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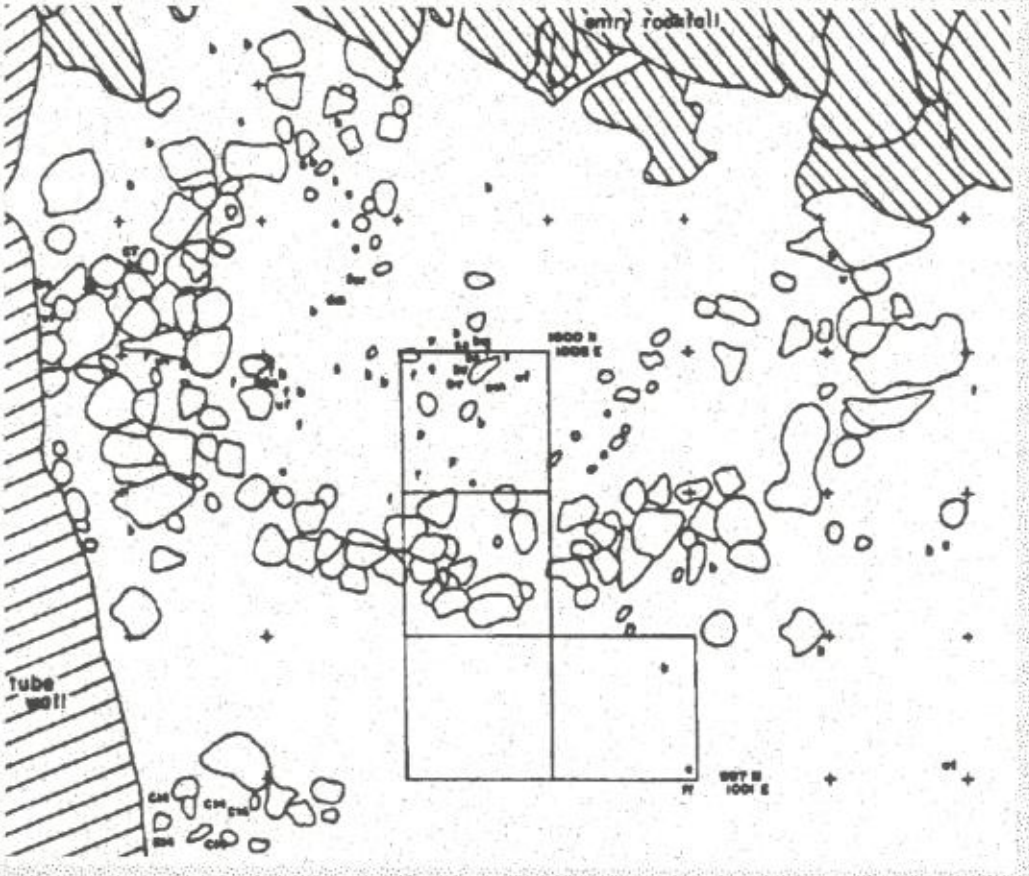

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Cover: Aviators' Cave Plan Map.

CONTENTS

ARTICLES AND REPORTS

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SOUTHEASTERN IDAHO PREHISTORY: STATUS AND STASIS

by E. S. Lohse and D. Sammons
Idaho State University

The basic prehistoric sequence for the Holocene in southeastern Idaho has been defined by previous archaeological research. Investigators have identified the requisite temporal axes for time and space that form the culture historical context for archaeological sites and assemblages. Distinctive artifact types and artifact assemblages from this region have been assigned to the Great Basin, Columbia Plateau, and Northwestern Plains cultural areas dependent upon age and location. Professional publications and theses have been few, and most recent information finds distribution in volumes of cultural resource management compliance drafts and areal overviews. Indeed, most archaeological work has been and will continue to be driven by contract funding. This has resulted in little or no agreement among Idaho archaeologists on definition of an overall research framework or on how to define the building blocks to develop a usable regional chronology.

An overwhelming emphasis on cultural resource management projects has also conditioned archaeological research that is out of step with the latest cultural and methodological developments in our constantly changing science. Past, and even recent, research has often ignored entirely questions of past cultural adaptedness and technological and social change. Field research routinely disregards methodological and technical innovations as too expensive or unnecessary to meet contract specifications. Research questions have not been phrased with regard to understanding the behavior of past cultural systems, nor have directions been established that explicitly aim to fill in missing information for cultural historical sequences or culture historical interpretations. Interpretive problems are ignored, characteristically overlain by pragmatic constraints imposed in culture resource management plans. Most often, archaeological research has refused to address the legitimate and compelling needs for organization that would frame research goals and questions in a regional, areal, or state-wide plan. With no overall direction, archaeology proceeds piecemeal, and the pieces cannot be assembled since there is no coherent or overriding plan to direct and integrate work. Southeastern Idaho is certainly not unusual in this regard; unfortunately, it is all too typical.

