

# An Updated Synthesis for the Cultural Sequence in the Tanana Valley, Alaska

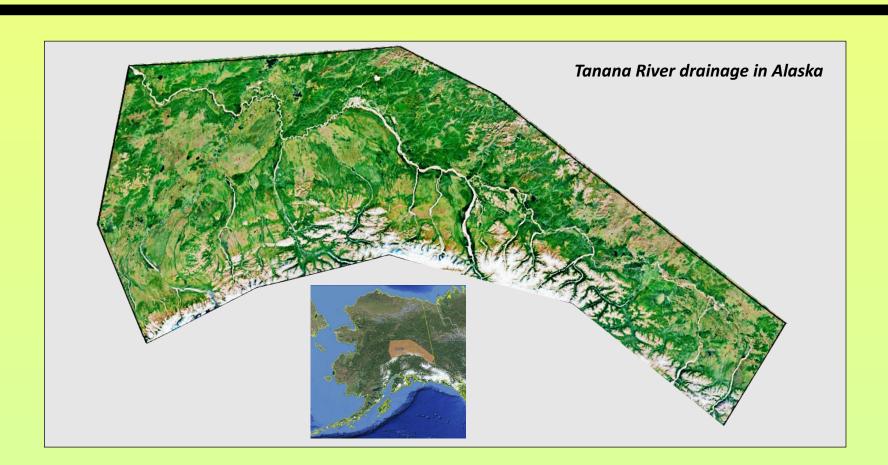


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**Dene tradition:** 

Early Phase, circa 1300 to 600 CalBP

Late Phase circa 600 to 250 CalBP



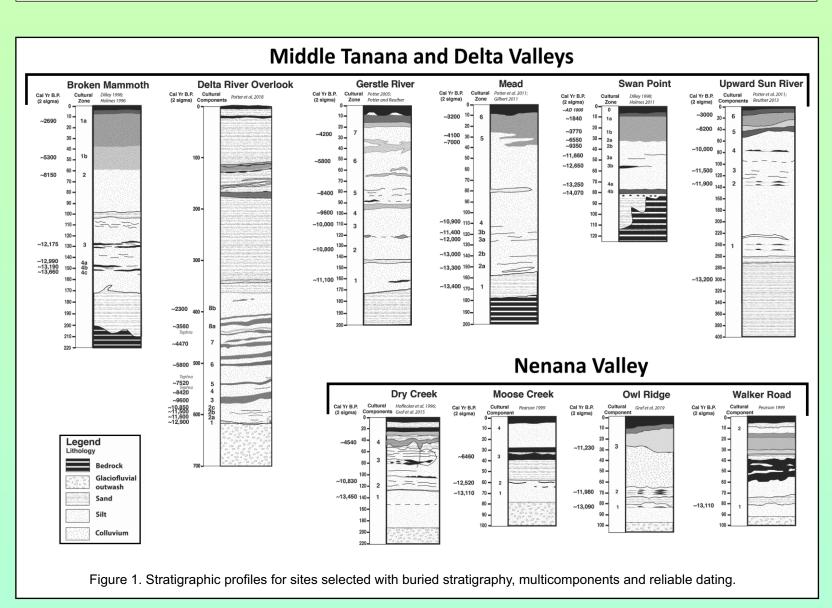
### Introduction

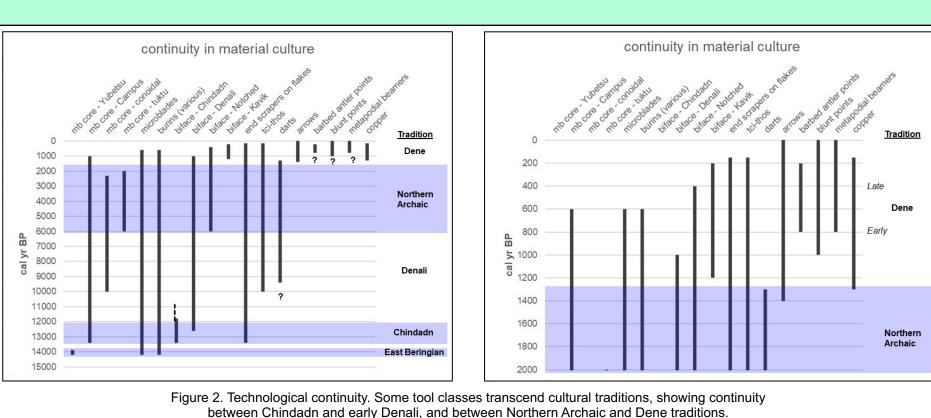
While considerable field research has been conducted in central Alaska, there remain ambiguity and disagreements about cultural systematics. Here we summarize radiocarbon dated components across the Tanana River basin in central Alaska. These data are set against the backdrop of the basic chronological framework introduced by Cook and McKennan (1970), modified by Dixon (1985) and Bacon (1987), expanded by West (1981, 1996), and updated by Holmes (2001, 2008, 2011) and Potter (2008, 2016). Evaluation of the expanding evidence from data acquired from controlled excavations over the past decade or so allows us to now revise the general timeline and assign new, provisional, terminology at a higher level of taxonomic specificity. The basic classificatory scheme relies on the dimensions of space, time,

