large, round footprints, "a big head, large ears and teeth, and a long nose" and was very large overall. These characteristics could not be solely observed from fossilized remains, indicating that a prehistoric memory persists and is contained in this oral narrative – making it a myth of historical traditions.

More recently, Echo-Hawk (2000:272) has suggested three different types of oral narrative. The first category is those stories created to serve an entertainment or other non-historical purpose. A second type is an uncouched and complete set of information about prehistoric occurrences and processes that have been passed on through the generations. The final category includes non-fictional information that has been placed within a fictive or malleable context (Echo-Hawk 2000). Oral traditions created as entertainment are not likely to be useful to archaeologists because they were not created to contain important collective knowledge and are told in a highly malleable context, although they may tell of past social customs and be useful in a non-material manner. Stark and unornamented accounts are unlikely to pass through generations over a long time span due to natural mistakes and changes made during the transmission of information. The best candidate for prehistoric memory is non-fictional information residing within a possibly fictive context that may be modified while still transmitting the information (Echo-Hawk 2000).

Strong (1934) and Echo-Hawk (2000) have created categories and distinctions that separate oral tradition into those that may be of use to understanding the past through correlation with archaeological evidence, and those narratives that remain culturally important to the Native people without contributing to the archaeological record. This is crucial for archaeologists who see the need for the integration of oral tradition. A proto-methodology that allows researchers to separate out the potentially relevant myths also addresses criticisms by stalwart

empiricists. Strong's (1934) designations, in particular, address the issue of wading through details that are vague or imprecise. If past or current peoples could observe related details only in a living, breathing creature, the stories are not likely to be the result of amateur archaeological excavations by indigenous peoples, but rather the remnants of prehistoric memories.

### Memories of the Pleistocene

Beck (1972) has examined connections between various Northeastern Algonquian stories of a giant beaver that escaped the diminution process (executed by the culture hero, Gluskap) and was chased through the landscape. At least five different peoples in the area transmitted the narrative of Gluskap and the giant beaver, although the landscape of the adventure was modified to match the traditional territory of the tribe (Beck 1972). This indicates that each group was not only mapping onto the landscape through landmarks such as boulders, islands, and water features, but that they shared a common experience, a common memory. The territory and physical description of the giant beaver of myth roughly corresponds to the distribution and attributes of *Castoroides ohioensis* – the largest rodent ever found in North America (Beck 1972). The giant beaver went extinct approximately 10-15,000 years ago, and it weighed up to 200 kilograms, the size of a small black bear (Stuart-Williams and Schwarcz 1997).

A sacred myth circulated among the Osage Indians tells of “large and monstrous beasts” migrating along the Mississippi and Missouri rivers from the east to the bluffs known as Rocky Ridge, where they met the angered previous animal occupants and fought a fatal battle against the resident beasts (Montagu 1944:570). The location where the Great Spirit buried the migrating beasts correlates to an 1838 excavation of mastodon bones by Albert Koch (Montagu 1944). The American Mastodon (*Mammuth americanum*) died out approximately 10-11,000 years ago during the late Pleistocene extinctions (Grayson and Meltzer 2003). Koch was aware of the local traditions and mentioned them in his original report of the “Missouri Leviathan” and Montagu supports the suggestion that the Osage myth was an inherited memory of a long extinct, but real mammal (Montagu 1944). It is questionable if this narrative qualifies as a myth of historical traditions or of observations, as the Osage named the local river “Big Bone River”, indicating there may be no memory of the



living beasts. However, Montagu (1944) did not necessarily include the entire length of the myth for public consideration.

Archaeologists must also be attentive to the language used in oral tradition and other speech. The Lakota language currently has words for the three-toed horse and the woolly rhinoceros, among other Pleistocene mammals (Albert M. LeBeau, III, personal communication 2007). The continued presence of such words suggests that they were necessary at one time and that they are actively maintained within the language. Did stories about these Pleistocene creatures carry down through the generations, with the language to tell the stories outliving the actual narratives? This example suggests that words contained in a vocabulary for extinct features of the landscape (including animals) may also demonstrate prehistoric memory. Research will support this proposition particularly if words representing Pleistocene mammals or other words related solely to components of a long past culture are found in association with specific oral histories or traditions.

