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WYOMING ARCHAEOLOGICAL SOCIETY

MINUTES OF THE SPRING MEETING APRIL 23-24, 1982

FRIDAY EVENING, APRIL 23, 1982

A formal meeting was held Friday, April 23, 1982. John Gilman and Craig Casner were appointed to audit the treasurer's books.

CALL TO ORDER AND WELCOME

The annual meeting of the Wyoming Archaeological Society was called to order at 7:30 p.m. by Bob Randall, President, at the Rawlins Inn, Green Room, Rawlins, Wyoming. President Randall thanked George Brox for his work in setting up the annual meeting. The time for the annual dinner was announced and the Sunday Foundation breakfast meeting which was scheduled for 9:30 a.m. at the Bel Air Inn, in Rawlins, Wyoming.

CREDENTIALS COMMITTEE AND VOTING DELEGATES

Bob Randall asked that Mimi Gilman give the credentials report, and he announced that only delegates and alternates were allowed to vote. Credentials were presented by the following chapters: Cherokee Trail-Debbie Chastain and Ada Jackson; Casper Chapter-John Albanese, Alternate Delegate Helen Bryant; Sheridan Chapter-Arnold Jacobson and G.D. Sween; Fremont Chapter-Helen Lookingbill and Alternate Delegate Ray Gossett; Sweetwater Chapter-Joe Bozovich; Big Horn Chapter-Milford Hanson.

SECRETARY'S REPORT

President Randall asked for the minutes of the last annual meeting. The minutes were passed to all attending members. Mr. Randall then asked that since everyone had minutes would they like to have minutes read or would the minutes be approved as printed. Helen Bryant requested the minutes be read and Mr. Randall had Mimi Gilman read. The secretary read part of the minutes but part way through the minutes she asked to be excused from reading. Randall entertained a motion to have minutes approved as written. Mr. G.D. Sween made the motion, Ada Jackson seconded it. Minutes were then approved as distributed and printed.

TREASURER'S REPORT

John Gilman was called to give audit report and since everything was in order the audit report was approved. The treasurer then gave his report. (see attached copy of treasurer's report). It was moved by Dogue Olinger that the treasurer's report be accepted as read, seconded by Ada Jackson.

A discussion followed with regards to the Foundation report and reinvestment plan, Treasurer Hanson reported the Foundation this year has a total of about \$1,700.00 for disbursement.

WYOMING
ARCHAEOLOGICAL SOCIETY, INC.



FINANCIAL STATEMENT
1981 - 1982

Balance in checking
Income

\$ 2808. 36
\$ 2128. 90

\$ 4937. 26

EXPENDITURES:

Editor (Check out) \$ 200.00
Scholarships \$ 400.00
Secretary Exp. \$ 200.00
R. Bonnicksen (Spring Meet.) \$ 394.08
Treasurer Exp. \$ 38.00
Sec. of State. \$ 3.00
Safety Dep. Box. \$ 5.00

\$1240.08

Transfer to Money Market.

\$1500.00

\$2740.08

\$2740. 08

Balance in checking 4/13/82
Money Market
Net Worth: 4/13/82

\$2197. 18
\$5790. 17

\$7987. 35

Net Worth: 4/1/81

\$6718. 36

Net Gain 1982

\$1268. 99

This report respectfully submitted by: Milford P. Hanson Treas.

AUDITED BY:

John L. Gilman
John L. Gilman

4/23/82
4/23/1982

EDITOR'S REPORT

George Brox gave a short report indicating that the Wyoming Recreation Commission was to continue printing The Archaeologist, he apologized for the delays and explained that it was due to lack of materials turned in for publication and asked for criticisms, contributions or replacement.

COMMITTEE REPORTS

Imogene Hanson was called to give her Certification report. She reported she had not done anything concise about the matter due to federal regulation changes and the lack of money for the certification program. Dr. Reher spoke on behalf of the professionals with regards to the matter of certification saying that they (the professionals) welcome the help of all state chapter members and that he couldn't see how it was practical to pursue the matter further. John Gilman and Dogue Olinger were asked for their opinion as Committee members and both agreed that everything that had been discussed was correct and that the Society could work with whatever was decided. Bob Randall made the motion that the certification program be dropped, moved by G.D. Sween, seconded by Debbie Chastain. Motion passed.

Mr. Randall then asked for the Scholarship Committee report and reminded us that the Scholarship was given at the annual banquet. Carolyn Buff, Dr. George Frison and Dr. Chuck Reher were introduced as the members of the respective committee. It was reported that the matter had been discussed and that the winners would be announced at the banquet. A discussion followed with regards to the separation of funds concerning the Mulloy Scholarship. Milford explained his monetary philosophy and explained why all the funds were combined. Increased amounts for the scholarship were recommended by John Gilman. Bob Randall entertained a motion on the Mulloy Scholarship. Mr. Gossett of Fremont Chapter made the motion the chapter set aside \$500.00 for the Mulloy Scholarship to be shared by two students, each receiving \$250.00, seconded by Craig Casner. Motion carried.

OLD BUSINESS

No unfinished business was presented other than the State Archaeologist question presented last year at the annual meeting and Bob Randall reported that due to Legislative changes and actions, lobbying efforts were not possible.

NEW BUSINESS

Mr. Olinger discussed the matter of paying people for writing articles for the Archaeologists. Several ideas dealt with reprints, as people have asked several times for our most interesting articles. Another idea was contests with prize money. This never came to a motion so item was tabled.

ELECTION OF OFFICERS

Mr. Randall announced he had not appointed a nominating committee. People need to be elected though. The elected officers are, President, 1st Vice President, 2nd Vice President. The appointed officers are Treasurer, Secretary and Editor. Ada Jackson made the motion the Society keep the present slate of officers, seconded by Dogue Olinger and Mr. Sween. Motion passed. Bob Randall then appointed Mimi Gilman Secretary of State, Milford Hanson, Treasurer and George Brox, Editor.

SELECTION OF A SUMMER SITE

Plans for the summer digs are not completed according to Dr. Reher. He announced there could be a possibility of the Lookingbill site. We couldn't select a final site until Dr. Frison was consulted.

SELECTION OF A SPRING SITE

The Sweetwater Chapter offered Rock Springs as the site for the Annual Spring meeting. Mr. Joe Bozovitch welcomes everyone that wishes to come. Debbie Chastain made the motion we have our Spring Meeting in Rock Springs, seconded by Ada Jackson. Motion passed.

OFFICERS COMMENTS

Mr. Randall made several comments with regards to the Society's ultimate goals. He read from the Constitution and asked questions from several individuals, asking for some new directions for the Society. A meeting with the Board of Directors was announced by Mr. Randall. This is to take place April 24, at 4:00 p.m.

