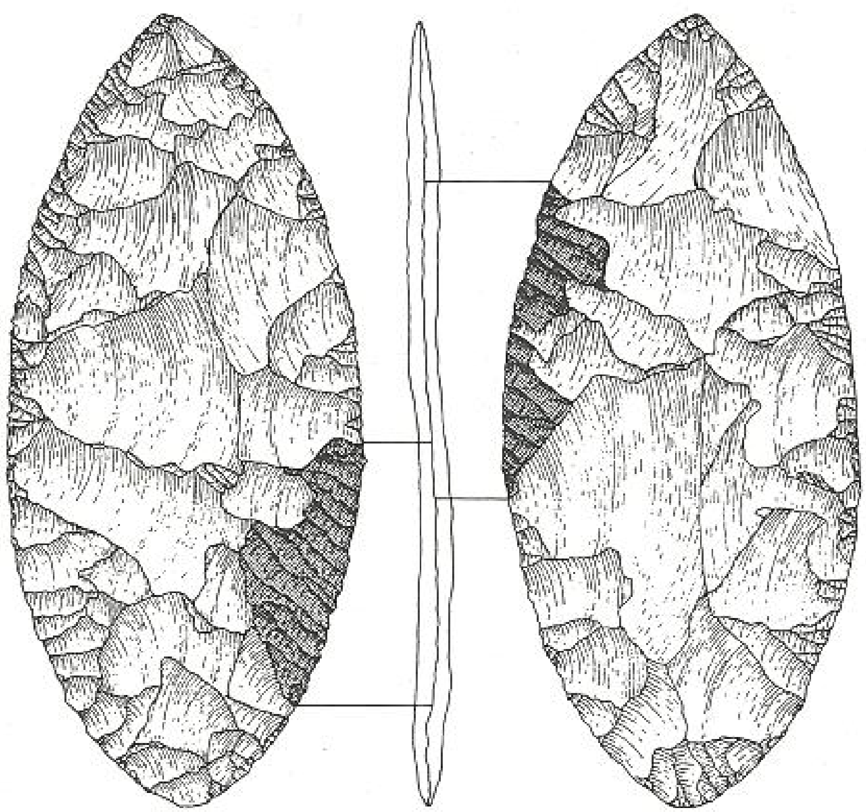
IDAHO ARCHAEOLOGIST



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Cover: Large Biface from the DeMoss site. Illustration by James C. Woods

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INTRODUCTION

The DeMoss Site is a Cascade Phase burial site dating to 6000 years BP. The remains of at least twenty-two individuals of all ages and 236 burial blades, Cascade points, and side-notched points have been recovered. The purpose of this report is to present a preliminary analysis of the site and the materials recovered. It will describe the site and how it was discovered, present a description of the artifacts, and provide an initial comparison of the artifacts with other burial contexts in Idaho and the Northwest. Only a few brief comments concerning the skeletal material can be made at this time.

THE SETTING

The DeMoss Site is located two miles south of New Meadows, Idaho (Fig. 1) on the edge of a ponderosa covered hillside just above the moist valley floor of Meadows Valley (Fig. 2). The site is located on the boundary between the Northern Rocky Mountain and the Columbia Intermontane Plateau physiographic zones. Near the site is Big Creek which merges with a number of other small creeks in Meadows Valley to form the Little Salmon River which drains north and meets the main Salmon River 35 miles north at Riggins, Idaho. Although separated by mountains, the Snake River runs through Hells Canyon approximately 25 miles west of the site.

The site is situated in and around a cold water spring. Its elevation is between 4000 and 4040 feet ASL. The soils are primarily colluvial in origin. Camas would have been common in the meadows historically (Statham 1982:66). Deer and elk were the primary aboriginal game animals.

DISCOVERY AND RECOVERY

The site was discovered by Mr. Craig DeMoss on September 20, 1985 while excavating the spring on the DeMoss Ranch. He uncovered a large quantity of human bone and associated artifacts. He stopped work and called the Alfred Bowers Laboratory of Anthropology at the University of Idaho. They in turn called the State Archaeologist's Office in Boise. For the next two days the State Archaeologist supervised the removal of the skeletal material and artifacts from the spring.

The site was not excavated in the traditional sense. The skeletal material and the artifacts were located seven feet below the surface in the middle of a boggy spring into which a large three feet diameter tile had been placed. When the State Archaeologist arrived at the site the spring had filled the hole with water completely to the surface. The archaeological materials could only be recovered by pumping the water out of the hole and having a person climb into the tile which was situated directly over the top of the spring (Fig. 3). The tile filled with water rapidly, and collections could only be made for 5- 10 minutes at a time before the cold water in the tile became too deep to work. Two days were spent collecting bone and artifacts in this manner. The tile was moved once to collect disturbed material located around it; the area was no more than 2 meters in diameter. The nature of the deposit prevented mapping the horizontal and vertical extent of the burial remains. All materials were recovered in a disturbed context.

HUMAN REMAINS

Thousands of pieces of human bone were collected. The skeletal material was sent to the University of Idaho where Daniel Seachord completed a preliminary analysis (Seachord 1985). The bone is in extremely poor condition with numerous fractures, and there is a complete lack of articulation. The condition of the bone is only partly due to the backhoe and the manner of recovery. Sometime in the past, probably before 5,000 years ago, the bone was exposed on the surface and then redeposited; hence, the bone shows signs of erosion and breakage. The backhoe and the crude manner by which the bone was recovered contributed to the overall poor condition of the collection.

Based on Seachord's analysis, there are at least 22 individuals represented. Of these 18 are 10 years of age or older, 3 are between 2-5 years, and there was at least