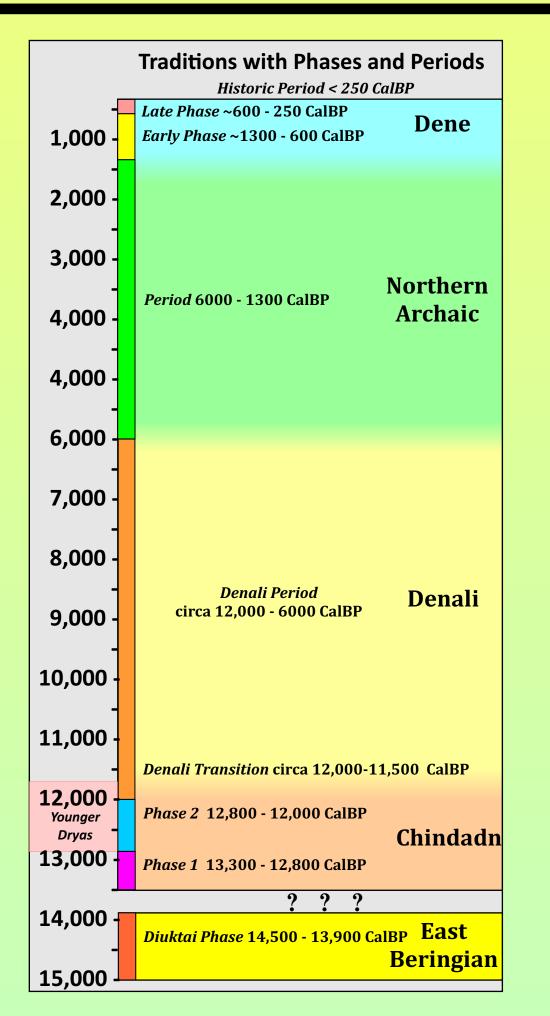
Following Willey and Phillips, the basic archaeological units for classification are the component and the phase. They define the phase as; "an archaeological unit possessing traits sufficiently characteristic to distinguish it from all other units similarly conceived, whether of the same or other cultures or civilizations, spatially limited to the order of magnitude of a locality or region and chronologically limited to a relatively brief interval of time" (Willey & Phillips 1958: 22). The tradition is a temporal continuity represented by persistence in technologies or related forms. Of importance here is the concept of aggregate analyses, where any one site is not assumed to possess all of the material cultural variability of the cultural complex or phase. Thus, multiple well-controlled sites from the region must be analyzed together to evaluate patterns, rather than constructing a cultural chronology from single sites or components.

Stratigraphy and chronology are critical in focusing archaeological units within archaeological regions defined by geography. We codify the archaeological records into a time-space systematic sequence that can be both heuristic and pragmatic for future work. We begin with classification schemes, local site components, complexes, and regional traditions that are widely used and accepted by archaeologists working in Alaska, and then discern and assign various components into phases and/or traditions. Establishment of the regional culture history is a crucial step that leads to more sophisticated analyses. We recognize that ecological and economic adaptations, seasonality, sexual division of labor, and raw material constraints all can and do affect artifact variability, yet cultural factors are also a source of variation, and our systematics presented here provide controls.