Milford Hanson announced that Bob Edgar was supposed to come and talk to us about the planned museum in Cody.

Mimi Gilman asked for cooperation by the presidents and secretaries of each chapter with regards to new member lists.

Bob Randall asked for a motion of adjournment. Mr. Sween made the motion we adjourn, seconded by Ada Jackson, so at 9:10 meeting was adjourned.

SATURDAY, APRIL 24, 1982

PAPERS PRESENTED AT SPRING MEETING

The topic for the Spring Meeting papers was "Symposium on Southwest Wyoming Archaeology" and chaired by Russ Tanner. The papers were excellent and some will appear in the Wyoming Archaeologist.

The different topics were as follows:

"An Introduction To The Archaeology and Environment Of The Green River Basin of Wyoming." --Russ Tanner

"Results of B.L.M. Salvage Excavations in Southwestern Wyoming." --Dean Decker, David Vlcek

"Environmental Interpretation of Three (Particle size CaCO_3 , and PH) Soil Sediments Parameters, Using Samples Collected in Western Wyoming." --Michael McFaul

"A Comparison of Antelope Utilization Sites." --David Reiss

"The Hearth Story: A Green River Perspective." --Marcel Kornfeld

"A Terminal Altithermal Occupation On Austin Wash." --Debra Angulski

"Two Important Archaeological Sites Near Wamsutter in Southwest Wyoming." --David Vlcek

"Palio Environment Reconstruction At Deadman Wash." --Douglas Kullen

"The Deadman Wash Site Projectile Point Analysis." --Doug Heffington

"Summary of Deadman Wash Site Investigation." --Steven D. Creasman

"Results of Excavation at A Plant Processing Site In Sweetwater County." --Patrick O'Brien

"Mud Springs Shelter (48SW1670) A Multicomponent Late Prehistoric Site In Southwestern Wyoming." --Ines Pennella

Bob Edgar spoke to all of us with regards to the museum project in Cody, Wyoming. Brochures were passed and he requested people to help with ideas for fund raising and also help to raise funds.

BANQUET

The Banquet was held at the Rawlins Inn at 8:00 p.m. President Randall thanked everyone and introduced the head table and then announced the Foundation Breakfast to take place the following morning at the Belair Inn. Also he announced that Rock Springs would be the site for our Spring meeting in 1983 and Rosalie Miller, president of the chapter, was thanked.

Carolyn Buff was introduced to present the names of the scholarship winners and they were as follows:

Larry Todd, a graduate student in New Mexico.

Carrie Craig, graduate student at U.W.

Tom Larson, present of W.A.P.A., gave a short speech thanking George Brox and everyone involved in the planning of the meeting and encouraged both groups to meet together again next year.

DR. GEORGE FRISON DISCUSSANT

Dr. George Frison spoke of the beginnings of W.A.S. referring to Joe Wheat as the first president of the Society. The main topic of his talk was with regards of upgrading the overall goals of archaeology not only in the professional but in the amateur level also. The next topic was politics and advocacy for archaeology making the above, goals for the next few years.

Bob Randall then introduced our guest speaker, Mr. Horse Capture, curator of the Plains Indian Museum of the Buffalo Bill Historical Center. He showed exciting Indian photographs by W. Matheson dating back to between 1904-1910.

Meeting adjourned at 10 p.m.

Respectively submitted,

/s/ Mimi Gilman
State Secretary



ABOVE-George Horse Capture, curator Plains Indian Museum in Cody (left) and Russ Tanner, Secretary of W.A.P.A. and coordinator of the symposium on southwest Wyoming archaeology.



RIGHT-George Horse Capture commenting on historic photographs "The Way We Were".



LEFT-George Horse Capture with
Dr. George Frison, State Archae-
ologist.



RIGHT-Bob Randall, State Pres-
ident of the Wyoming Archae-
ological Society and George
Horse Capture.



LEFT-Dr. Frison spoke of the beginnings of the Wyoming Archaeological Society.

RIGHT-Bob Edgar presented ideas, facts and figures on "Echoes of the Ancient Plains Museum", a facility to house the story of the prehistoric hunting people of the high plains and mountains of Wyoming.



STEATITE, INTERMOUNTAIN POTTERY AND THE SHOSHONE:
SOME PRELIMINARY CONSIDERATIONS

by

Thomas E. Marceau
Wyoming State Historic Preservation Office

Paper presented at the
39th Annual Plains Conference
Bismarck, North Dakota
October, 1981

INTRODUCTION

It has long been held that the flat-bottomed, basal-flanged steatite vessels of the greater Northwestern Plains are indicative of Shoshonean occupation (Wedel 1951, 1954; Tuohy 1956; Keyser 1975; Frison 1971, 1978). Their resemblance to similarly shaped Intermountain pottery is only one of the lines of evidence which incorporates these items into the tapestry of Shoshonean material culture. The distribution of these stone bowls within territories held by or claimed by historic (Post A.D. 1800) Shoshonean groups is another. We proposed to pull at these threads, to question the assumptions behind the alleged association.

Merely stating that an association exists does not make it so regardless of how entrenched that claim has become in the literature. In this paper we will examine the evidence most often cited in support of steatite utilization as a diagnostic trait of Shoshonean speakers. What relevance, we may ask, does the 19th century placement of Shoshonean speakers have to the distribution of steatite bowls? Do similarities in appearance between steatite vessels and Intermountain pottery necessitate ethnic continuity? By assigning all steatite artifacts to the Shoshone, what other alternatives are eliminated?

We will begin our analysis by assuming the association to be true. We then draw a number of implications from this general hypothesis and assess the validity of each through statistical procedures.

SUMMARY OF THE ASSOCIATION

Perhaps the most compelling reason for considering steatite vessels and Intermountain pottery as part and parcel of Shoshonean material culture is the degree to which their combined distributions approximate the ethnohistorically known territories of these people (Mulloy 1952, 1958; Rudy, 1953; Wedel, 1954; Kehoe, 1959; Frison, 1971, 1978). This in large measure explains the willingness of investigators to attribute the use of these items to the late Late Prehistoric and/or Historic periods (Norris 1881; Smith 1910; Renaud 1932; Wedel 1951, 1954, 1961; Mulloy 1958; Kehoe 1959; Frison 1971, 1978; Butler 1979). Thus the argument that steatite products and Intermountain pottery are Shoshonean traits may be summarized as follows:

- 1) Historic accounts link the use of both steatite and fired-clay with the Shoshone.
- 2) Morphological characteristics of steatite bowls and Intermountain pottery bear strong resemblances.
- 3) The distributions of steatite products and Intermountain pottery are consistent with historically known Shoshonean territories.

