

MONTANA PALEOINDIAN ARTIFACT RECORDING PROJECT: A CALL FOR DATA

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INTRODUCTION

Please help us to systematically record information about Montana Paleoindian artifacts to contribute to a continent-wide database. Such projects are underway in many states, provinces, and parishes throughout the United States, Canada, and Mexico (Anderson 1990a; Anderson et al. 2009), and are an extremely important source of information about the early human settlement of the Americas. We need to get Montana on the map!

Paleoindian materials are those that date from before about 8,000 radiocarbon years ago (9000 calendar years before present [cal BP]; Reimer 2004) in the Americas. The basic source for information about Montana-related tools is still Marie Wormington's 1957 *Ancient Man in North America* supplemented by George Frison's (1991) second edition of *Prehistoric Hunters of the High Plains* and Jeb Taylor's (2006) *Projectile Points of the High Plains*. However, none of these deals with Montana materials very well because the authors didn't know much about Montana—which we'd like to remedy. Wormington and Dick Forbis' (1965) *An Introduction to the Archaeology of Alberta, Canada* is a useful comparative book, as is Roy

Carlson and Martin Magne's (2008) *Projectile Point Sequences in Northwestern North America*. You should also check out information from the Columbia Plateau and Idaho's Snake River Plain. If you know of a handy general reference for those areas, please let us know. We don't know what pre-13,200 cal B.P. points (pre-Clovis) or associated tools look like, though Les Davis has found pre-Folsom artifacts from the MacHaffie site, but if you think you know of some, please let us know.

The first Paleoindian projectile point surveys in the country were started by Marie Wormington in Colorado and Ben C. McCary in Virginia in the 1940s. There has been minimal systematic survey done in Montana. Until we can collect Montana Paleoindian information, most of which is in the heads and collections of avocational archaeologists, we won't know what is out on the landscape and in collections. Please help us compile information about Montana Paleoindians, whether you're an avocational collector, member of a museum or cultural resource management firm, or academician.