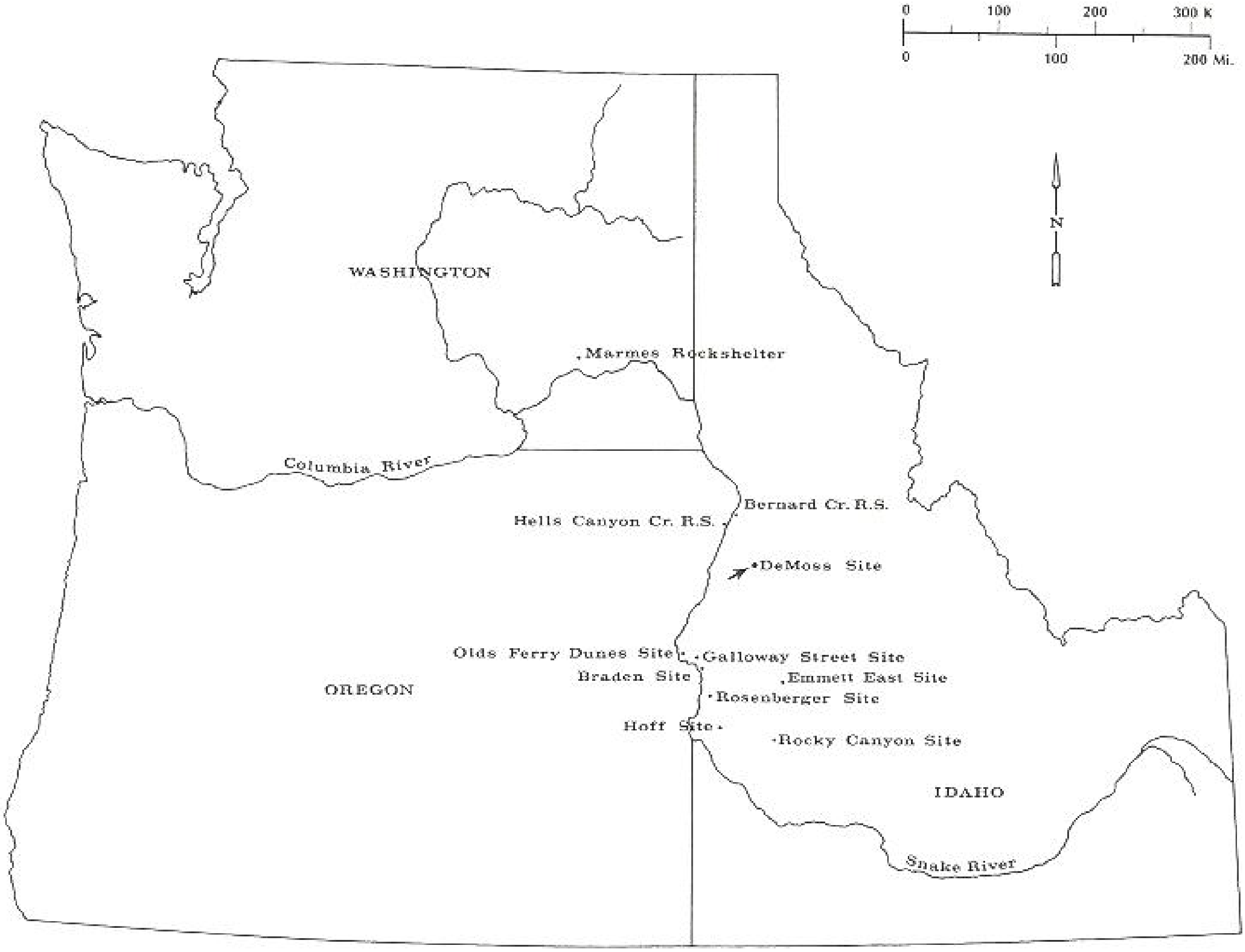

Figure 1: The DeMoss Site in the Northwest.

Figure 2: The Setting

Figure 3: Collection Methods.

one neonate. Seachord stressed that his estimate of the number of individuals is a conservative one based on the standard calculation for the minimum number of individuals. He believes there may be more than 30 individuals represented.

A full, detailed analysis of the human skeletal material is not yet completed. The interpretation of the material will be hindered by the lack of articulation and the generally poor condition of the bone. However, it is an important collection because of the age and the number of individuals recovered. It will need a complete scientific analysis before its final disposition.

GEOLOGY AND CHRONOLOGY

A geological study of the site has been initiated by Bruce Cochran and Frank Leonhardy of the University of Idaho. Using a Livingston sampler, a series of cores were taken from the spring bog. In addition, Mr. Craig DeMoss dug several backhoe trenches around the spring to expose soil profiles. No additional human bone or archaeological materials were found in these backhoe trenches. The site is apparently confined to the spring area. Additional core samples are needed to clarify the exact events leading to the deposition of the bone and artifacts at this location.

Based on the types of artifacts recovered, the site was estimated to date between 5,000 and 8,000 years old. Normally the association of side-notch and Cascade points indicates a Late Cascade component (Leonhardy and Rice 1970); however, in Hells Canyon, side-notched points have been found associated with Cascade Points in pre-Mazama deposits (Pavesic 1971; Randolph and Dahlstrom 1977). Fortunately, one radiocarbon date was obtained from undisturbed materials in the core samples associated with the DeMoss deposit. A bone sample dates 5965±60 (corrected) with a C-13 ratio of -19.7% (WSU #3426). This date indicates the archaeological materials do represent a Late Cascade component. This date also correlates with the preliminary geological analysis (Bruce Cochron, personal communication). When more cores are taken at the site, additional radiocarbon samples will be sought from undisturbed contexts in order to reconstruct the depositional history.

ARTIFACTUAL DESCRIPTION AND LITHIC ANALYSIS

The analysis of the lithic materials from the DeMoss site includes a morphological description of the 236 chipped-stone tools and tool fragments, and presents a summary of the technology employed in the manufacture of this collection.

The collection can be divided into eight tool forms (Table 1). Twenty-five percent of the collection (n = 60) consists of percussion flaked bifaces with margin modification by the pressure flaking technique. Percussion flaked bifaces, which lack any margin modification, constitute thirty-six percent (n = 86) of recovered materials. Eight percent (n = 20) of the artifacts are small, triangular, percussion-flaked bifaces, which are preforms of side-notched points. Side-notched points are six percent (n = 14) of the collection. Cascade points comprise nine percent of the collection (n = 22). Three percent consists (n = 7) of bifaces with minimally-developed haft elements. These may be incipient turkey-tail points. Knives made from macroflakes and macroblades comprise an additional three percent (n = 7), and the remainder of the collection (n = 20) consists of tool fragments which are too small to be accurately placed into any other tool category.

The collection is manufactured from a variety of locally available raw materials including basalt (47%), cryptocrystalline silicates and chert (35%), and obsidian (18%). Generally, basalt was a favored material for the larger bifaces, whereas obsidian and silicates were

TABLE I
DEMOSS COLLECTION ATTRIBUTES

Tool Type	Number	Material			Size Range in CM			Weight Range
		Obsidian	Basalt	CCS & Chert	Length Range	Width Range	Thickness Range	
1. Bifaces with margin modification by pressure technique	60	12	30	18	8.71 - 20.60	2.83 - 6.85	0.53 - 1.63	14.9 - 178.3g
2. Bifaces without margin modification by pressure technique	86	8	55	23	4.95 - 12.01	1.80 - 3.85	0.50 - 1.08	8.7 - 32.6g
3. Preforms for side-notched projectiles	20	8	3	9	3.71 - 6.54	1.76 - 4.50	0.49 - 0.80	3.8 - 17.6g
4. Cascade points	22	3	9	10	4.23 - 8.45	0.73 - 2.72	0.48 - 0.75	2.6 - 16.5g
5. Large side-notched points	14	5	3	6	2.75 - 5.93	1.69 - 2.41	0.43 - 0.63	1.8 - 7.1g
6. Incipient turkey-tail points	7	0	2	5	5.94 - 11.05	2.37 - 5.03	0.70 - 1.09	7.8 - 42.7g
7. Flake knives	7	0	1	6	4.63 - 8.91	1.74 - 3.47	0.49 - 1.15	4.0 - 23.9g
8. Biface fragments	20	6	9	5	1.77 - 8.00	1.64 - 5.03	0.16 - 1.18	0.9 - 22.8g
TOTAL	236	42 (17.7%)	112 (47.4%)	82 (34.7%)				

favored for smaller projectiles and projectile preforms.