- 4) The utilization of both items occurred within recent history.

Due to the time limit imposed on participants in this symposium, this paper will focus primarily on item number 3. Items 1, 2 and 4 are discussed at length in the full version of this work which will be published.

HYPOTHESIS FORMATION AND TESTING

Ideals, behavioral patterns, and material products are all linked to each other as a single organic whole within a culture. If we accept that both steatite and fired-clay containers were a part of the material culture of the Shoshone, then we assume their functions would have been similar, that is, they were used to cook in, store water, cache goods, mix pigments, and so forth. This assumption derives from the shared formal characteristics of these artifacts. Both are involved, then, in the domestic-economic sphere. Given that traditional Shoshonean subsistence was based on hunting and gathering, with an emphasis on mobility due to the need to schedule resource exploitation effectively, we expect that household goods would have been transported from locale to locale as the family moved through it yearly round. We propose, therefore, that an examination of the distribution of steatite products and Intermountain pottery should provide insight into those habitats being exploited.

One way we may test the proposition that steatite utilization, as a cultural trait, was restricted to Shoshonean speakers is by considering the relevant archeological data along its spatial (geographic) dimension. We may test solely for geographic correlations in the distribution of steatite artifacts and Intermountain ware within historically defined Shoshonean territory. Specifically, we can test the distributions with reference to (1) geographic extent, (2) altitude, and (3) physical setting.

STUDY AREA:

Given that the steatite vessel-ethnic association is most often made by investigators with direct reference to the Eastern, Lemhi and Northern Shoshone, the study area will be defined to include the historically exploited territories of these bands (Lowie 1909, 1924; Shimkin 1947; Stewart 1970). By study area, then, we mean Wyoming, southern Montana, eastern Idaho, and northern Utah. The principal drainages are the Snake, Green, and Bear Rivers west of the Continental Divide, and the Missouri, Yellowstone, Wind-Bighorn, Sweetwater and North Platte Rivers east of the Divide.

SAMPLE:

The archeological data were compiled from private collections, museums, state and federal inventory files, and the published literature. We have 125 locations in the study area at which

steatite artifacts and/or Intermountain pottery have been reported (Table 1 and Fig. 1). A total of 69 references were obtained for steatite artifacts and 70 for Intermountain ware.

TEST 1: GEOGRAPHIC DISTRIBUTION

Hypothesis: If the Shoshone utilized both steatite and clay as raw materials, and both were employed in the making of transportable domestic utensils, then the distribution of items made from these resources ought to be independent of exploited territories.

Statistical Test: Chi-Square (X^2) is the most appropriate method for assessing whether the distribution of steatite and Intermountain ware are random or patterned. A non-significant value would suggest that both types of raw materials were utilized rather evenly across seasonally visited provinces while a statistically significant X^2 would indicate where and how the utilization of these raw materials differed.

The test consisted of drawing a series of concentric circles--from 50 to 250 miles in diameter--on Fig. 1 and then counting the frequency with which steatite and Intermountain pottery occurred within each ring. A point on the Continental Divide halfway between Yellowstone and Jackson Lakes was chosen as ORIGIN for two reasons: (1) this region of northwestern Wyoming should have the highest concentrations of steatite goods and Intermountain ware (Frison 1971, 1978), and (2) each successive circle includes larger areas of lowland topography.

Observed counts are presented in Table 2. The category of GT 250 miles extends the observation to the limits of the map. The computed X^2 of 26.16 is significant beyond a level of 0.001.

Within 100 miles of the Continental Divide between Yellowstone and Jackson Lakes, steatite bowls predominate over Intermountain pottery by a ratio of 2.3 to 1. Indeed, the difference in frequencies within 50 miles of origin contributes 10.31 points to the overall X^2 -- the highest internal score for any zone. Steatite containers are clearly over-represented, pottery extremely scarce. Between 101 and 200 miles, pottery is 1.7 times as frequent as steatite bowls; however, no significance can be attached to this observation. Beyond 200 miles, though, the under-representation of steatite vessels accounts for more of the total X^2 than the high popularity of Intermountain containers which now appear 7 times as often as steatite. When the distribution of steatite vessels is compared to that of their ceramic counterparts, the assessment that steatite bowls are generally restricted to western Wyoming, particularly to the high country of northwestern Wyoming, cannot be attributed to chance.

Given that a prehistoric steatite quarry existed in the northern Teton Range, with other possible sources located in the adjacent Gros Ventre Range (Love 1975: 31-32), one might argue that the

distribution of steatite artifacts follows a classic pattern of decreasing frequency with increasing distance from source (e.g. Cann et al. 1968). However, in doing so one would first have to discount the prehistoric quarries known in the Dillon-Ennis area of southwestern Montana, Pipestone Lake among other sources on the western slopes of the Wind River Range, Rattlesnake Mountain in central Wyoming, and several outcrops in the Big Horn Mountains (Arthur 1966; Frison 1974; Lahren 1971; Shimkin 1947; Wedel 1954). Second, one would still need to explain why the use of clay as a raw material decreases so dramatically in frequency as one approaches the center of northwestern Wyoming.

Therefore, any hypothesis which proposes a coterminous areal distribution for the two types of vessels cannot be supported by the data at hand. Indeed, closer examination of the distributions suggests that steatite vessels tend to follow the higher elevations about the Continental Divide whereas Intermountain pottery appears to occur more often within the intermontane basins or on the plains away from these higher elevations.

TEST 2: ALTITUDE

Hypothesis: If clay and steatite items were manufactured and utilized by one people whose perception of usable environments was based on a shared cultural classification, and if no clear preference existed for either raw material, then the distribution of these artifacts ought to be fairly independent with respect to the elevation of exploited habitats.

Statistical Test: Again, Chi-Square is an appropriate method for determining whether the distribution of steatite and ceramic products is nearly equivalent or not. The test consisted of tabulating the frequencies of each raw material in zones of 1000 feet--from 3000' to 8000+ in elevation (Table 3). The χ^2 of 36.41 obtained from this contingency table was highly significant (p LT 0.001).

Of the 30 sites lying between 3000' and 4999' in elevation, 29 produced Intermountain pottery while only 1 (24SW403: S. Conner 1965, 1966) contained a steatite bowl. Steatite vessels occurred slightly more often than clay pots from 5000' to 7999' but with a ratio of only 1.2 to 1. These frequencies did not depart significantly from an expected distribution. However, above 8000' steatite artifacts were found at 12 sites while only 1 site (48 SU317: Frison 1974) produced a fired-clay Intermountain pot.