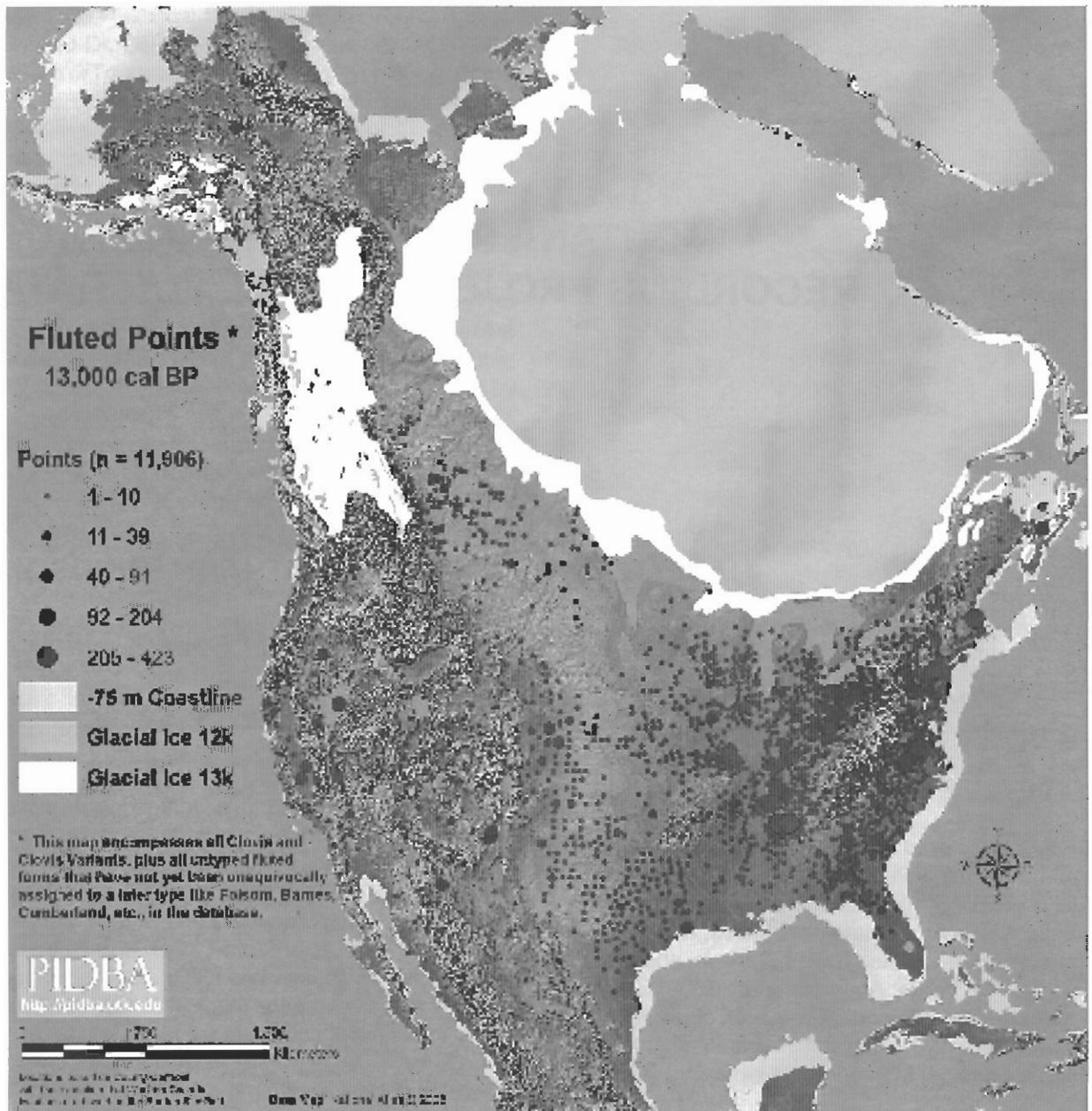


Figure 1. All Reported Clovis and Clovis Variant Point Forms, Plus Points Designated as 'Fluted' But Not Yet Assigned to a Specific Type in the PIDBA Database for North America as of 2009. Image Courtesy <http://pidba.utk.edu/>.

WHY IS A PALEOINDIAN POINT SURVEY NEEDED?

At present, comparatively little is known about Paleoindian occupations in most parts of the country. A few well known sites have been excavated here and there in Montana, such

as Anzick, Barton Gulch, Black Bear Gulch, MacHaffie, Mill Iron, Myers-Hindman, and South Everson Creek (Mammoth Meadow). Sites and artifacts are found from time to time in ongoing excavation projects, occasionally with spectacular results, but more typically there are only a small

number of Paleoindian tools in most organized projects.

In the late 1980s, Leslie Davis compiled data on 64 Montana Clovis and Folsom projectile points, which have been entered into the on-line *Paleoindian Database of the Americas* (PIDBA, <http://pidba.utk.edu>; Anderson et al. 2005). Unfortunately, no one since has followed up on this initial effort, and primary data on these artifacts (i.e., detailed measurements and photographs) are either scattered in a number of publications or remain unpublished. Putting all this information in one place, and making it easily accessible to an international audience, would be a valuable service.

When primary archaeological data are compiled, and available for inspection, they can tell us new and previously unrecognized things about the past. Fluted and other lanceolate projectile points and associated tools are unambiguous diagnostic indicators of early occupations. Information about their occurrence is thus the only way, short of excavation and absolute dating procedures, by which we can recognize where early peoples were on the landscape. By recording information about these artifacts, it may be possible to recognize and understand variation within these forms, something not well understood anywhere in the country at present. Equally important, we may come to better recognize landform types or specific sites where undisturbed assemblages may occur.

The quality and quantity of our information continues to get better and better, and with it, the things we can do with that information increase. In 1982 Louis Brennan and members of the Eastern States Archaeological Federation gathered information on 5820 Paleoindian projectile points (mostly fluted points) from 17 states and two Canadian provinces located primarily along the Atlantic seaboard (Brennan 1982). In the late 1980s and early 1990s, David Anderson (1990a) began compiling fluted point data from across Eastern North America, which was used to develop models of Clovis colonization and settlement in that region. The survey has expanded markedly in the two decades since it started and now encompasses the Americas. It is the work of many contributors.

As of 2009, the PIDBA web site provides locational data on almost 30,000 projectile points from

Canada, the United States, and Mexico (64 of which are from Montana), together with attribute/measurement data for over 15,000 artifacts. A new development is the inclusion of images of artifacts, some 6000 of which have now been posted. PIDBA thus provides an increasingly robust sample for researchers interested in exploring variability in early assemblages. PIDBA also has on-line files of radiocarbon dates and bibliographic references, as well as numerous links to other Paleoindian web sites. PIDBA serves as a repository for the data in state level surveys, but it is only as useful as the data donated to it. For it to succeed, surveys such as that being started in Montana need to be actively conducted and any data collected be made available to an international audience.