The basalt is a fine-grained, intrusion-free variety. The obsidian ranges from a pure/semi-translucent, blue-black, to a blue-black with darker bands of color or lighter colored bands of poorly fused glass. The remaining materials are highly variable and range from medium-textured, light-colored cherts to dark-colored, fine grained chalcedonies with variable degrees of luster. Many of these silicates retain evidence of thermal alteration. At least six tools show enough of the primary flake scar to clearly show the textural differences between the flake scars produced before and after thermal alteration (see Crabtree and Butler 1964:1-2). Additional tools appear to have been heat treated, although secondary or tertiary flake scars fully cover both faces, and clear evidence of alteration has been removed. Enough examples exist, however, to suggest that macroflakes and macroblades were first detached from the core and heat treated prior to percussion shaping and thinning.

The eight groups of artifacts were defined on the basis of morphology as well as tool technology. The Cascade points and preforms, and, side-notched points and preforms, were defined by overall form and size, but the larger bifacial tools were separated into two groups by the presence or absence of margin alteration by pressure flaking. The first variety of large bifaces possess varying amounts of pressure flaking from entire margin modification to modification of relatively minor portions of the margins (Fig. 4).

The percussion thinning technique is diagnostic of the larger bifaces. The knappers first prepared a steeply beveled platform, generally between 70 and 85 degrees, then strengthened the platform by rubbing laterally with the percussor, a technique called buffeting (Young and Bonnichsen 1985:98). A relatively soft percussor was used and the force was oriented almost directly into the mass of the biface. The technique removes distinctively flat thinning flakes which tend to hinge at their termination, a feature also noted on many of the Archaic burial blades from the Weiser region.

The pressure flaking on these bifaces not only served the purpose of sharpening the margins, it also served to align the margin with the midline of the tool mass. This technique of margin straightening requires the removal of the triangular mass of material remaining between two percussion flake scars. When applied to a biface with very regular percussion flake intervals, a distinctive "pie-crust" effect (Pavesic 1985:72) is produced (Fig. 5c; 9e). When the percussion flake interval is not regular, or if the margin is curved and poorly aligned, a more random appearing pressure flaking pattern will result. Several specimens from the DeMoss site reveal distinctive evidence for the straightening procedure (Fig. 4). The bifaces in this first series are generally bipointed and the margins are excurvate.

The second variety of large bifaces are slightly smaller overall than the previously described tool form. The distinguishing characteristics are the slender leaf form and lack of any pressure modification (Fig. 11). The percussion flaking is very regular and the tool margins are straight when viewed laterally. It is possible these bifaces represent preforms for Cascade points although they could represent completed bifacial knives.

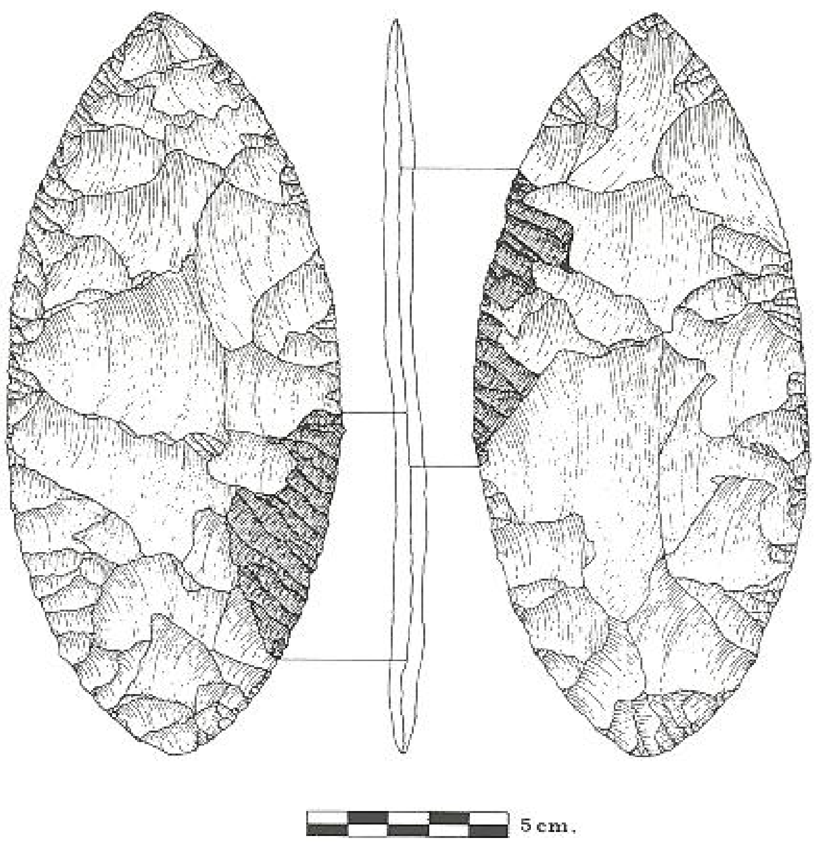

Figure 4: Large biface illustrating margin straightening by pressure flaking.