### *Assessing the Length of Memory*

No research exists to support the idea of limits on verbal memory or information transmission (Echo-Hawk 2000). Apparent connections between Pleistocene animals and Native oral traditions suggest that memory has a substantial time depth, beyond the historical era, and likely on the order of millenia (Echo-Hawk 1997). Hull (2005) attempted to plumb the depth of the scale of experience (oral tradition) through archaeological remains in the Yosemite Valley of California. She examined short-term cycles within longer demographic and environmental trends, and compared the results to oral traditions collected from local indigenous populations (Hull 2005). Problems exist in the results, particularly due to a number of proxy variables that were not clearly defined and a lack of information about the utilized oral traditions – the narratives were not critiqued as to their reliability (*sensu* Strong 1934, Echo-Hawk 2000). However, Hull's (2005) attempt to examine demographic and environmental processes, through both long-term and short-term scales, as well as probe the duration of oral tradition, is an important step toward the integration of new understandings of both time and memory in archaeology.

Archaeology may be able to better access the intersection of archaeology and oral tradition through migration myths. Ethnographers have recorded numerous stories from Native populations delineating how the people came to be where they were when encountered by colonial forces. Archaeologists are more comfortable incorporating

oral narratives that are not classified as origin or creation myths, as these are seen as the purview of indigenous religious leaders (Echo-Hawk 1997). However, Echo-Hawk (2000) includes these narrative types within the category of migration myths. He cautions against restricting migration myths to explaining the movements of static, bounded groups that did not drastically change in composition through the duration of the narrative.

Echo-Hawk (2000) uses Arikara origin and migration myths to demonstrate the usefulness of these narratives. The disparate geographic settings he discusses indicate a long migration through many areas. Through examinations of the details and descriptions, paired with correlations to the archaeological record and geographic features, Echo-Hawk (2000) describes a migration myth(s), that tells of the Arikara ancestors passing through Beringia, encountering the post-glacial lakes of the Great Basin, passing the Grand Canyon, living in the mountains while foraging onto the Great Plains, and finally, a moving onto the Central Plains. Included in the narratives are descriptions of peoples splitting off from the group and scattering; this is consistent with other narratives and material associated with Great Basin and Mountain groups (Echo-Hawk 2000).

Oral tradition and archaeological sites amenable to absolute dating place archaeologists in an excellent position to begin assessing the length of memory. Echo-Hawk (1997, 2000), Beck (1972), and Montagu (1944) demonstrate that vestiges of memory can be traced to the Pleistocene. Hull (2005) attempted to quantifiably demonstrate the length of memory in the Yosemite Valley, but the results were unsatisfactory. This suggests that archaeologists may need to be content with correlating the upper limits of memory to the Beringia crossing in an attempt to cross-reference time scales. However, this serves the purpose of demonstrating not only the deep time depth of prehistoric memory, but also the importance oral tradition can play in archaeology.

### *Mapping On – Mnemonic Devices on the Landscape*

Oral tradition is not the only way of preserving prehistoric memory. Mnemonic devices on the landscape may be necessary not only to transmit those memories, but also to prompt specific and important details within oral tradition so that they continue to be transmitted through time. Ingold (1993) has argued that the landscape must be seen in terms of a collection of activities, events, and stories that defined the lives of those who lived within it, therefore leaving a

piece of themselves behind. The pieces of individuals may be seen in the prehistoric memories – the place names, the rock art, and other physical mnemonic devices that remained for the following generations. Descending generations may have changed or contributed to the mnemonics, perhaps rendering the meaning vague (Echo-Hawk 1997). Nonetheless, physical markers remained to assist the mapping-on of people's minds.

There is a tradition of geographical research (e.g. Gould and White 1974) which sets out from the premise that we are all cartographers in our daily lives, and that we use our bodies as the surveyor uses his instruments, to register a sensory input from multiple points of observation, which is then processed by our intelligence into an image which we carry around with us, like a map in our hands, wherever we go [Ingold 1993:155].

