Colorado Wickiups:
An Archaeological Context

by

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The various types of Protohistoric wooden structures that are found in archaeological contexts in Colorado are reviewed, including a *prehistoric* retrospective. The "state of the state" of ephemeral architecture analysis and field methodology is discussed as are proposed directions for future analysis and enhanced documentation techniques. A call-to-action is made for statewide support on what is perceived as a crucial need for documenting the ephemeral structures that are left in Colorado.

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Only a small percentage of the traditional wooden architectural features constructed by Native Americans prior to historic times remain intact. Those few that do are rapidly disappearing as a result of natural deterioration, fire, human destruction, livestock impacts, ips beetle destruction of pinyon support trees, and other physical threats. The documentation of these remaining and ephemeral cultural resources in the immediate future is acutely important.

Temporary brush and wood structures, have undoubtedly been made for millennia by the Native inhabitants of Colorado, and throughout the world, however it is primarily those from the last two to three hundred years that remain as part of the archaeological record. So obviously, the portion of the cultural history of the state that is most relevant to the Colorado Wickiup Project is the Protohistoric Era. Sanfilippo (1998) summarized the importance of wooden shelters in the archaeological record as follows:

> For most of human prehistory, people lived in small, quickly constructed dwellings of perishable materials. Because [these] comprise the record of tens of thousands of years of human social, political, economic, and technical evolution, such sites provide the only window on much of human development. Accordingly, every effort must be made to understand the ephemeral sites and architecture left by prehistoric groups.

Although a succession of tribes inhabited the eastern plains of Colorado, ethnographically the Utes occupied the mountains and western portion of the state for more than 500 years. As a result, a vast majority of the sites and structures dealt with in the Colorado Wickiup Project have been attributed to the Protohistoric Ute. Historically wickiups are well documented as the primary architectural feature of the Utes, although they should not be considered clear cultural markers (Gilmore et al 1999: 323 and Scott 1988).

Although a large majority of the sites described in the current study are wickiups, all forms of wood and brush architecture are of interest in terms of the development of our database of perishable, archaeological features of aboriginal origin. In my context for the Wickiup Project I have put together a glossary of definitions for wooden features that have been recorded in Colorado. What I'm presenting here is a gross simplification of those definitions.

Wickiups consisted of brush shelters of two basic styles; either free-standing or leaning on the branches and trunks of standing trees, referred to as "lean-to wickiups"or "leaners". They were typically conical but also occurred as informal makeshift shelters. Wickiups frequently incorporated brush or bark coverings, in addition to the existing boughs of un-limed poles. Hide, canvas, or other coverings were sometimes employed, with or without formal smoke holes. Doorways were informal openings (Sanfilippo 1998: 411). They may or may not have had internal or external activity areas and hearths (internal hearths being more common in free-standing wickiups) and occasionally had stones at the base of the poles as support or as weights for coverings. They were made of from two to twenty or more poles, varied in size from one to

over six meters in diameter, occasionally had prepared floors, juniper bark mats, or brush or hides scattered over the floor. Typically they were small expedient shelters, one or two meters in height, for one to four people, however larger, more formal wickiups have been recorded up to 15 feet in height and large enough to accommodate 10 or 12 individuals.

Although a great majority of the wickiups in the database are constructed of juniper poles numerous examples made from aspen poles have also been recorded at higher elevations, either freestanding or leaning against lodgepole pine or fir support trees (Gilmore et al 1999 and Martorano et al 1999). Additionally, conical structures have also been identified ethnographically as ceremonial houses, menstrual huts, pet shelters, and sweatlodges. Reed and Metcalf (1999: 161) state that no undisputed menstrual huts have been identified in the archaeological record, however Steve Baker (1996) contends that many of the structures on Ute sites that have been recorded as wickiups are, indeed, shelters for the isolation of women during their menstrual cycle.

Although apparently unknown in the archaeological record, at least in western Colorado (Reed and Metcalf 1999: 160), bent willow frame structures have been built and used ethnographically by Utes (Callaway et al 1986: 348) and others for shelter, menstrual huts, and sweatlodges.

Tipis: the classic, formal shelters of the plains after the arrival of the horse. However the Shoshone and Utes, are also known to have adopted the tipi upon acquisition of the horse (Trenholm and Carley 1964). Suffice it to say that tipis were larger and more labor intensive than the expedient wickiups, and were typically *not* left behind when the owners moved on.