B. Robert Butler's (1986) summary is the latest seminal published overview on southeastern Idaho prehistory. Butler's cited sources are dated, however, and there is an urgent need to recast this regional synthesis with more current information. Our paper attempts to supply a reasonable supplement, citing important unpublished and published references to recent archaeological work in this region. Many archaeological reports languish as grey literature in the form of descriptive contract reports, compliance statements, and unpublished MA theses and student papers. We have provided a guide to these sources elsewhere (Sammons n.d.). Our explicit purpose here is to provide the reader with a review of the status of archaeological research in this region and a brief summary of some analysis in progress.

THE PREHISTORIC CULTURAL SEQUENCE

Prehistoric human occupation of southeastern Idaho ranges from the terminal Pleistocene-Holocene transition to the time of Euroamerican contact. The landscape at that time was fairly comparable to that of today. We can postulate that ten thousand or so years ago the Snake River Plain and surrounding mountain ranges had attained essentially their modern appearance. Differences for the modern viewer would be largely confined to the relative elevations of shifting tree lines and proportional compositions of dominant vegetation communities (cf. Madsen 1982; Mehringer 1986). Relict populations of Pleistocene animals were present early in the period of human occupation but species distributions soon approximated modern distributions. River drainages and water sources were fairly well established and generally consistent throughout the span of the Holocene. The economic bases of prehistoric societies therefore would have required very little modification throughout the last ten thousand or so years. Consistent resource arrays on a relatively unchanging physical landscape would have necessitated little need for significant shifts in human logistical organization. Prehistoric aboriginal economies would likely have been generalizing hunter-gatherers regardless of proscribed cultural period. Given this systemic perspective, any postulated differences in the archaeological record should be interpreted as short term

shifts in economic organization predicated on seasonal adaptation to local microenvironments or the result of arbitrary cultural preferences rather than fundamental changes in logistical organization predicated on significant shifts in the physical environment and attendant dimunition of emphasized resource arrays.

Earlier research did not attempt a comparable systemic viewpoint. Seminal work like Swanson's research in the Birch Creek Valley looked for changes in adaptation predicated on inferred environmental shifts over the span of the Holocene (Swanson 1972). Changes in the popularity of specific artifact types were held to indicate economic and cultural shifts. Such studies suffer from lack of scale to assess the likelihood of significant cultural reorganization. For instance, documented shifts in tree lines and changes in proportional species representation within relatively stable vegetation communities could not be expected to cause any appreciable cultural reorganizations among prehistoric societies geared to broad spectrum exploitation of arid, high elevation environments. These groups did not specialize in exploitation of discrete resource arrays, and consciously maximized economic return for effort expended. Their exploitive system was so flexible that it was adapting year to year and season to season, employing different mapping strategies as needed. The kinds of environmental changes documented for this region should never have been noticable within a human generation let alone seasonally, and the consistently successful cultural adaptions should never have felt significant stress or have had to alter basic socioeconomic organization. A conservative modelling viewpoint would assert that we should expect little prehistoric cultural reorganization, and not marked reorganization as proposed by earlier researchers.

Other concerns with Swanson's (1972) work are largely methodological. His temporal sequence was based on excavations in deeply stratified Bison and Veratic Rockshelters at the southern extent of the Birch Creek Valley. While assigned dates for cultural diagnostics have held up under scrutiny in subsequent research , the basic cultural historical reconstruction has been largely discredited. A primary problem with Swanson's (1972:35-63) work lies in his fieldwork methodology wherein cultural features and occupations were lumped stratigraphically within gross natural depositional units, and the cultural phases *a priori* made synonymous with inferred climatic and accompanying erosional cycles (Figure 2:a and c).

An equally critical problem is Swanson's assertion that the "Bitterroot Pattern" which encompassed the last eight thousand or so years of the prehistoric sequence is attributable to Shoshonean occupation of the region. Swanson argued that lack of significant changes in prehistoric material culture indicated continuous Shoshonean occupation from the historic present back into the early Holocene (Swanson 1972:67-68;197-210). However, there is simply no empirical justification for equating adaptive continuity with continuous occupation by a single population. Correlation of artifact types with specific linguistic and ethnic groups is a postulate to be tested. It is not a conservative position nor is it a factual statement. Correlating artifact types with cultural groups and then with proposed changes in vegetation associations and animal populations coincident with perceived climatic and environmental shifts is in no way support for cultural continuity in the record nor is it an explanation for shifts in cultural type preference (cf. O'Connell, Jones and Symms 1982).