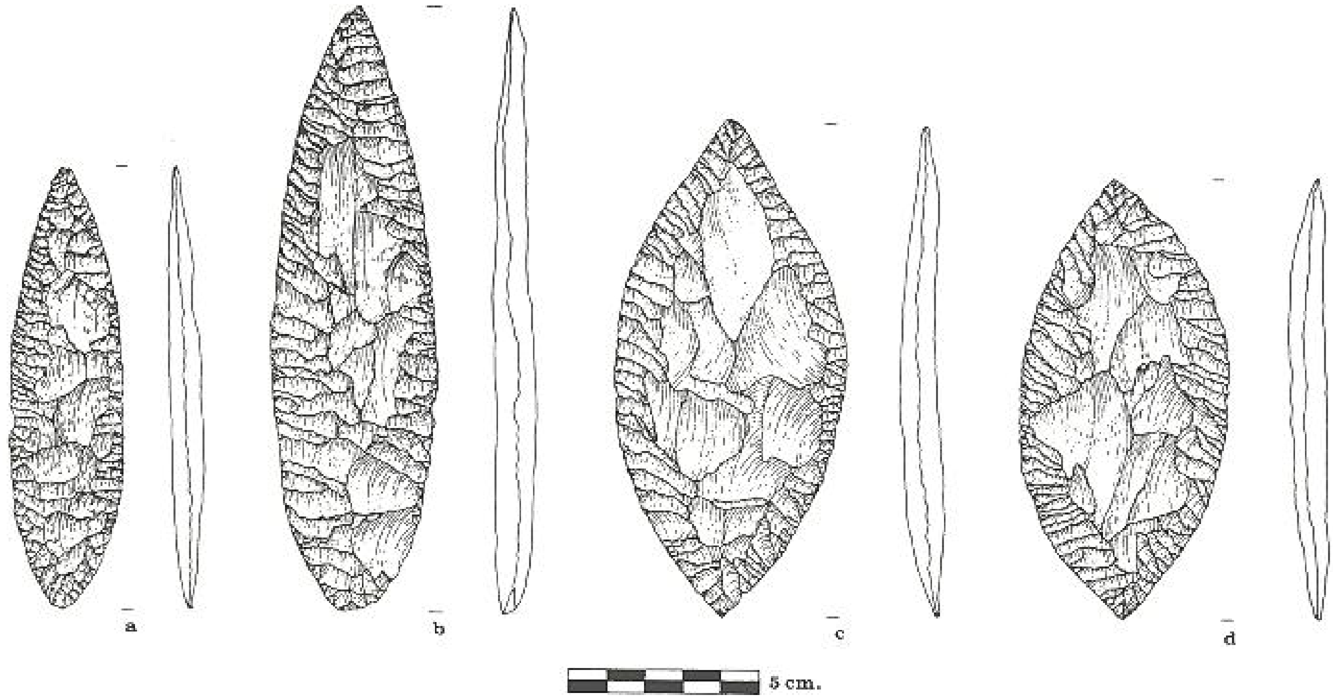

Figure 5: Bifaces with pressure flaked margins.

TABLE II
TECHNOLOGICAL ATTRIBUTES BY TOOL TYPE

Tool Type	Number With Primary Flake Scar Remnants	Number With Secondary Flake Scar Remnants	Number With Tertiary Flake Scar Remnants	Number Serrated	Number With Haft Elements
1. Bifaces with margin modification by pressure flaking. N=60	8 (13.3%)	60 (100%)	57 (95%)	3 (5%)	1 (1.6%)
2. Bifaces without margin modification by pressure flaking. N=86	9 (10.4%)	84 (97.6%)	33 (38.4%)	2 (2.3%)	0
3. Preforms for side-notched projectiles. N=20	4 (20%)	17 (85%)	6 (30%)	0	0
4. Cascade points. N=22	0	11 (50%)	22 (100%)	16 (72.7%)	0
5. Large side-notched points. N=14	4 (28.6%)	0	14 (100%)	2 (14.2%)	14 (100%)
6. Incipient turkey-tail points. N=7	3 (42.8%)	6 (85.7%)	6 (85.7%)	1 (14.2%)	3 (42.8%)
7. Flake knives. N=7	7 (100%)	1 (14.2%)	6 (85.7%)	0	0
8. Biface fragments. N=20	2 (10%)	17 (85%)	19 (95%)	0	0
TOTAL	37 (15.7%)	196 (83.0%)	163 (69.0%)	24 (10%)	18 (7.6%)

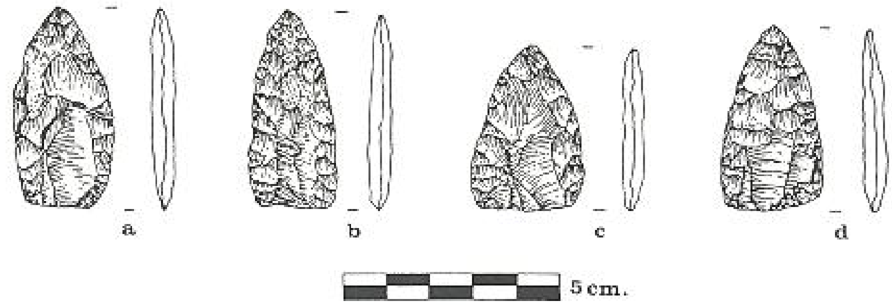

Figure 6: Side-notched point preforms.

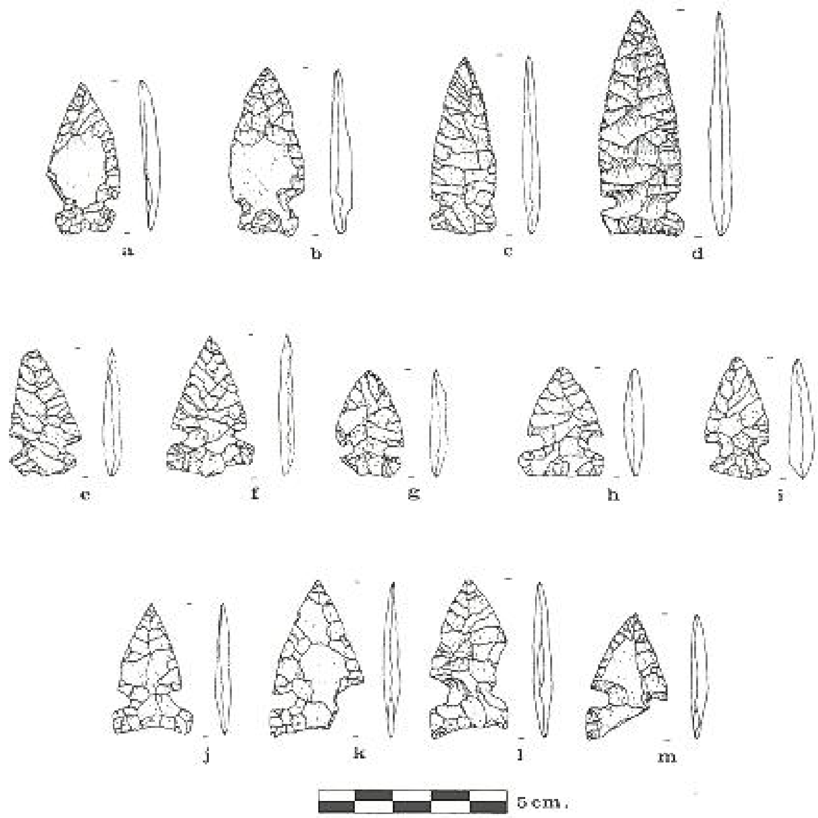

Figure 7: Side-notched points.

Figure 8: Cascade points.

However, the selection of raw material for this tool type is similar to the selection of raw material for the Cascade points (Table 1), and considering the general similarities in shape, it is probable these are Cascade point preforms.

The next group of bifaces are smaller and triangular in outline (Fig. 6). They consist of obsidian and silicates and again the material frequencies closely resemble the material type frequencies of finished tool forms in the reduction sequence of large, side-notched points (Table 1). Most of the shaping procedure was percussion flaking although some pressure flaking was used to straighten the margins. Many of these small, triangular preforms are highly striated and worn, possibly from transport prior to deposition.