Traditionally of Navajo construction, forked-stick hogans and forked-stick sweatlodges were usually free-standing structures, were typically constructed on an interlocked forked-stick tripod, with a supplementary framework of poles and an earth covering with a smokehole. The sweatlodges typically had a hearth or heating stones outside of the entrance, and an interior depression or pit for containing the hot stones for steam production. Lipe et al (1999: 361-362) state that there is a distinct possibility for the existence of similar Ute-affiliated sweatlodges–we recorded this one not far from Montrose on the Uncompahgre Plateau–Classic Navajo but...maybe it's Ute?.

Lean-tos and windbreaks consisted of a series of branches or brush that has been leaned along one side (or occasionally both sides) of a low horizontal tree branch, artificial wooden framework, or rock face. This one's a kind of wickiup-slash-lean-to, also on the Uncompahgre...probably Historic, but of unknown cultural affiliation.

Single and double poles leaned into trees were often used as fleshing or drying poles for hides, meat-drying racks, sunshades, etc. Many single and two-pole leaners have been recorded in the state's database as the remains of wickiups, but not necessarily always the case.

Non-conical platforms utilizing flat, horizontal framework "roofs" supported by vertically-set posts and/or the branches of living trees also exist. These had a variety of purposes including sleeping and burial platforms, hunting scaffolds, storage platforms, and sun shades. Although there's a number of tree platforms that have been recorded, we've only come across one actual ramada...

this one being in Delta County. It consisted of a partially collapsed ramada against the face of a sandstone outcrop that consisted of a large horizontal support beam that originally had one end resting atop the rock outcrop and the other end supported in the branches of a still-living juniper. Six additional beams were laid perpendicularly across the main beam with the opposite ends resting on the top of the rock outcrop. Three hearths, Uncompahgre Brown Ware sherds, and Formative and Protohistoric projectile points were found in and adjacent to the shelter indicating its use as a habitation. (Martin 1977 and Conner et al 2002).

Wooden and brush features were constructed and used both prehistorically, in the form of game drives and traps, and eagle traps, and in post-contact times in the form of corrals, pens, and drift fences for the control of horses and other livestock.

Utes were known to have cut and peeled sections of bark from Ponderosa pine trees for the purpose of obtaining the inner bark as a foodstuff, and apparently for a variety of other uses, including the procurement of wooden slabs for cradle boards. Similar tree scars have been recorded on juniper trees, and numerous uses for the *outer* bark of junipers are well documented.

Wickiups are found throughout the Ute homeland, however are most prevalent in the pinyon/juniper ecotone. Our studies of the Colorado database show that 81% of all wickiup sites have been recorded between the elevations of 5000 and 8000 feet.

Protohistoric sites with brush structures often provide insight into the relationships between artifact and feature distributions as they relate to earlier open artifact scatters where such structures have disappeared. Baker, Conner, and others have excavated lithic scatters where they've been able to infer the locations of ephemeral shelters that are now long gone.

As Rich just outlined in his discussion of the existing database, in general, the archaeological documentation of these structures has been far from adequate in the past, and continues to be unacceptable. In addition to helping set standards for future documentation, a major objective of the current study is to address the critical need to revisit known sites in the state and bring the documentation up to proposed standards.

An additional problem is that, even in areas that have been surveyed for cultural resources in the past, a great many such structures have, in all likelihood, been overlooked. In areas of high likelihood for such structures cultural resource managers should not assume that all, or even most, such structures have been located and recorded in previously surveyed areas.

Accurate chronometric dating of Protohistoric sites is critically important in regards to a number of research topics, yet remains one of the key problems. Until the acquisition of steel axes, wood cutting was a highly labor intensive activity. For both fuel wood and shelter poles, long dead wood that could be easily gathered or brought down without tools was far more appealing than living trees. Because of this old wood problem (the fact that both dendrochronological and radiocarbon dates provide only chronometric information on a tree's *death* rather than the year of its use), the resultant dates tend to be from one to three centuries earlier than the cultural utilization of a sample of wood...a distinct problem with resources that are only a few hundred years in age.