It is clear from these data that these raw materials were differentially utilized with respect to elevation.

These findings are confirmed when elevation is treated as a continuous variable and subjected to parametric testing. Elevation could be determined for 52 steatite find spots and 54 Intermountain ceramic locations. The statistical test employed was Student's t.

The mean elevation of sites containing steatite is 6941' while the mean elevation for ceramic sites is 5192' above sea level. The computed t-score of 6.18 is highly significant ($p < 0.001$). In an area in which this 1749' differential can signify the distinction between biotic zones and attendant floral and faunal resources (e.g. Carry 1917), this result is quite damaging in light of the general hypothesis being tested.

Therefore, one may not conclude that steatite items and Intermountain wares share equivalent elevational means. Controlling altitude according to raw material indicates that two unique populations are being sampled. It is safe to conclude, therefore, that steatite vessels occur much more frequently at significantly higher elevations than Intermountain pottery.

TEST 3: PHYSICAL SETTING

It is possible that steatite artifacts were manufactured and utilized only in those areas immediately adjacent to upland sources primarily because of the burden involved in transporting heavy stone bowls. Clays suitable for pottery, on the other hand, are available almost anywhere in the area under study. Therefore, the potential for ceramic manufacture and utilization would suffer no analogous restrictions. Yet one could assume, if for no other reason than to justify the expenditure of labor involved in carving a stone bowl, that steatite and pottery were seldom used simultaneously at any location. This would imply that pottery should occur most often at lower elevations.

Only riverine sites are considered in the following analysis because they may be further classified according to their position within drainage systems. That is, those close by a major watercourse (see Fig. 1) are placed in the group "Riverine 1", those which are located on a main tributary of any principal waterway are classified as "Riverine 2", while those which are found on a primary feeder to such a secondary stream are labeled "Riverine 3".

Hypothesis:

If steatite was the preferred medium among the Shoshone for use at headwater sites, as opposed to clay, then substantially more steatite should occur in Riverine 3 contexts than any other as this represents the headwaters zone for most drainage systems.

Statistical Test:

χ^2 . Table 4 contains the observed frequencies for this classification. The χ^2 value of 1.71 (Yate's correction applied) is not significant ($p > 0.10$) and no distinction can be made between currently known distributions with respect to physical setting as defined in this study. Contrary to expectations, the clear majority of finds for both materials occurs in Riverine 2 settings. Therefore, the test hypothesis cannot be confirmed.

No clear association between steatite vessels and headwater settings can be substantiated by the data at hand.

Nevertheless, because of previous tests, two physical setting classifications were re-examined utilizing a parametric test on elevation. Both Lacustrine and Riverine 2 taxa contain totals large enough for non-spurious results if a t-test were employed. When the elevations of lake-side sites containing steatite vessels are averaged, a mean of 8430' is obtained; similar tabulation for Intermountain ceramic locations results in a mean elevation of 5022'. This 3408 foot difference in mean altitude yields a t-score of 6.55 which is significant well beyond a level of 0.001. While it is true that steatite and ceramic bowls are found near lakes, the elevations at which these lakes are situated mitigates against considering them to be "equivalent" ecological settings (Carey 1917).

Steatite appeared at 16 Riverine 2 locations while Intermountain pottery occurred at 13 such sites for which an altitude was known. The mean elevation of 5459' for the latter did not compare favorably with that of 6515' for steatite. However, the t-score of 2.03 was not statistically significant ($p = 0.06$). These results, then, imply that neither steatite vessels nor Intermountain pottery will occur disproportionately along secondary streams running between 5000' and 7000' in elevation. However, steatite vessels in the present sampling exhibit a tendency to occur at higher elevations along these drainages.

INTERPRETATION: Preliminary Synthesis

An object of material culture which figures into the preparation, distribution and/or storage of food should be transported as an integral part of the family's moveable baggage. One would expect that a highly mobile people would lose, break, or discard items at many locations within their usual range. Consequently, a study of the pattern of disposal of these lost or discarded objects should indicate which areas were habitually utilized by the people under investigation. Based on the cumulative results of tests on both frequency and continuous data, steatite artifacts and Intermountain pottery would seem not to have been deposited within archeological assemblages by people following a single lifeway under the constraints of a common cultural system. Distributions do not agree with respect to either geographic extent or elevation. Steatite, especially vessels, is too frequently encountered at high elevations particularly near the Continental Divide, whereas Intermountain pots predominate at lower elevations on the open plains. While riverine placements fail to discriminate between distributions, lakeside sites demonstrate convincingly that physical settings are nevertheless differentiated. In fact, the only consistent overlap in geographic distribution occurs within the mid-elevation basins along the courses of secondary streams although occupations need not have been simultaneous. Considering the series of tests and their respective out-

comes as discussed in the preceding pages, we may well question the assumptions behind our hypotheses. Either the bowls were not functionally interchangeable, or they were not manufactured by the same craftsmen. We are inclined to believe that steatite vessels and Intermountain pottery were the product of separate cultural entities.

We advance, therefore, the existence of two independent cultural systems as a better explanation for the observed patterns of geographic dispersal and physical proportions for these domestic objects. One group--here called "Steatite Makers"--exploited habitats ranging from high mountain meadows to the intermontane basins; the second group--Late Prehistoric and Historic Shoshonean bands--roamed from these intermontane basins to the open plains in the subsistence quest.

This hypothesis not only accounts for the discrepancies in the distribution and size as discussed above, but, by allowing for a degree of spatial and possibly temporal overlapping, also serves as a plausible explanation for the fact that the distributions of steatite bowls and Intermountain pottery are not significantly different between 101 and 200 miles of the Continental Divide, nor between 5000' to 7999' in elevation.

The predominance of steatite bows at high elevations in northwestern Wyoming has already been shown to be meaningful (pp. 6-7, Altitude). The concentration of these vessels within Yellowstone and Grand Teton National Parks takes on added weight when we consider that "there is little evidence from the material cultural or from the ethnohistoric documents for the presence of Shoshonean speakers in the high mountainous northwest of Wyoming." (Wright 1977:12).