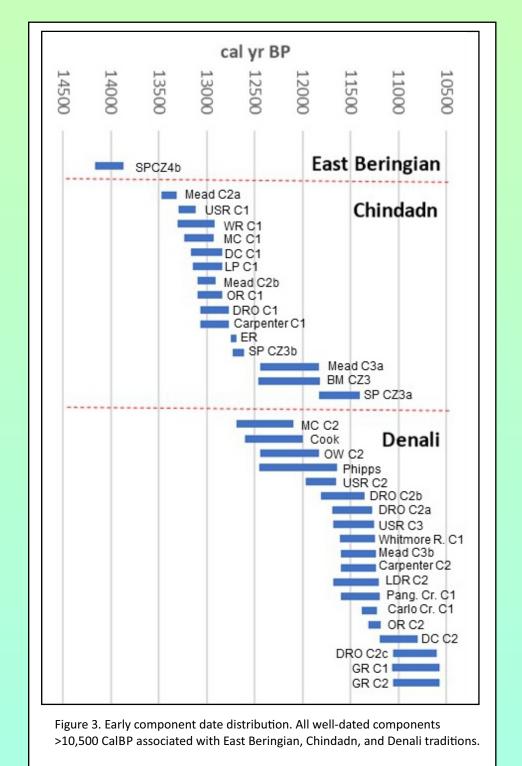
We have focused our review on sites with multiple components that: span the Holocene and Late Pleistocene; have a suite of reliable radiocarbon dates; occur in buried stratified primary context; are artifact assemblages with diagnostic tools. Biface technology has the best application for identifying changes in style with modifications easily discerned. However, other tool categories, e.g., microblade and burin industries, are useful in discerning changes as well but harder to codify. A wide range of more ubiquitous or highly variable classes like end scrapers and modified flakes are less useful. Other tools like organic implements may be more useful, but their absence or poor preservation













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### **Dene Tradition**

We view the transition from the Northern Archaic tradition to the Dene tradition to be one of in situ development of Dene peoples incorporating diffused artifacts into their existing technological systems. By about 1300 CalBP, bow and arrow technology replaced predominant dart technologies, and larger bifacial projectile points were replaced by barbed antler points, diminutive chipped-stone Kavik points, and morphologically similar copper points. Microblade and other formal lithic technologies continue until about 600 cal yr BP, when organic tools largely displace formal lithics, which we use as a marker between Early and Late phases of the Dene tradition. The Northern Archaic tradition subsistence strategies are largely similar to Denali people (predominant focus on caribou) but with increasing and intensive use of fish, particularly salmon, in the context of fish camps and widespread use of storage caches (McKennan 1981). Rarely preserved organic implements like beamers and blunts are common in the Dene tradition and may likely have been present during earlier periods; however, are adversely affected by boreal forest taphonomy.

## **Northern Archaic Tradition**

After 6000 CalBP, new technology and typologies that include notched bifaces, large semi-lunar bifaces, and notched cobbles enter the central Alaskan record, probably from the southeast (southern Yukon and northern British Columbia) and plausibly associated with Dene peoples. Various subgroupings have been proposed (e.g., Palisades phase, Portage Phase, Taye Lake Phase, Aishihik Phase, Minchumina tradition, Brooks Range tradition, and Tuktu Complex). With a larger sample, we do not observe any distinctive typological trends, as most forms are continuous throughout the record, including various notched and lanceolate bifacial forms. Northern Archaic sites are widely distributed in the same regions as Denali, suggesting total replacement. However, Denali type bifacial points, burins, microblades and campus-type microblade cores continue, suggesting an amalgamation of Ancient Beringians and entering Dene peoples. Northern Archaic peoples used many more point types than the preceding Denali, including notched, lanceolate (shifting from convex base to straight base), and straight-based, thin, parallel-sided points. These artifact types extend across much of western Subarctic Canada, and can be linked with the Taltheilei tradition (Gordon 1996). While there is shared technology with Denali, Northern Archaic had very different subsistence and land use strategies – focusing primarily on caribou and much less on bison or wapiti, and with more upland use (Potter 2008a-b). Rather than adapting to the "boreal forest" (Anderson 1968), we view the Northern Archaic phenomenon to be related to the arrival of caribou hunting peoples from the southeast amalgamating with existing Beringian ancestors to produce Dene tradition cultural expressions.