The side-notched points are all triangular in outline with broad, tapering side notches (Fig. 7). Some appear morphologically similar to side-notched points recovered at several Late Cascade sites on the Columbia Plateau (Butler 1961; Leonhardy and Rice 1970), while others appear comparable to Northern/Bitteroot varieties common in southern Idaho. The pressure flaking pattern is random and two out of fourteen (14.2%) are serrated. Several points have been resharpened judging from flake scar patterns at the distal ends.

Twenty-two Cascade points are in the DeMoss collection (Fig. 8). All reveal diagonal pressure flake scars oriented at the same angle as flake scars on the large modified bifaces. Pressure flake scars fully cover both faces on 50% of the Cascade points and the remainder reveal manufacture from percussion blades or flakes. Seventy-two percent of these points (n = 16) are serrated. The serrations on the Cascade points were produced by unifacial removal of small flakes. Spacing be-

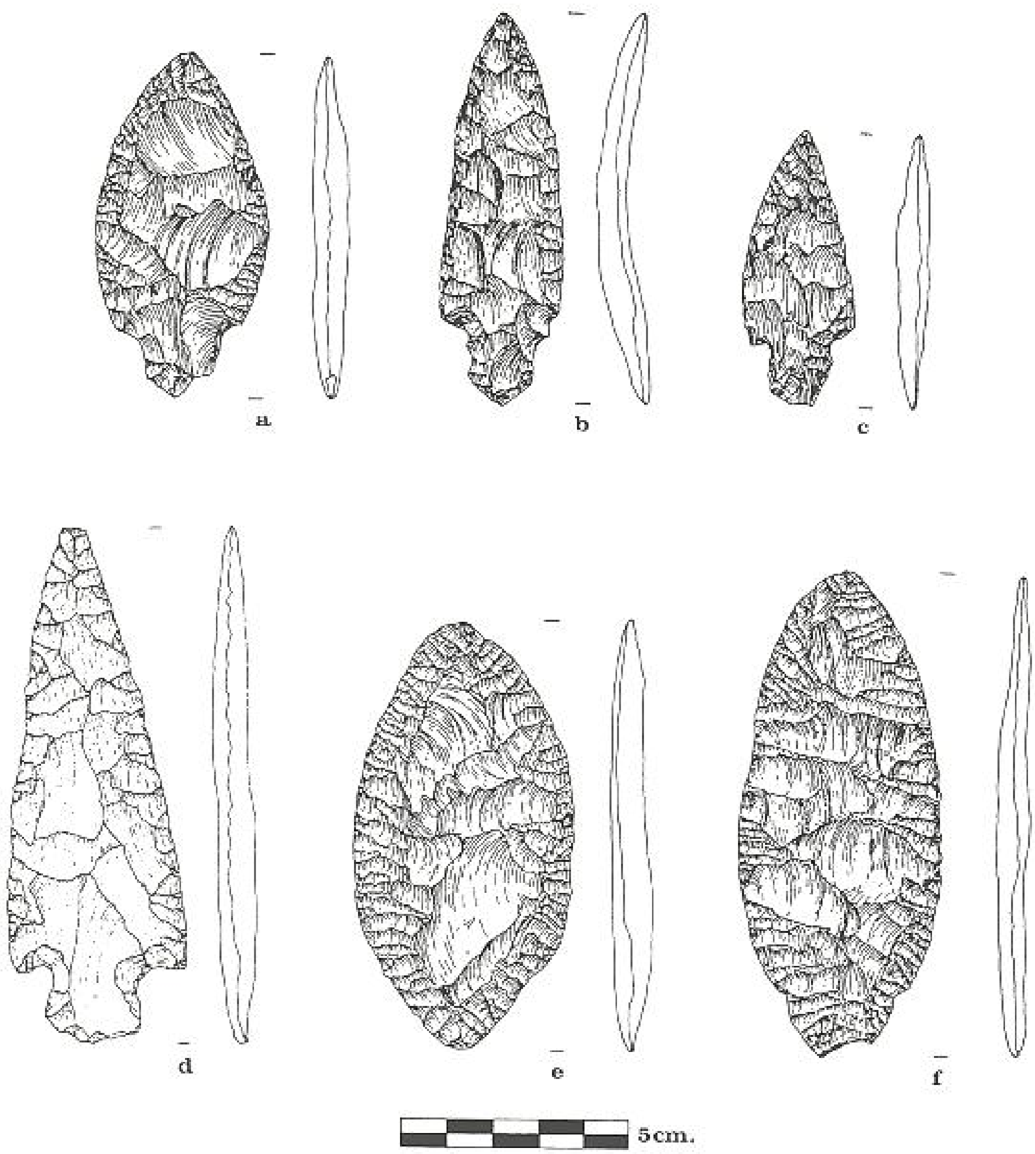

Figure 9: Incipient Turkey-tail points. A-C, stemmed; E-F, shouldered.