Citing roots in Swanson's Birch Creek chronology, Butler (1986) defines three major cultural periods: Early Big Game Hunting, Archaic, and Late Archaic. The Big Game Hunting Period is argued to represent Plains-like Paleoindian economies in southeastern Idaho. Artifact types attributable to the Paleoindian period are common in southeastern Idaho, but early, well documented, and published Paleoindian sites are not found (see Titmus and Woods 1992). Sites like Owl Cave (Miller 1982, 1983, 1989; Miller and Dort 1978) have some meager indications of this early presence but lack the published documentation necessary to be accepted as firm evidence of Paleoindian economies and cultural organization. Surface finds of Paleoindian diagnostics, while common, are mute on issues of prehistoric socioeconomic organization. Butler (1986) argues that this period documents cultural adaptations focused on hunting large extinct Pleistocene game. He includes as species taken *Mammuthus, B. antiquus,* and *Camelops.* Modern species taken include *Ovis, Cervus* and *Odocoileus.* He notes Clovis period occupations at Jaguar Cave (Sadek-Kooros 1966) and at the Simon cache site (Butler 1963). The Folsom period is argued to be represented at Owl Cave (Butler 1978; Miller 1982). Plano period sites listed include Owl Cave and Veratic Rockshelter (Butler 1978; Swanson 1972). However, none of these sites offer definitive Paleoindian site contexts. Jaguar Cave lacks reasonable provenience and is suspect at best. The Simon cache, while intriguing, offers no clues on prehistoric economy. Owl Cave has sparse pre-Plano levels with four fluted point fragments in association with elephant, bison and camel bones. The Plano period occupations are better represented, as in the *B. antiquus* kill dated c.8000 B.P. (Butler, Gildersleeve and Sommers 1971).

The Archaic and Late Archaic Periods in this region are far better represented in a number of acceptably excavated prehistoric sites. In these periods we can argue that prehistoric logistical economy emphasized a generalizing hunting and gathering strategy predicated on the seasonal harvesting of locally abundant resources. Regardless of associated projectile point styles and temporal period, prehistoric societies seem to have taken a consistent array of resources in a consistent range of environments.

Shortly after about 8000 B.P., lanceolate projectile point types were replaced by stemmed-indented base or Pinto forms and Bitterroot or Northern Side-notched varieties. The stemmed-indented base projectile point may be the older, since it was found in deposits immediately overlying the Late Plano occupation at Owl Cave, and dated c.7750 B.P. Northern Side-notched type varieties enter the archaeological record at Wilson Butte Cave c.6500 B.P. (Gruhn 1961) and at Veratic Rockshelter in strata estimated to range in age from about 8200-3450 B.P. (Swanson 1972). An excellent stratigraphic context is preserved for Northern Side-notched points at the Jimmy Olsen Rockshelter (Fig. 2:b and d), where characteristic forms were found in multiple activity surfaces lying just above redeposited layers of ash. The bottom two activity

surfaces were radiocarbon dated at c.5420 and 5300 B.P. (Lohse 1993).

Reed et al. (1986) divide the Archaic Period into three subperiods: Early Archaic (7500-5000 B.P.), Middle Archaic (5000-3500 B.P.), and Late Archaic (3500-1300 B.P.). These are defined solely on the basis of shifts in the popularity of projectile point types. Reed et al. (1986:110) argue that the Archaic coincides with the Altithermal climatic shift toward warmer and drier conditions. They postulate that the warming trend prompted Plains bison hunting societies to move into the upper Snake River Basin, where these hunters began to hunt mountain sheep as well. Butler (1978) speculates that as the Altithermal reached its maximum c.3800 B.P., grasses essential to support large bison herds failed, and these bison hunting populations experienced dietary stresses prompting shifts to a more generalizing strategy. None of these postulated shifts has been documented in changing elements of prehistoric socioeconomic organization, and remain speculation based solely on the inferred relative importance of noticeable changes in the popularity of prehistoric projectile point styles.

The Late Period may be the best represented in southeastern Idaho prehistory, and most likely represents Shoshonean occupation of this region. Occupations at this time carry the three prominent Shoshonean hallmarks: Intermountain Ware pottery, small corner- and side-notched projectile points indicative of the bow-and-arrow, and the so-called Wahmuza Lanceolate point (Holmer 1994; Lohse 1994). Several radiocarbon dates from Dagger Falls on the Middle Fork of the Salmon River for Intermountain Ware sherds places the earliest known use of pottery in this region at c.2000 B.P. (Torgler 1993a, 1993b). Dean (1988, 1991a, 1991b) has identified the temper in these sherds as crushed andesite, basalt, and quartzite, most like sherd profiles generated for Thomas Shelter, Sudden Shelter, and Danger Cave in Utah. As an aside, Butler (1983, 1986) has argued that pottery sherds identified as Shoshonean in the past are actually attributable to Fremont, a Southwestern culture resident in Utah at the same time as Shoshonean occupations in this region. It now appears that the sherds identified by Butler as Fremont simply represent finer examples at one end of the Shoshonean Intermountain Ware tradition.