# **Denali Tradition**

During the Younger Dryas, while Chindadn tradition materials continued to be produced in some sites (Swan Point CZ3b, Mead C3a, Broken Mammoth CZ3), new technologies and typologies emerged in the region, denoted the Denali tradition. Denali (West 1967) encompasses the later proposed Paleoarctic tradition (Anderson 1968) and is ubiquitous throughout central Alaska during the later Younger Dryas, the early Holocene, until about 6000 CalBP. The Denali tradition is characterized by a collection of types including Campus-type wedge shaped microblade cores, willow-leaf convex-based projectile points (much larger than earlier Chindadn point varieties), and Donnelly type burins. Interestingly, these tool types persisted for millennia into the succeeding Northern Archaic tradition. Overall subsistence strategies seem similar to Chindadn tradition, primarily bison and wapiti hunting supplemented with terrestrial small game, terrestrial birds and waterfowl, and fishing (Potter 2008a; Potter et al. 2013). Peoples using Denali tradition materials exploited primarily lowland areas, though upland sites are present as well, generally after 10,000 years ago. Denali tradition materials expanded from a central Alaska core area to southwest Alaska, western Alaska (Seward Peninsula), the Brooks Range, Aleutians (Anangula tradition), Yukon, and the northwest coast during the Pleistocene/Holocene transition and Early Holocene (Clark and Gotthardt 1991; Coutouly 2016; Workman 1978). Three early Denali individuals have provided genomic analyses, indicating they are all part of a single Ancient Beringian group, the earliest diverged group from other Native Americans (including Na-Dene peoples).

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# **Chindadn tradition**

The Chindadn complex is divided into two phases based on biface typology and radiocarbon dating. These were the two criteria John Cook based his Chindadn complex on in 1969. Over the intervening decades archaeologists have used this term to apply to similar lithic artifacts that date to the early prehistoric period circa 13,500 to 11,700 CalBP in the region. There appears to be a clear departure in Chindadn from the Diuktai phase, with heavy reliance on microblade technology, to an emphasis on biface technology and low frequencies of microblades at Healy Lake, Swan Point, and Delta River Overlook, and to the complete absence of microblades at sites in the Nenana valley, e.g., Moose Creek, Owl Ridge, Walker Road, Dry Creek, and Eroadaway. The Nenana complex was defined and separated from Chindadn on this basis (Hoffecker 2001). Why such similar biface technology would align this way in opposing assemblages remains unclear. However, the answer may lie in environment factors associated with seasonal hunting strategies. While there is ambiguity among researchers on how to organize the data, we recognize a change in biface typology from the "classic" tear drop and triangular forms that are early, circa 13,300 to 13,000 CalBP, and later dated concave base forms, circa 12,800 to 12,000 CalBP. After a reassessment of the Healy Lake site and investigations at the nearby Linda's Point site, and new radiocarbon dating, Gillispie, Cook, and Sattler (2013) stated "...it may become appropriate to regard Chindadn as a local sequence divisible by phases...."

# **East Beringian tradition**

The earliest evidence for people in the greater Tanana valley watershed, and for Alaska as a whole, is the East Beringian tradition (Holmes 2001). Data from the Swan Point site and possibly the Holzman site have lithic tools and fauna that date to circa 14,000 CalBP. Swan Point has a distinct tool array dominated by microblade technology based on the Yubetsu method prevalent in eastern Siberia (Gómez Coutouly and Holmes 2018), e.g., Diuktai culture. Swan Point also exhibits a discrete burin technology utilized in the processing of raw materials, e.g., cervid antler and mammoth ivory. The Eastern Beringia tradition has two posited phases: Diuktai phase (14,200–13,900 CalBP) and a provisional phase circa13,500 to 13,300 CalBP. The Diuktai phase has not been fully replicated outside the Swan Point site. The unnamed phase is hypothetical at this time and based on biface forms that are unique to Swan Point, along with 15 microblades. The suggested age range may overlap slightly with other sites, both in the mid Tanana valley and the Nenana valley, when the entire 2 sigma range of dates are included (e.g., Healy Lake and Linda's Point, Walker Road, and

Site Key

**BM- Broken Mammoth** 

**CA- Carpenter CC- Cripple Creek** 

DC- Dry Creek

**DI- Dixthada** 

**ER- Eroadaway** 

**GR- Gerstle River** 

**HL- Healy Lake** 

**LP- Linda's Point** 

**MC- Moose Creek** 

ME- Mead

**OR- Owl Ridge** 

**SP- Swan Point** 

UC- U.S. Creek

Regional cultural history sequences, some over 70 years old, are outdated. Material culture variability and assemblage configurations result

from cultural practice; typically considered in terms of historical connections and evaluated through typological continuation and transitions.

continuity in many tool forms across traditions, and we define five cultural expressions: East Beringian, Chindadn, Denali, Northern Archaic,

We provide a provisional culture history sequence for the Tanana River basin derived from securely dated sites. There is remarkable

**US- Upward Sun River** 

**LM- Lake Minchumina**