All maps require markers – mnemonic devices are simply ways of making one's mental image of the landscape. Due to time and space constraints, these markers cannot be fully explored here. Literature on rock art and its meaning on the landscape is a prominent topic in archaeology (for example, see Taçon 1999 on Australian Aboriginal artwork). However, these figures must not only be examined for how people have mapped onto the landscape in a physical sense, but also how the drawings and schematics relate to resources or visually relate memories of resource location. Their visible presence on the landscape must be integrated into oral tradition studies and mobility studies, in a similar vein to Berkes et al.'s (2000) promotion of the reintegration of traditional knowledge such as agroforestry into resource management. Mnemonic devices may have assisted the transmission of memory, teaching subsequent generations about the landscape.

Place names also have the potential to inform the archaeological record through prehistoric memory. In Montagu's (1944) account of indigenous oral traditions regarding the American mastodon, the Osage Indians named their local water source the "Big Bone River," describing the fossilized bones that were recovered there over generations. In Beck's (1972) narrative of the Northeastern Algonquian culture-hero, Gluskap was used by local peoples to map onto the landscape with oral tradition. Among the groups with the Gluskap/giant beaver myth, the landscape within the myth was adjusted

with each group to match their particular physical environment and territory (Beck 1972). At one time myths may also have provided place names, or ways of referring to physical features (e.g. the islands created when Gluskap threw his snowshoes at the giant beaver). The mental map of landmarks created and transmitted through oral traditions may have assisted with short-range movement on the landscape and provided an estimate of distances to aid longer-range movements as well. Place names or referenced landmarks could also have been associated with resource extraction, providing a way to mentally plan a route for embedded or logistical forays (Binford 1979).

### *Implications for Archaeological Research*

Ingold (1993) argues that all peoples are constantly constructing points of reference – i.e. collective memories of our surroundings and interactions. Hunter-gatherer mobility studies use lithics and faunal remains among other artifact classifications to examine where people were moving to and from on the landscape for resource extraction. Environmental studies, models, and reconstructions are also used to access why substantial changes in mobility patterns may have occurred at specific times. Mobility is often considered to be the result of following seasonal migrations of focal animals for subsistence strategies (Binford 1983). Nonetheless, the question of *how* people move on the landscape has not often been addressed.

How did people know where to move on the vast landscape that lay before them? Binford (1983) has described in detail how the Nunamiut Eskimo have mapped onto their landscape and resources and visit camps in seasonal rounds. However, oral tradition may have had a role in the choosing of travel routes, camp locations, and famine strategies that were induced by severe climatic stress. Do memories from past generations transmit coping mechanisms through the generations until this information is required once more? Do these coping mechanisms include memories of refugia – areas of likely resource availability when other areas fail to provide the need materials? Adding another dimension to mobility studies raises these questions and many more.

The answers may lay in considerations of prehistoric memory through oral tradition and mnemonic devices. If archaeologists accept the possibility of memory transmitted through millennia to recent times, it is reasonable to assume that information could also have been transmitted through a shorter time period – much as oral tradition about

historical events is currently growing in acceptance, allowing hunter-gatherers to gain a better understanding of their landscape and how to interact with their environment. The lengthy nature of time depth inherently available in prehistoric memory through oral tradition and language makes this particularly applicable to the early population of North America and archaeological mobility studies.

### *Conclusion*

Many challenges remain before the concept of prehistoric memory can be incorporated into archaeological methodology. The work of Strong and Echo-Hawk must be augmented by further research that incorporates the input of folklorists and linguistic anthropologists. Archaeologists and other researchers must develop methods of separating later interjections of information from science and modern discoveries into traditional oral tradition from myths that contain genuine collective memories persisting from prehistory. Until this is accomplished, archaeologists will continue operate and make interpretations without the full complement of information available. Native Americans have the potential to contribute more information to research on their pasts than is currently being realized. The incorporation of prehistoric memories into archaeological interpretations will provide an ever-growing number of opportunities for further collaboration between archaeologists and Native Americans.

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