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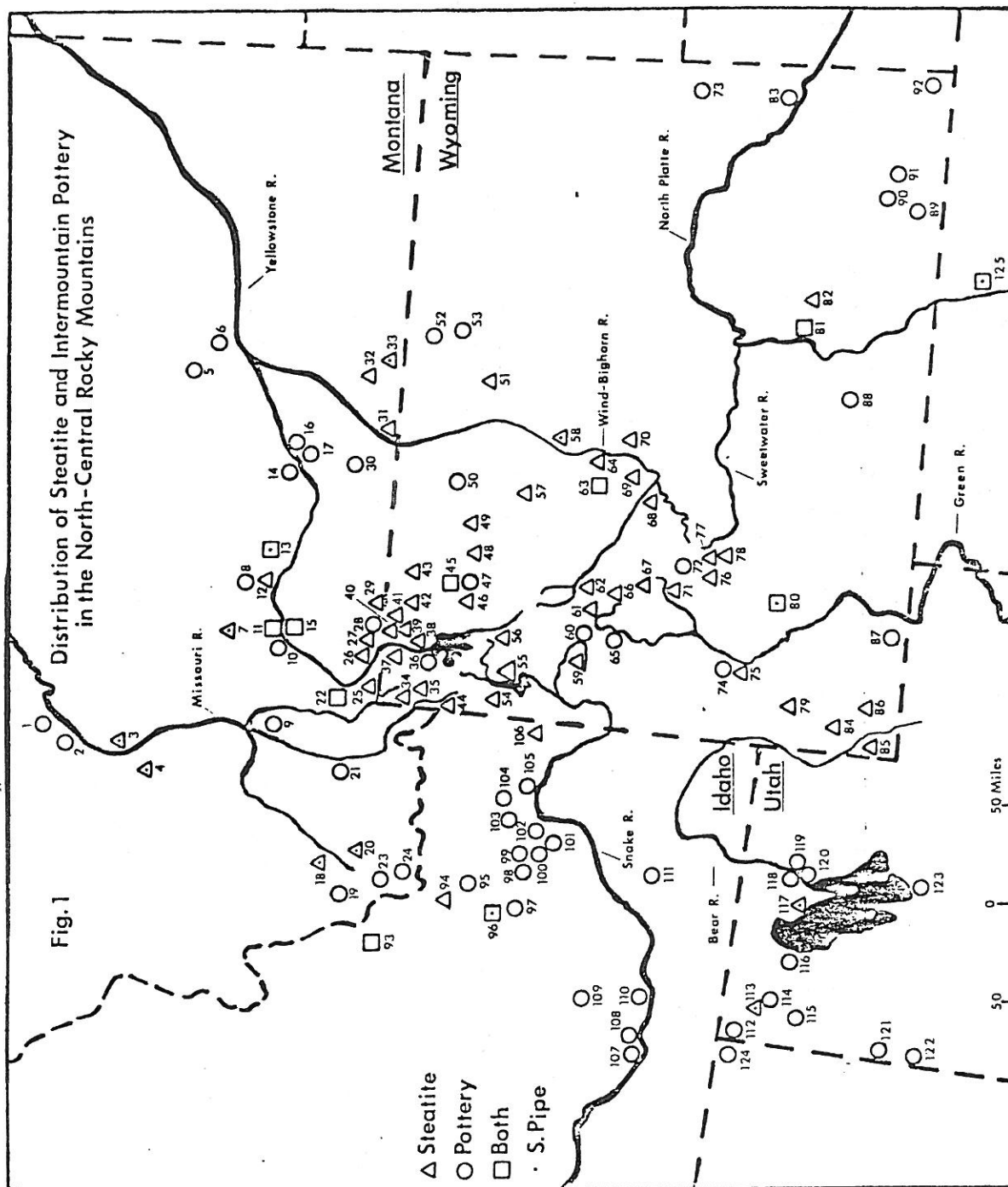


TABLE 1

Map #	Site #	Name	Steatite Vessel	Pipe	Pottery	Elev.	Setting	Source
<u>MONTANA</u>								
1		Great Falls			Int			A. Kehoe (1959)
2					Int			Keyser (1975)
3				X				"
4				X				"
5		Razor CR.			Int	3200*	Riv. 2	W. Mulloy (1958)
6		Pompey Pillars			Int	3200*	Riv. 1	"
7	24PA509	Horse CR.		X		5000	Riv. 3	"
8	245W208	Buffalo Ranch			Int	4800	Riv. 2	G. Arthur (1966)
9	24GA314	Madison Kill			Int	4400	Riv. 1	L. Napton (1965)
10		Livingston			Int	4491	Riv. 1	W. Mulloy (1958)
11	24PA324	Art Miles	X		Int	5600	Riv. 3	G. Arthur (1966)
								L. Napton (1965)
12	24SW402	Sweet Grass	X			4000	Riv. 3	S. Conner (1965, 1966)
13	24SW402	Six Shooter		X	I,M	4800		H. Hagen (1968)**
14		Chamberlain			Int	3600*		W. Mulloy (1958)
15	24PA504	Myers-Hindman		Bead	Int	5180	Riv. 2	L. Lahren (1976)
16	24YL1	Pictograph			I,M	3200*	Riv. 2	W. Mulloy (1958)
17		Empty Gulch			I,M	3100*	Riv. 2	"
18				X				Keyser (1975)
19					Int.			"
20				X				"
21	24MA301	Jeffers			Int	5200	Riv. 3	L. Napton (1965)
22	24PA308	Emigrant	X		Int	5440	Riv. 2	Brown (1932)
23					Int			Keyser (1975)
24					Int			"
25		Devil's Slide	X			5450*	Riv. 1	W. Wedel (1954) AMNH 20.2/3826
26		Gardiner	X			5400*	Riv. 1	NMNH
27		Deckard Fl.	X			6200*	Riv. 2	Y.N.P. #9963
28	24PA301	Eagle CR.			Int	6250	Riv. 2	G. Arthur (1966)
								L. Lahren (1971)
29		Hell Roaring	X					Y.N.P. #11674
30		Pryor Gap			I,M	5000*	Riv. 3	W. Mulloy (1958)
31		Devil's Canyon	X			5000*	Riv. 1	Black & Jones (1911)
32			X					F. Larocque - 1805
33	24BH406	Kobold		X	MAN	4480	Riv. 2	G. Frison (1970)
			9	7	20			
<u>WYOMING</u>								
34	48YE478		X	X		7000	Riv. 2	L. Napton (1958)
35		Bacon Rind	X			7200*	Riv. 2	Y.N.P. #1993
36	48YE449	First Blood			Int	7750	Lac.	Hoffman (1959)**;
37		Mammoth	X			7000*	Spring	USNM #170688
38		Canyon	X			8000*	Riv. 2	Y.N.P. #7052
39		Pleasant Val.	X			6400*	Riv. 2	P. Norris (1881)