PIDBA point locational data have been used to produce maps of fluted point incidence across North America (Figure 1). The concentrations of fluted points that have been documented in various parts of the landscape may be areas where these people first settled, and from which subregional cultural traditions emerged—or they may reflect areas of greater geological exposure, and/or higher concentrations of modern collectors. A number of fluted point concentrations in the East have been interpreted as the territorial ranges of Paleoindian social groups, staging areas, or the nuclei of subsequent subregional cultural traditions (Anderson 1990b; Dincauze 1993). While the data obviously remain incomplete and subject to many kinds of bias, as the samples grow larger the patterns are likely to prove increasingly accurate.

Measurement data from individual artifacts have tremendous value as well. We still have a long way to go before we can claim to have documented the frequency and distribution of major stylistic and technological variants of Paleoindian points. Analyses are, however, starting to appear that are directed to resolving variations in Paleoindian projectile point styles and forms. As more and better measurement data on early points are compiled, we will be able to resolve important patterning in the data. Data from individual state recording projects are absolutely critical to the success of such efforts.

WHAT, WHO, AND WHY?

The purpose of this recording project is to compile measurements and digital photographs of the artifacts left behind by the earliest peoples of

HOW TO CONTRIBUTE TO THE SURVEY

our region. We're interested in points or even descriptions of complete assemblages, their material types and associated environmental data, site locations, and ownership, and whether the location in question is protected or is undergoing looting or erosion. Data are contributed voluntarily. Specific locations and private collection owner's names, while recorded, are made public only with owner's permission. If the collections are made from private lands with owner permission, or from public lands with a collection permit, we can help you record the find location if you wish.

Ruthann Knudson has agreed to coordinate this information collection effort, coordinated with Stan Wilmoth, Montana State Historic Preservation Office (SHPO) State Archaeologist, as well as the PIDBA. All information provided to Knudson will be transferred to both the PIDBA and Wilmoth, for long-term public use (except as specified on the submitted forms). The artifact record form accompanies this article (Recording Form) and can be copied for use with as many artifacts as desired; it is also available at the Montana Historical society web site (<http://www.montanahistorical.org/shpo/forms.asp>). If you would like help, contact Knudson—she, Wilmoth, and/or another professional archaeologist will visit you and help in any way possible. Sites are recorded on Montana Cultural Resources Information System (CRIS) forms. These are available online at the same website as (1) a WORD document with fill-in-the-blanks and drop-down menus or (2) a printable PDF version that can be printed, filled in, and mailed to the SHPO.

Information about projectile points in particular is collected using a standardized recording form (attached or available online), which is comparable to forms used in many other surveys. This ensures that at least some basic information is consistently recorded, allowing for analyses with materials over large areas. Additional categories of data can be added as necessary to the form, depending on local circumstances. Complete, broken, and reworked points and other tools should all be recorded.

We ask that people interested in Montana archaeology who have or know about Paleoindian projectile points or other artifacts fill out a copy of the attached record form for each artifact and send it to Ruthann Knudson (contact information below). A description of the attributes and measurements being recorded is provided on the record form, adapted from the form used in the Missouri state survey (Anderson and O'Brien 1998; Martens and Lopinot 2009). Recording projects like these are easy to get started, and while the task seems daunting at first, it is surprising how quickly information can be compiled.

Fill out the forms to the best of your ability. *The most critical information to collect are digital color photographs of the front and back of the artifact, and a side view if possible taken by mounting the artifact on a lump of clay. Photographs should always be taken with a scale such as a ruler or a coin placed close to the artifact.* Equally important is determining, as best as possible, the location where the artifact was found. In many cases only general locational data may be available, but even these are important since a few miles are unlikely to matter much in analyses conducted over a large area. Many of these artifacts were collected long ago, and while it is always best to determine the location as tightly as possible, important things can still be learned with more general data.

Don't worry if some of the information on the form is left blank or if any drawings included are fairly crude. Just knowing an artifact exists is the first step, and after that getting complete information about it is typically just a matter of time. Recording the current owner's name, or the collection repository where the material is stored is important, but these all too often change over time. Fortunately, good photographs of flaked stone tools are very much like fingerprints, making it possible to recognize artifacts reported previously.

In most surveys, information is contributed by many people, although it is usually only a few who actually fill out most of the forms. Knudson or another professional Montana archaeologist will try to visit the owner and record the artifacts if requested, and/or encourage people to bring artifacts to meetings, county fairs, or conferences

where they can be identified and more fully recorded.

A good way to draw stone tools is to photocopy or scan each side and then trace the flake scars from the copy. Even an outline, with the photocopies attached, is sufficient to begin the documentation of these artifacts. Once basic descriptive and locational information about a point exists, sooner or later the artifact can be photographed to scientific standards. Fortunately digital cameras make this task far simpler and less expensive than it was even a decade ago.