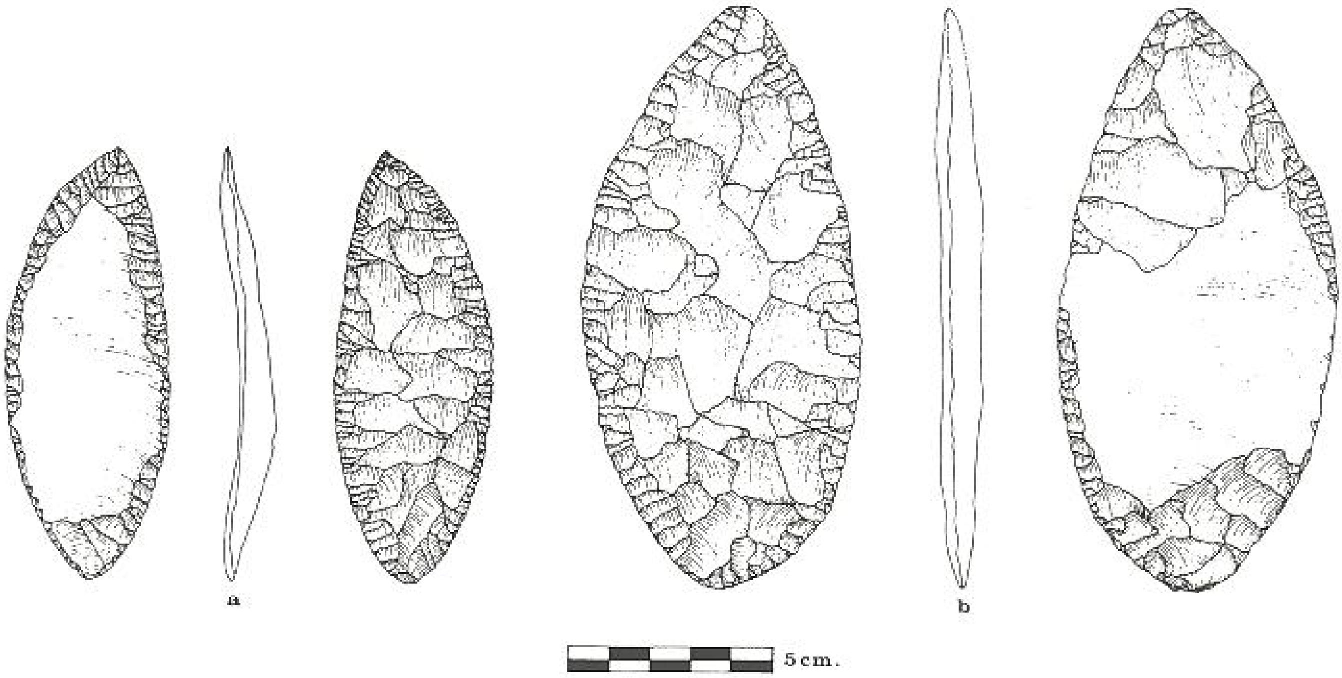

Figure 10: Knives.

tween serrations varies from 1.6 mm to 3.0 mm and is very uniform on each specimen. It is interesting to note the use of serrations on tools other than Cascade points. Five of the large bifaces (7.3%), two of the side-notched points (14.2%), and one of the bifaces with a haft element (14.2%) are also serrated.

The incipient turkey-tails (Fig. 9) are percussion flaked bifaces with margin alteration and the addition of a haft element. Generally, these haft elements are not well-developed and are highly variable. They range from slightly developed side-notches to slight shouldering of the margins near the proximal end.

The knives are manufactured predominately of silicates (85.7%). All retain major portions of the primary percussion flake scars and are markedly curved. Uniform application of pressure flaking along the margins suggests a sharpening sequence (Fig. 10).

Many of the artifacts recovered from the DeMoss site reveal varying amounts of damage. The primary form of damage consists of surface polish. The polish is the result of the artifacts location within the spring and the resulting contact with constantly moving abrasive materials. This damage tends to be unifacially oriented but in most instances affects tool margins significantly, thus limiting the potential for use-wear study.

Several of the larger bifaces were broken early in their depositional history. Different amounts of polish on two pieces of the same tool was noted in several instances. None of the breaks appear to be the result of manufacturing error or raw material failure. Most breaks are due to weight loading perpendicular to the face rather than end shock or perverse fracturing. This feature suggests they were broken by natural causes after burial. One biface has suffered impact from a hard object of undetermined nature. The break appears to predate the time of recovery and postdate the time of manufacture.

REGIONAL COMPARISONS

Cascade Phase sites are common in western Idaho north of the Snake River Plain. Cascade components have been excavated along the Snake River in Hells Canyon (Pavesic 1971; Randolph and Dalhstrom 1977), in the Lower Salmon River Canyon (Butler 1962, 1969), and the Clearwater River Valley (Ames, Green and Pfoertner 1981). A few Cascade sites have been reported in the mountains adjacent to these rivers (Keeler 1973). However, no Cascade Phase burial sites similar to the DeMoss Site are previously known in Idaho.

The DeMoss Site expands the interpretative base of the Archaic burial patterns as they are currently recognized in western Idaho and the Southern Plateau. The DeMoss Site is directly comparable to Cascade Phase burial materials recovered at the famed Marmes Rockshelter in southeastern Washington, and at the same time it clearly provides an antecedant for the recently identified Western Idaho Burial Complex (Pavesic 1985).

The Marmes Rockshelter, located at the confluence of the Palouse and Snake Rivers in southeastern Washington, contains burial manifestations dating from both pre and post-Mt. Mazama ash deposits, ca. 6,700 years B.P. (Fryxell and Daughtery 1962; Rice 1969; Breschini 1979). Findings include flexed or semiflexed inhumations, *Olivella* shell beads, use of red ochre, Cascade points in both pre and post-Mazama deposits, and large side-notched projectile points in post-Mazama deposits. A variety of chipped stone items were also recovered in the pre-Mazama deposits and atlatl weights, shaft straighteners, a milling stone, an edged cobble, a mica-schist manuport, bear canines, choke cherry pits and polished antler shafts characterize the post-Mazama deposits. Researchers suggest the use of the shelter as a burial depository during the Cascade episode. The recovered artifactual materials and their burial associations have not been subjected to social ranking variables. The interpretations have concentrated on culture historical reconstruction.

The Western Idaho Archaic Burial Complex has recently been defined and described by Pavesic (1985). The complex is identified at a number of sites in western Idaho (Fig. 1), and dates between 4500 and 4000 B.P. and possibly a few hundred years later. It includes multiple flexed or semiflexed inhumations which are commonly placed in high sandy knolls adjacent to major river drainages. The artifact inventory consists of the distinctive turkey-tail blades, bifacial cache blades, large side-notched projectile points, obsidian blank/preform caches, and *Olivella* shell beads. A liberal use of red ochre is characteristic. Items of a more limited occurrence include pipes, specular hematite crystals, shaft straighteners, canid skulls, various small bone and shell beads, miscellaneous chipped stone items, ground stone implements and a possible instance of human cremation. The pattern is believed to reflect an egalitarian, kin-based society defined by the preponderance of technomic artifact types. The interpretation also suggests a regional exchange network manifested by the shared north-south occurrence of *Olivella* beads and obsidian in the southeastern Plateau.

The technological analysis of the DeMoss lithic materials suggests a developmental association with the Western Idaho Burial Complex. Of note is the existence of bifaces with haft elements which are strikingly similar to the turkey-tails from the Weiser Basin (Pavesic 1985:60-61) and the distinctive margin straightening technology evident on the large bifaces (Pavesic 1985:69). The technology of the DeMoss collection may best be defined as a macroflake technology as many tools from all eight categories retain portions of primary flake scars or even portions of the original flake platform. A distinctive percussion thinning process was used on all eight varieties of tools. This thinning technology, the distinctive margin straightening technology, and the general morphological similarities with burial materials from western Idaho strongly suggests a developmental association between the DeMoss