TABLE 1

Map #	Site #	Name	Steatite Vessel	Pipe	Pottery	Elev.	Setting	Source
40		Blacktail CR.	X		Man	6800*	Riv. 2	P. Norris (1881); D. Taylor (1964)
41		East Fork	X			6100*	Riv. 2	Y.N.P. #10348
42		Soda Butte	X			7600*	Riv. 3	P. Norris (1881)
43		Canoe Lk.	X			9200*	Lac.	Y.N.P. #6916 Replogle (1956)
44		Madison Can.	X			7000*	Riv. 2	P. Norris (1881)
45	48PA201	Mummy Cave		Bead	Int	7200	Riv. 2	W. Wedel (1954)
46	48PA325	Goff CR. 8	X			7000	Riv. 2	B.B.H.C. #SB-1
47		Goff CR.			Int	7000	Riv. 2	W. Wedel (1954)
48		Elk CR.	X			7000	Riv. 2	B.B.H.C. #SB-1
49	48PA43	Whit CR.	X			7000	Riv. 3	S. Hughes
50		Hargreave			Int	5800*		W. Mulloy (1958)
51		Lk. Solitude	X			10500	Riv. 3	W. Wedel (1954) USNM #282340 G. Frison (1976)
52		Big Goose CR.			I,M	4160		"
53	48J0312	Piney CR.			I,M			
54		Carrott Knoll	X			8600	Lac.	F. Nielson (N.D.)
55	48TE509	Lawrence	X	X		6740	Lac.	W. Lawrence (N.D.)
56		Two Ocean	X			9100	Lac.	M. Turner (N.D.)
57	48H08	Gooseberry	X			5500	Riv. 2	Zeimans & Lonenecker**
58				X				G. Frison (1970)
59		Gros Ventre	X					S. Lawrence (N.D.)
60	48SU317	Wagon CR.			Int	8000*	Riv. 2	G. Frison (1974)
61		Green Rn. Lk.	X			8200	Lac.	"
62		Torrey CR.	X	X				W. Wedel (1954); AMNH Catalog Bliss (1950)
63	48FR54	Birdshead	X		Int	5200	Spring	N.M.N.H. #429258
64		Boysen	X					C. Love**
65	48SU349	Trappers Point			Int	7000	Riv. 1	G. Frison (1974)
66	48SU322	Faler Lk.	X			10200	Lac.	"
67	48SU331	Halfmoon Lk.	X			8000	Lac.	
68		Ft. Washakie	X			6000*	Riv. 2	S. Lawrence (N.D.)
69		Pilot CR.	X			5000*	Riv. 2	B.B.H.C.
70		Lysite	X			5000*	Riv. 2	"
71	48SU332	Boulder Lk.	X			7400*	Lac.	G. Frison (1974)
72	48SU376				Int	7200	Spring	C. Love**
73	WX-1	Lusk			Int	5015*		E. Renaud (1932)
74	48SU1	Birch Can.			Int	7200	Riv. 2	Dibble & Day (1962)
75		Fontenelle	X			6700	Riv. 1	"
76		Pacific CR.	X			8000*	Riv. 2	W. Wedel (1954); AMNH 20.0/3587
77		Oregon Butte	X			8000*	Spring	E. Renaud (1932)
78		Oregon Butte	X			8100*	Spring	"
79	48LN346		X		Fre	7600	Riv. 3	L. Lindsay (1975)
80	48SW304	Eden-Farson		X	Int	6500		G. Frison (1971)

TABLE 1

Map #	Site #	Name	Steatite Vessel	Pottery	Elev.	Setting	Source
86		Mountain View	X		6795*		A.M.N.H. #20.2/2002
87		Flaming Gorge		Int			Day & Dibble (1963)
88	48CR303	John Gale		Int	7140	Spring	Brox & Miller (1974)
89		Red Buttes		I,UR	7300*		W. Mulloy (1958)
90		Horned Owl		Int			Gebhard (1964)
91	WR-4	Coyote Can.		Int			E. Renaud (1932)
92		Seven Mile		I,UR	5047*		"
			39	5	21		
<u>IDAHO</u>							
93		Lemhi Riv.	X	Int			Thwaites (1904-06)
94	10BT62	Sawmill		Bead	7450	Spring	E. Swanson (1964b)
95	10CL100			Int	6200	Spring	"
96	10BT51	Desert Zone	X	Int	5100	Riv. 2	"
97		Pioneer Basin		Int	4700		B. Butler (1979)
98	10JF4			Int	4800	Lac	Bryant & Bonnichner**
99	10JF5			Int	4800	Lac	"
100	10JF10			Int	4800	Lac	J. Echo
101	10JF11			Int	4800	Lac	"
102	10JF1			Int	4800	Lac	B. Butler
103	10JF9			Int	4900		"
104	10JF40			Int	4849	Lac	Kingsbury & Tucker**
105	10JF24			Int	4790	Riv. 2	Roberts & Tucker**
106		Tetonia	X		6200*		W. Wedel (1954)
107		Glenn's Ferry		Int	2556	Riv. 1	Tuohy (1956)
108		King Hill		Int		Riv. 1	"
109	10JE6	Wilson Butte		Int	4300		R. Gruhn
110		Pence-Duerig		Int			B. Butler
111	10BM50	Poisen CR.		Int			"
			2	1	17		
<u>UTAH</u>							
112		Swallow		I,F	5800		G. Dalley (1976)
113		Tube Cave	X		5300		"
114		Remnant Cave		I,F	4825		"
115		Slave Cave		Int			Fowler (1968)
116		Hogup Cave		I,F	4300	Lac	C. Aikens (1970)
117		Promontory	X		4200		J. Steward (1937)
118		Bear Riv. 1		I,F	4300	Riv. 1	C. Aikens (1966)
119		Bear Riv. 2		I,F	4300	Riv. 1	Fry & Dalley (1979)
120		Bear Riv. 3		I,F	4300	Riv. 1	Shields & Dalley (1978)
121		Danger Cave		I,F	4250		Jennings (1957)
122		Wendover		Int	4246		Tuohy (1956)
123		Black Rock		Int	4300	Lac	Enger (1950)
			0	2	10		

TABLE 1

<u>Map #</u>	<u>Site #</u>	<u>Name</u>	<u>Steatite Vessel Pipe</u>	<u>Pottery</u>	<u>Elev.</u>	<u>Setting</u>	<u>Source</u>
<u>NEVADA</u>							
124		Thomas		I,F	6800		G. Dalley (1976)
<u>COLORADO</u>							
125	4LR200	T-W-Diamond	X	Int	6220		Flayharty & Morris (1974)
TOTALS			50	16	70		

* Elevation estimated from U.S.G.S. 1:250,000 Quad Sheets

** State Archeological Survey Files

¹Buffalo Bill Historical Center (Catalog Files) (B.B.H.C.), Cody, Wyoming

Y.N.P. - Yellowstone National Park Museum, Mammoth, Wyoming

U.S.N.M./N.M.N.H. - Smithsonian Institution, Washington, D.C.