Attribute data should be compiled to the best of a person's ability. Positions at which artifact measurements are to be taken are illustrated on the record form. Measurements should be taken to the nearest millimeter using calipers if at all possible. Answer questions about the non-metric attributes (i.e., raw material, color, presence or absence of basal grinding) as best you can. Remember that once these artifacts are recorded, it should be possible to go back and collect more detailed data about them in the future. At the present, since we know very little about the kinds of Paleoindian artifacts that occur in Montana, any information that can be provided is important.

If you are uncertain how to fill out these forms, but know about artifacts that should be recorded, let us know. Once this project gets underway, there will probably be several people around the state who can help record these artifacts.

As forms are received by Knudson, specimen numbers will be assigned. Copies will be returned to the recorder, and the numbered forms will be sent to the Montana State Historic Preservation Office site files for permanent storage (as well as copies to the PIDBA). The progress of the survey will be reported in future issues of *Archaeology in Montana*. We need your help if this project is to succeed!

WHERE TO SEND COMPLETED FORMS

Send completed forms, or any other information about Paleoindian points, to: Dr. Ruthann Knudson, Knudson Associates, 3021 4th Ave. S., Great Falls, MT 59405-3329 (ph. 406.216.2676). Information

can also come as electronic documents to paleoknute@3rivers.net

We urge all members of the Montana Archaeological Society to participate in this project by contributing your own data or passing the request and forms along to other people who have important artifacts.

Let's really put Montana on the map!

REFERENCES CITED

- Anderson, David G.
1990a A North American Paleoindian Projectile Point Database. *Current Research in the Pleistocene* 7: 67-69.
- 1990b The Paleoindian Colonization of Eastern North America: A View from the Southeastern United States. In *Early Paleoindian Economies of Eastern North America*, edited by Kenneth B. Tankersley and Barry L. Isaac, pp. 163-216. Research in Economic Anthropology, Supplement 5. Greenwich, Conn.: JAI Press.
- Anderson, David G., D. Shane Miller, Derek T. Anderson, Stephen J. Yerka, J. Christopher Gillam, Erik N. Johanson, and Ashley Smallwood
2009 Paleoindians in North America: Evidence from PIDBA (Paleoindian Database of the Americas). Poster presented at the Annual Meeting of the Society for American Archaeology, Atlanta, Georgia, 24 April 2009.
- Anderson, David G., D. Shane Miller, Stephen J. Yerka, and Michael K. Faught
2005 Paleoindian Database of the Americas: 2005 Status Report. *Current Research in the Pleistocene* 22:91-92.
- Anderson, David G., and Michael J. O'Brien
1998 Missouri Paleo-Indian Projectile Point Recording Project: A Call for Data. *Missouri Archaeological Society Quarterly* 15(3):4-9.
- Brennan, Louis A. (editor)
1982 A Compilation of Fluted Points of Eastern North America by Count and Distribution: An AENA Project. *Archaeology of Eastern North America* 10:27-46.
- Carlson, Roy L., and Martin P. R. Magne
2008 *Projectile Point Sequences in Northwestern North America*. Archaeology Press, Simon Fraser University, Burnaby, BC.
- Dincauze, Dena F.
1993 Pioneering in the Pleistocene: Large Paleoindian Sites in the Northeast. In *Archaeology of Eastern North America: Papers in Honor of Stephen Williams*, edited by James B. Stoltman, pp. 43-60. Mississippi Department of Archives and History, Archaeological Report No. 25, Jackson.

Frison, George C.

1991 *Prehistoric Hunters of the High Plains*. 2nd ed. Academic Press, New York.

Martens, Richard E., and Neal H. Lopinot

2009 Paleoindian Point Survey: The Next Step. *Missouri Archaeological Society Quarterly* 26(1):6-10.

Reimer, Paula J., Mike G. L. Baillie, Eduard Bard, Alex Bayliss, J. Warren Beck, Chanda J. H. Bertrand, Paul G. Blackwell, Caitlin E. Buck, George S. Burr, Kirsten B. Cutler, Paul E. Damon, R. Lawrence Edwards, Richard G. Fairbanks, Michael Friedrich, Thomas Pl. Guilderson, Allan G. Hogg, Konrad A. Hughen, Bernd Kromer, Gerry McCormac, Sturt Manning, Christopher Bronk Ramsey, Ron W. Reimer, Sabine Remmele, John R. Southon, Minze Stuiver, Sahra Talamo, F. W. Taylor, Johannes van der Plicht, and Constanze E. Weyhenmeyer

2004 IntCal04 Terrestrial Radiocarbon Age Calibration, 0-26 Cal KYR BP. *Radiocarbon* 46(3):1029-1058.

Taylor, Jeb

2006 *Projectile Points of the High Plains: New Perspectives on Typology Based on Examinations of Original Type Site Specimens*. Jeb Taylor Artifacts Inc., Buffalo, WY.