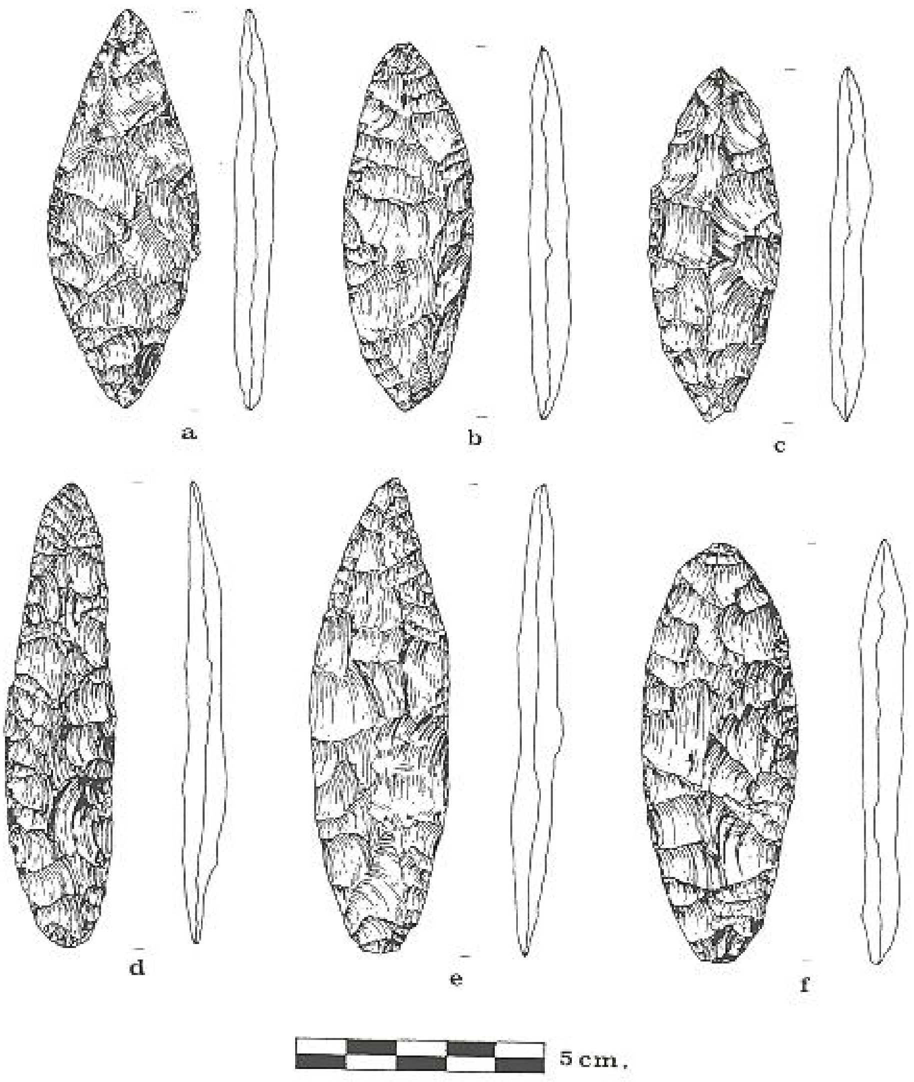

Figure 11: Bifaces lacking pressure flaked margins.

collection and materials belonging to the Western Idaho Burial Complex.

The DeMoss Site solidifies a cultural tie between the Marmes Rockshelter and the Western Idaho Burial Complex. The complex and the Marmes Rockshelter burials share a number of features which include flexed or semiflexed inhumations, large side-notched projectile points, *Olivella* shell beads, use of red ochre, and a similar range of lithic materials (cryptocrystalline silicates, basalt and obsidian) in the manufacture of chipped stone implements. The shared occurrence of pumice shaft straighteners and the recovery of mica-schist manuports at DeMoss and Marmes is beyond the obvious artifactual comparisons.

Regional differences between Marmes and western Idaho excluding the DeMoss Site, include the choice of burial localities; the shelter at Marmes as opposed to the sandy, riverine knolls of western Idaho. The spectacular turkey-tail blades of western Idaho are noticeably absent at Marmes as are the massive obsidian blank/preform cache offerings.

The Marmes collection is unique with antler shafts, bola stones, atlatl weights, canine teeth, choke cherry pits and Cascade points.

The strategic placement of the DeMoss findings in both time and space solidifies the regional connection between western Idaho and the Southern Plateau. Specifically, the DeMoss site adds time-depth to the western Idaho burial localities by the addition of Cascade points and bifaces. The Cascade association is a verification of a northerly cultural link while western Idaho culture continuity can be demonstrated through a shared lithic technology. The cultural tie to western Idaho is also reflected in the quantity and variety of raw lithic materials. A common theme at all localities is the manufacture of tools as burial furniture, vastly differentiated from the disposal of mundane items.

CONCLUSION

The information obtained from the DeMoss Site greatly expands our knowledge of Archaic burial patterns in the Northwest. As a Cascade Phase burial site the locality has clear ties with the burials at the Marmes Rockshelter in southeastern Washington. In addition, based on similarities in lithic tool technology, the site indicates there is a continuity between the earlier Cascade Phase burials and the later Western Idaho Burial Complex. A well established Archaic burial pattern is now a dominate archaeological theme in the mountainous portions of the southeastern Columbia Plateau.

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The authors wish to commend the DeMoss family for notifying the proper agencies so that the information from this exceptional site can be shared with others. In addition, they want to thank the DeMoss's for the use of their equipment, and the warm food and hospitality.

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SHORT CONTRIBUTIONS

EVIDENCE FOR THE HISTORIC OCCURRENCE AND ABORIGINAL UTILIZATION OF CARIBOU IN SOUTHERN IDAHO

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The current distribution of caribou in Idaho is restricted to portions of the Selkirk Mountains in the northern panhandle (Layser 1974: 39). During the late Pleistocene, their distribution extended south onto the Snake River Plain as evidenced by paleontological finds recovered from the vicinity of Shoshone Falls (Anderson & White 1975: 60) and archaeological remains recovered at Jaguar Cave in the Beaverhead Mountains of eastern Idaho (Kurten & Andersen 1972: 35-36). However, our knowledge of the spatial and temporal distribution of this animal between the late Pleistocene and the present, along with its use by aboriginal peoples, is meager.