A.M.N.H. - American Museum of Natural History, New York, New York

TABLE 2

Distribution of Steatite Vessels and Intermountain
Pottery About Origin

Site Frequencies

	<u>Steatite</u>	<u>Pottery</u>	
LE. 50 mi.	13 (7)	3 (9)	16
51-100	15 (10)	9 (14)	24
101-150	13 (15)	22 (20)	35
151-200	5 (5)	8 (8)	13
201-250	2 (7)	15 (10)	17
Gt. 250	2 (6)	13 (9)	15
	<u>50</u>	<u>70</u>	<u>120</u>

$\chi^2 = 26.16$: Reject H_0 @ 0.001

NOTE: Expected frequencies in parentheses

TABLE 3

Distribution of Steatite Vessels and Intermountain
Pottery by Altitude

Site Frequencies

	<u>Steatite</u>	<u>Pottery</u>	
LE. 4999	1 (13)	29 (17)	30
5000-5999	10 (9)	11 (12)	21
6000-6999	11 (8)	6 (9)	17
7000-7999	10 (8)	8 (10)	18
GT. 8000	12 (6)	1 (7)	13
	<u>44</u>	<u>55</u>	<u>99</u>

(\bar{X} =6941;SD=1421)

(\bar{X} =5192;SD=1292)

$\chi^2 = 36.41$:Reject H_0 @ 0.001

TABLE 4

Distribution of Steatite Vessels and Intermountain
Pottery by Riverine Setting

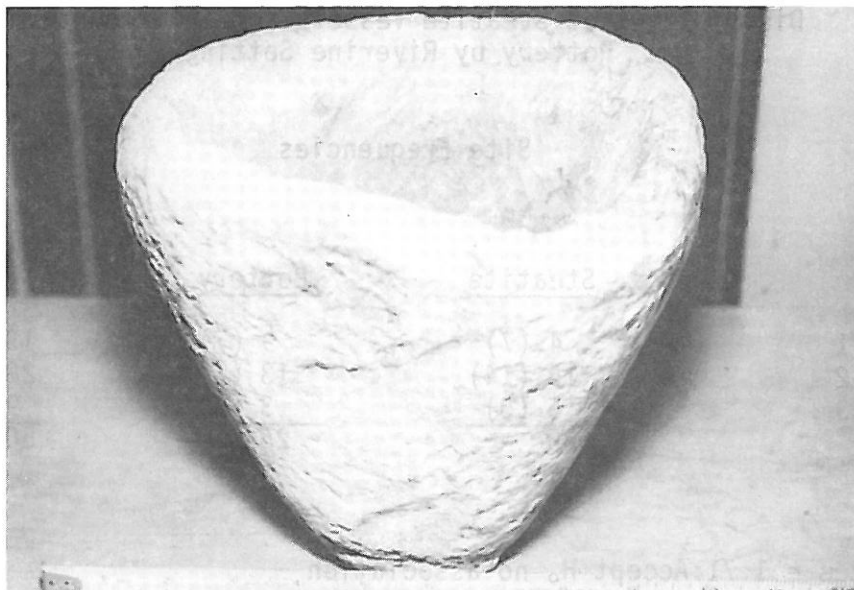
Site Frequencies

	<u>Steatite</u>	<u>Pottery</u>	
Riverine 1	4 (7)	9 (7)	13
Riverine 2	15 (14)	13 (14)	28
Riverine 3	6 (5)	3 (5)	9
	<u>25</u>	<u>25</u>	<u>50</u>

χ^2 Yates = 1.71:Accept H_0 no association

Note: Elevation Means

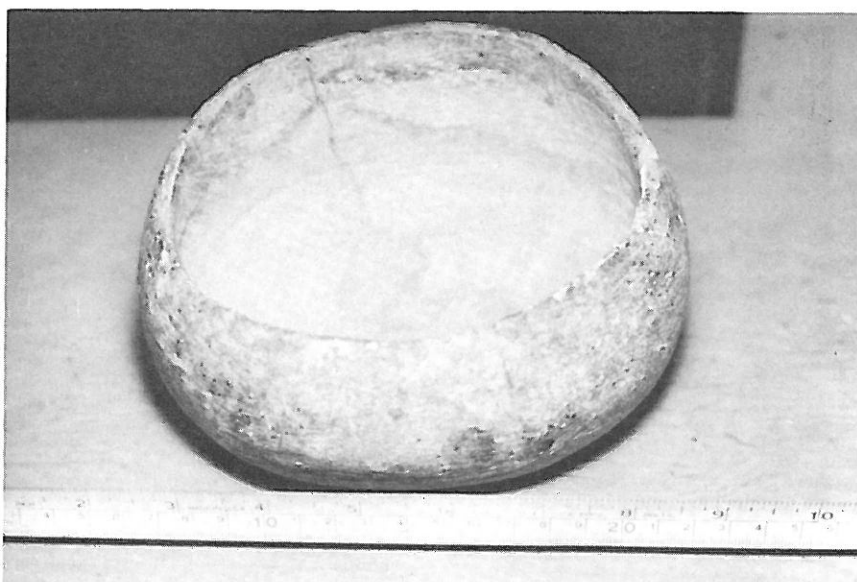
	<u>Steatite</u>	<u>Pottery</u>
	<u>Mean S.D.</u>	<u>Mean S.D.</u>
Riverine 2	6515 938	5459 1672
Lacustrine	8430 1093	5022 1046