Wormington, H. M.

1957 *Ancient man in North America*. Fourth edition, fully revised. Denver Museum of Natural History Popular Series No. 4.

Wormington, H. M., and Richard G. Forbis

1965 *An Introduction to the Archaeology of Alberta, Canada*. Proceedings of the Denver Museum of Natural History No. 11.

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Specimen # _____

Suggested Type Name _____

Montana Paleoindian Point Data Form

Owner: _____ Address: _____

Phone: _____ Email: _____

Public Access Constraints: _____

Recorder's Name and

Address: _____

Address: _____ Phone: _____ Email: _____

Image Number or

Identification: _____

Location of Find: _____ Location Ownership: _____

Nearest Water Source: _____ River Drainage: _____

Slope of Find Location: _____ Method of Recovery: _____

References: _____ USGS quad sheet: _____

Attributes

Measurements (English or metric)

Max. Width: _____

Basal Width: _____

Length of Basal Grinding: _____

Width at end of Basal Grinding: _____

Length (Actual): _____

Length (Complete): _____

Max. Thickness: _____

Depth of Basal Concavity: _____

Obverse face-

Basal Thinning/Flute #1 L _____ W _____

Basal Thinning/Flute #2 L _____ W _____

Basal Thinning/Flute #3 L _____ W _____

Basal Thinning/Flute #4 L _____ W _____

Reverse face-

Basal Thinning/Flute #1 L _____ W _____

Basal Thinning/Flute #2 L _____ W _____

Basal Thinning/Flute #3 L _____ W _____

Basal/Thinning/Flute #4 L _____ W _____

General Attributes

Material: _____

Color: _____

Patination: _____

Edge Shape: _____

Edge Retouch: _____

Basal Grinding: _____

Thinning/Fluting Technique: _____

Manufacturing Notes: _____

Reworking Notes: _____

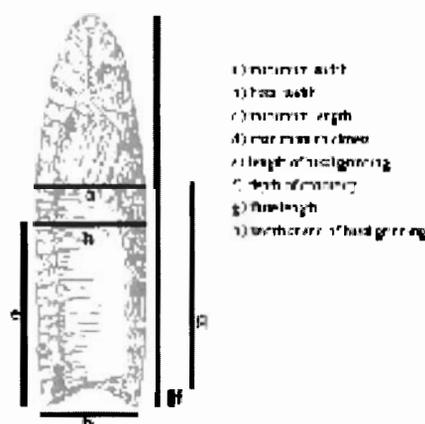
Special Attributes: _____

_____ | _____ | _____
0 1 2 inches

SKETCH POINT ABOVE

Montana Paleoindian Point Recording Project Attribute Key

For the following fields, record the following information:



Location of Find—Locate as exactly as possible, using legal description and/or UTM designation. Surface-collected points should be located to within 1/4 mile of actual location. Archaeologically-recovered points should be located within site both horizontally and to depth below surface, with publication references, and artifact disposition.

Nearest Water Source—Name the nearest water source and distance to that source.

River Drainage—Name the larger river drainage system where the site is located

Slope of Find Location—Describe which way the slope of the find location faces

Method of Recovery—Examples include “Surface collected in plowed field, Surface collected on eroded bank, Shovel-test recovery, Archaeological excavation.”

Material—Record raw material, preferably with a bedrock locality or even quarry.

Color—Give Munsell[®] Soil Color Chart hue, value, and chroma where possible.

Patination—Note whether the point is patinated or not. If there is evidence of post-discovery chipping, attempt to gauge thickness of patination.

Edge Shape—Note the shape of the working edges of the point (for example: straight/excavate/incavate)

Edge Retouch—Describe the reworking of the point’s edges. Note pressure flaking/resharpening.

Lateral and Proximal Edge Basal Grinding—Note presence/absence, describe as “heavy or light.”

Basal Thinning or Fluting Techniques—Describe any special basal thinning or fluting features. For example, note if thinning or flute scars do not terminate near the end of the point, if most of the fluting scar has been removed by subsequent flaking.

Reworking Notes—Describe any evidence of the artifact’s reshaping that might have affected the point’s use.

Special Attributes—Describe any special attributes of interest (e.g., burn pot lidding, shaft mastic adhering, association with animal bones).

Other Notes