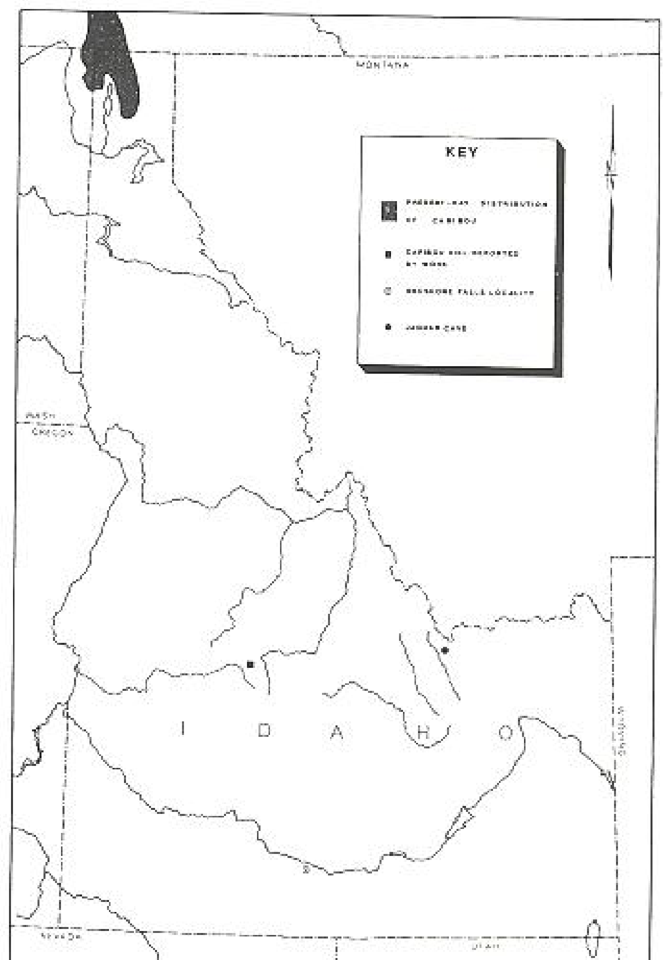
Archaeological and ethnographic evidence is presented that suggests the geographic distribution of caribou probably extended as far south as the Sawtooth Mountains of central Idaho until historic times, ca. 1832, and that caribou were utilized as a subsistence resource by the Northern Shoshoni of central Idaho.

The historic presence of caribou (Rangifer tarandus) in southcentral Idaho is documented in the journals of John Work, a chief-trader for the Hudson's Bay Company from 1830-32. On June 4, 1832, John Work led a brigade of fur trappers across the Sawtooth Mountains from Stanley Basin to the South Fork of the Payette River. His journal entry for that day read:

> MONDAY [June] 4. Cloudy, fine weather. Raise camp and proceed two hours, seven miles W.N.W. to along a swamp defile across a little height of land to a small creek which runs to the northward [Down Trail Creek to south fork of the Payette River]. The country has an excellent appearance for beaver but there are none, the little willows are too small. The people out hunting killed some cariboo. Bear tracks are numerous, some which have been killed, as well as cariboo are very lean. A chance track of elk is to be seen. The snow has but recently gone off the ground, it is boggy, and the grass is just beginning to spring up.
> (Lewis & Phillips 1923: 161-162).

The significance of this observation is the reported killing of caribou approximately 300 miles south of the animal's present-day range. The geographic description indicates a southerly extension of the caribou range to include the alpine environments of southern Idaho. The possibility that this kill was misidentified for some other large ungulate (i.e. deer or elk) is remote because the hunters accompanying the brigade were all experienced woodsmen (Lewis & Phillips 1923).

Additional evidence supporting this observation was



recently obtained from Dr. Sven Liljeblad, University of Nevada-Reno. Dr. Liljeblad relates that information collected from his informants at the Fort Hall Indian Reservation, in southeastern Idaho, indicates that caribou were hunted in the Sawtooth Mountains of central Idaho in pre-reservation times (Liljeblad, personal communication, 1986). Liljeblad states:

> Old speakers of this language [Northern Shoshoni], whom I interviewed in the 1940's, still remembered having heard about this animal [caribou], which they called *tsuugwi* or in English "reindeer." One informant added that the caribou formerly was found toward the Montana side. The word *tsuugwi* is reminiscent of the general Shoshoni term *tsuugwe* which means 'mule deer'. Since it is highly doubtful that Shoshoni was spoken in this locality before the fifteenth century, Shoshonean emigrants from the Great Basin toward the north often applied the terminology formerly used for botanical and animal food to new but similar species in their new habitats.

The recorded killing of caribou near Trail Creek in 1832 by members of the Hudson's Bay Company Snake River Brigade clearly documents the presence of caribou in the Sawtooth Mountains of south-central Idaho. Based on Work's journal, the approximate location of the kill is somewhere in the vicinity of Trail Creek, a tributary of the South Fork of the Payette River. Elevations in this region range from 7,000 feet a.s.l. (2133 meters) along the valley floor to over 10,000 feet a.s.l. (3048 meters) for many of the surrounding mountains. The local setting is typical of the caribou's preferred environment, subalpine forest (Layser 1974: 28-29).

This information, together with data provided by Liljeblad clearly argues for the southward extension of the caribou range into the subalpine environments of south-central Idaho during historic times. The age of this southerly limit for caribou is probably quite old. At Jaguar Cave, in the Beaverhead Mountains, Sadak-Kooros recovered a single antler fragment (Kurten & Anderson: 1972: 35) identified as caribou (*Rangifer tarandus*) from Hearth II which has a radiometric date of 10,370 ± 350 B.P. (Sadek-Kooros 1972: 7). Several other caribou (*Rangifer tarandus*) bone fragments were recovered from the Main Occupation Unit (Kurten & Anderson: 1972: 35-36), directly under Hearth II, the bone fragments are closely related in terms of age, though no radiometric dates were recovered from this unit.

Liljeblad's description of Northern Shoshoni utilization of caribou as a subsistence resource is especially significant because it expands the list of food resources exploited by these aboriginal peoples. Unfortunately, the hunting methodologies, material equipment and butchering practices associated with caribou hunting remain unknown.

Finally, this information should serve to increase our awareness of the potential presence of caribou remains in archaeological deposits of all ages in southern Idaho.

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Corrections to

AN ETHNO-HISTORICAL SHOSHONE NARRATIVE
PIE NɨMMɨN NAAKKANNA
"HOW WE LIVED LONG AGO"

Jon P. Dayley
Boise State University

There were several printer's errors in the article cited in the title above, which I would like to correct. The first and most significant of these errors occurs on p. 6, column 1, line 38 down (16 up). Here, the idiomatic translation of a Shoshone sentence example was left out. The example should read as follows:

(1) Sutɨɨn apeesɨn ke hinna tɨmɨɨtɨ.
those-ones that-time not anything buy
"They didn't buy anything then."

The other corrections are provided below. In each case, the incorrect form occurs first; it is then followed by "►" which means "should be rewritten as" or "should be corrected to"; then the correct form is given.

(2) p. 7, column 2, line 52 down (13 up):
tomo ► tommo

(3) p. 8, column 1, line 32 down (31 up):
tɨ utɨɨ ► tɨ nɨ utɨɨ

(4) p. 10, column 2, line 6 down (48 up):
hinna ► hinna
they some

(5) p. 10, column 2, line 23 down (32 up):
"tea" hipitɨ ► "tea" "tea" hipitɨ
tea drink-used-to tea tea drink-used-to

(6) p. 12, column 2, line 24 down (32 up):
tu ► tu
mountain through

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Dayley, Jon P.
1986 An Ethno-Historical Shoshone Narrative Pɨ Nɨmmɨn Naaddanna, "How We Lived Long Ago." **Idaho Archaeologist**, 9 (1): 3-13.

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