I agree with Reed and Metcalf (1999) who suggest that too many variables are involved to rely on an arbitrary constant of how many years to subtract from a date to account for the discrepancy. In many cases, tree ring dates from the altered surfaces of culturally-modified trees offer a greater degree of reliance than wickiup poles, and it is imperative that core samples of these features be collected, especially when they are associated with wickiups, ceramics, or other diagnostic artifacts. With the addition of steel wood-chopping tools, the cutting of still-living limbs and trees for construction purposes became more realistic and these samples would provide highly accurate dendrochronological dating, at least for these more recent sites.

Thermoluminescent dates from ceramics, when available, is a more reliable chronometric indicator and, as expected, tend to run from 100 to 200 years more recent than C-14 and dendro dates from the same contexts. It is crucial that studies be conducted at Protohistoric sites at which a variety of chronometric analyses can be employed, especially luminescence. The collection of multiple datable samples from, say, a single wickiup, will provide the beginnings of a system for constraining and managing the old wood factor. In addition to further analyses of the old wood problem, additional investigations into wickiup variability and resultant insights into feature function, site seasonality, and duration of occupation is of particular interest to the Colorado Wickiup Project.

All of these factors lead to a common underlying prerequisite: the timely, thorough, and standardized documentation of these ephemeral resources while they are still in existence. This will require the reinvestigation of previously recorded sites, careful scrutiny of geographic areas of high potential both in previously inventoried areas and during newly-conducted cultural resource inventories, and follow-up reconnaissance of structures alluded to anecdotally–by locals and amateurs. Essential documentation for all structures will include the completion of our newly-reworked Aboriginal Wooden Structure Form (or suitable substitute), precise and uniform UTM data, measurements, photographic documentation, and plan and elevation scale drawings. Further analysis of selected sites will involve intensive mapping of surface artifacts, excavation within and outside of structures, metal detection for trade goods, and the collection of diagnostic artifacts as well as chronometric and botanical samples from structures themselves and from associated hearths. With the accumulation of this hard data, and its assemblage into a localized and accessible database, the research objectives for Protohistoric research can be addressed, including an aspect of Ute settlement that I feel is significantly in need of more study; the post-

1881 off-reservation “refugee” era.

Variations within wickiup design and construction also remain understudied and poorly understood. It is conceivable and predictable that shelter design would have varied regionally, throughout time, seasonally, from one cultural group or band to another, from one individual architect to another, with the introduction of the horse as a beast of burden, and so forth. Furthermore, it is apparent that not all conical wooden structures were for the purpose of domestic shelter.

In addition to the standards of documentation normally applied when recording an archaeological site in the field, several supplemental techniques and enhanced levels of documentation are also recommended when an ephemeral wooden structure is encountered.

- Akin to the adage for photographic standards on an archaeological excavation, where much of the resource is being destroyed as it is being investigated, “*film is cheap*!”

< Perhaps the most valuable element of all in the documentation process is a carefully-executed elevation or profile sketch. By carefully drawing the individual poles and their relationship to each other and to the support tree if any, the nature of a structure can be much more graphically illustrated than simply with photographs.

< Possibly the most difficult aspect of recording standing wickiups is the creation of a plan view.

We’ve found that sometimes it is best to simply map in the *base* of each standing pole and the base, or “footprint”, of the support tree. In this way the outline or floor plan of a shelter becomes easily comprehendible.

< When authorized, it is recommended that a trowel test be conducted within the floor area of structures for the purpose of ascertaining the nature of the interior floor surface.

< Also when authorized the collection of datable materials is of primary concern.

As in excavation situations where cultural fill is left *in situ* for potential future investigations utilizing unforeseeable analytical techniques, materials from ephemeral structure sites should be collected and stored for similar developments. With this in mind it is possibly expedient to collect a soil sample from the surface of particularly intact wickiup floors for macro and microbotanical analysis down the road.

< Two examples are presented in our report of the wholesale collection of wooden

features; a free-standing wickiup and a tree platform (complete with tree), and offer one form of solution for the preservation of a select few of these rapidly disappearing cultural treasures. On the other hand, I have not found any references regarding *in situ* stabilization or reconstruction attempts for wooden structures of this nature.

There *are* notable exceptions out there to the typical, inadequately recorded wickiup site and Brian O'Neil's going to tell you about one of them.

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