S. Lawrence Collection: Jackson Lake #12



S. Lawrence Collection: Jackson Lake #10



S. Lawrence Collection: Gros Ventre #9



S. Lawrence Collection: Jackson Lake #8



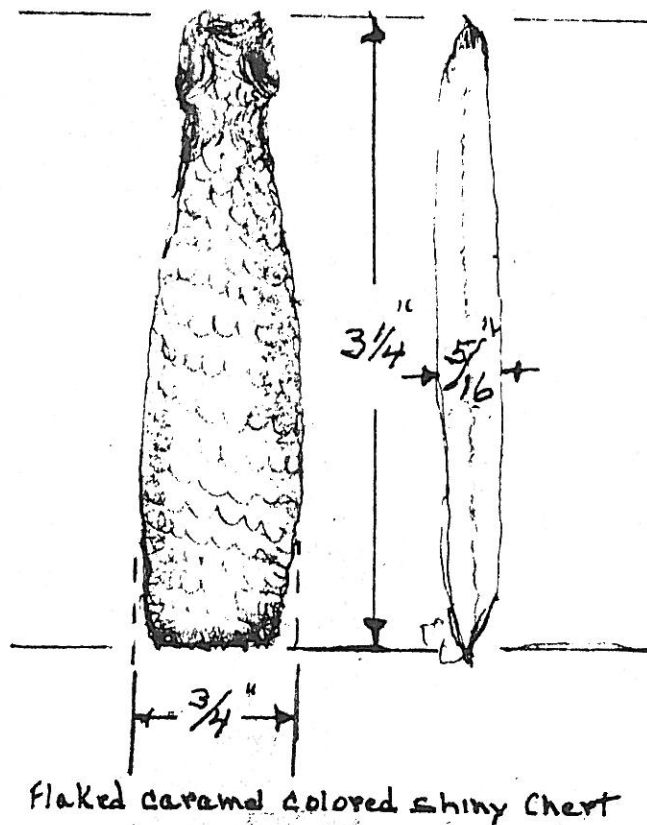
S. Lawrence Collection: Jackson Lake #6



S. Lawrence Collection:
 (LEFT) Jackson Lake #8
 (LEFT CENTER) Jackson Lake #7
 (RIGHT CENTER) Jackson Lake #6
 (RIGHT) FT. WASHAKIE #5

Dr. Farish Jenkins, Jr., a Harvard University paleontologist, was the leader of a team who discovered evidence of a previously-unknown mammal's existence. Dr. Jenkins and his team of researchers found the fossil of a mammal which was estimated to be about the size of a mouse last summer on a Navajo Indian Reservation in Arizona. The discovery was important because the fossil is believed to date back to the Late Triassic period, and is the first discovery of a mammalian fossil from that time period to be found in America. Previously, there were so few fossil finds in the world, Dr. Jenkins stated they could all fit into half of a shoe box, which makes a new discovery especially exciting. He noted this discovery would probably prompt more intense research into early mammals in North America as it gives man one more clue as to the earliest existence of mammals and their evolution. Dr. Jenkins reported the team's findings last September in an announcement at the National Geographic Society in Washington, D.C., which financed his research.

WATISIT??

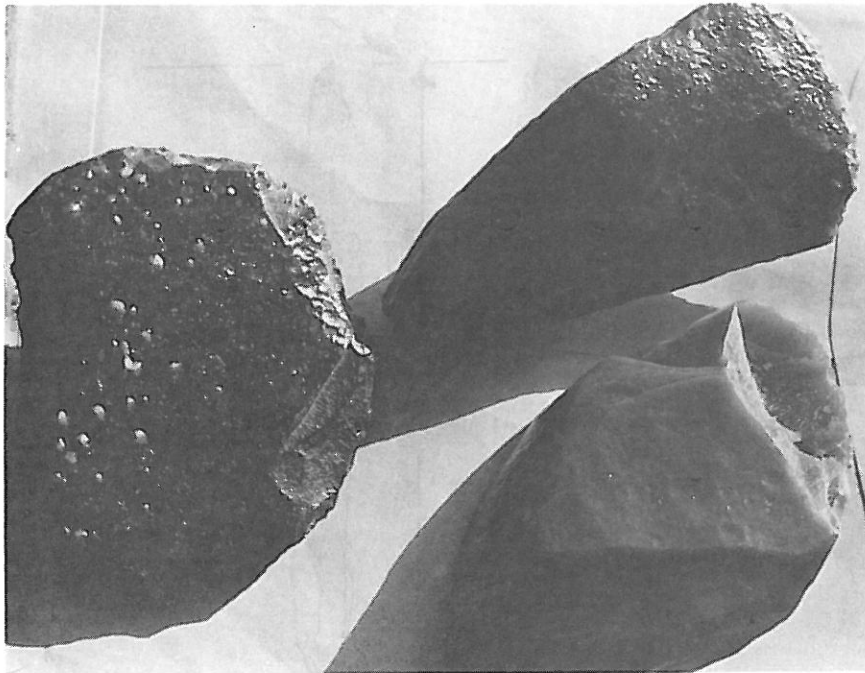


ARCHAE ANNIE

Several years ago, Archae Annie asked if anyone had seen or knew of Indian artifacts from jade. The picture shows three from an "unknown" contributor and an "unknown" source. The extreme density of this material makes any fracturing very difficult, so these artifacts are quite rare. The specimen lower right in the photograph is gem quality jade.

The unidentified artifact submitted by Jo Heckart from Laramie comes from the Big Sandy area somewhere near Pinedale. There are some thoughts that it may be a reworked tool.

Any conjecture on either jade artifacts or the "what is it" will be welcomed by Archae Annie.



PRIMITIVE CAMPING AT CAMP PALEO

JULY 16, 17, & 18, 1982
SARATOGA, WYOMING
FEE - \$2.00 PER CAMP SITE

Camp Paleo will open at noon Friday, July 16, 1982.

Bring everything you will need, including water and take your garbage when you leave. Firewood will be provided. Since campsites are limited, ensure a spot for your sleeping bag, tent, camper or trailer by registering by July 2, 1982. The fee is \$2.00 per campsite for the three days, to be paid when you make your reservation.

CAMP PALEO PROGRAM

Friday - Free time. Target area for atlatl practice at camp.

Saturday - Morning - Flintknapping demonstration at Folk Fair

Afternoon - Atlatl contest at Folk Fair

Evening at Camp - No Host Happy Hour -- Grasshopper bread, hors d'oeuvres made and served by Early Women (Happy means whatever)
Atlatl Contest Winner Awards

Pot Luck Supper - Everyone bring a dish, jar or package of something for the buffet table. Bring whatever meat you want to cook over the charcoal grills provided. If you have a portable grill and/or a fold-up table, bring that, too.

Camp fire - Early Man discussion

Clip reservation and send \$2.00 camp fee to Archaeology-Box 703-Saratoga, Wyoming 82331

RESERVATION FOR PRIMITIVE CAMPING SITE AT CAMP PALEO - FEE \$2.00

NAME: _____

ADDRESS: _____

NUMBER OF PEOPLE IN PARTY: _____

I WILL PARTICIPATE IN THE FOLLOWING. PLEASE CHECK.

ATLATL CONTEST _____ FLINTKNAPPING _____
CRAFT DEMONSTRATION OR SALES - (WHAT) _____

Updated information and map to camp will be mailed to those reserving camp-site by paying \$2.00 fee by July 2.