Shoshonean populations in the archaeological record of southeastern Idaho have been classified within the Ahvish Phase defined for cultural occupations at the Wahmuza site at Cedar Butte, Fort Hall Reservation (Holmer 1986b). This phase is thought to date from c.700 B.P. to the present. Cultural diagnostics include Desert Side-notched and Rosegate series projectile points and gray-ware pottery. Two pottery vessel forms have been identified: a crude flat-bottomed conical pot with a coarse surface finish and coarse temper like vessels of the Intermountain Ware tradition and a finely made globular bowl with finer temper. Comparable assemblages have been found in the Dietrich Phase occupation at Wilson Butte Cave (Gruhn 1961), and in the Lemhi Phase defined by Swanson et al (1964).

PROPOSED CULTURAL CHRONOLOGY

We have divided southeastern Idaho regional prehistory into three cultural periods: *Paleoindian, Archaic* and *Historic* (Lohse 1993, 1994a). These reflect the important general cultural shifts inferred by prior researchers (cf. Willey and Phillips 1958; Jennings 1986). Paleoindian is thought to represent a cultural adaptation somehow more focused on the acquisition of large game animals, particularly animals that became extinct at the Pleistocene-Holocene transition. Archaic refers to cultural adaptations thought to be more generalizing, with an emphasis on taking both large and small game and employing a strategy of broad spectrum exploitation of plants. Historic refers to changes wrought in aboriginal societies upon contact with Euroamerican cultures. These cultural divisions are strictly heuristic, defined to coincide with major stylistic shifts in projectile point types. This cultural chronology is an exercise separate from inferences in cultural historical reconstruction. We posit that the cultural historical framework is simply the temporal and spatial axes whose intersections serve to pinpoint artifact, assemblage, site, and culture contexts. Chronology is not the end goal; rather it is a necessity to approach fuller explication of the region's prehistoric sequence. This heuristic grid gives two dimensional context as the basis for multi-dimensional arguments that explicitly try to resolve questions about past human behavior. Three steps are involved then in the building of an improved prehistoric record for southeastern Idaho: (1) define the cultural chronology as two basic axes of time and space; (2) place artifact types and archaeological sites and assemblages within the basic chronological framework as postulates embodied in cultural historical reconstruction; (3) frame questions or hypotheses to direct future archaeological research into specified aspects of human behavior.

Lohse (1994a) has defined explicit rules for inclusion of diagnostic artifact types, sites and site assemblages in this multi-dimensionsal temporal and spatial framework. Diagnostic artifact types used to define regional cultural sequences for southeastern Idaho consist almost entirely of stone projectile point types. These have been defined qualitatively and quantitatively, but not within a rigorous analytical framework forcing recognition of appropriate research context. Southeastern Idaho spans three cultural areas: Great Basin, Plateau and Plains. Empirically defensible projectile point typologies have been established for the northern Great Basin (Holmer 1978, 1986a; Thomas 1981, 1983) and the Columbia Plateau (Leonhardy and Rice 1970; Lohse 1985) but not for the northwestern Plains (cf. Greiser 1984). A provisional correlation of these types for southeastern Idaho has been published as a synthetic section within Lohse (1993).

To move beyond simple two-dimensional plots of archaeological materials and sites in time and space, researchers must begin to modify their methodological approach and the kinds of research questions they frame. Archaeological sites must be seen as more than gathering grounds for artifacts. Archaeological research must aim at encoding pertinent information, not just the accumulation of artifacts. Data are created by researchers when they phrase their research questions, employ their excavation methodologies, and interpret the results of their excavations. We already know the temporal extent of

artifact types and can reasonably predict the composition of artifact assemblages given the time of their use and the location of their find site. Strictly historical questions are no longer pertinent nor compelling. Rather, researchers must begin to focus on the context of their finds, carefully and deliberately unraveling the nuances preserved in the accurate plotting of artifact locations and description of assemblage composition within patterned site deposits. We must begin to define and carefully expose activity surfaces or patterned distributions of artifacts within archaeological sites that have potential in better explicating the behavior of prehistoric societies and individuals in the performance of patterned tasks. We need to extract greater detail from archaeological sites at levels which allows us to understand the actual behavior and intent of prehistoric societies frozen in events preserved in the details of the archaeological record. If models of human behavior are to be tested in archaeology, the empirical arena will be defined by the identification of activity patterning in the archaeological record (cf. Binford 1980, 1983:75, 1987; Thomas 1989:167-168; Whallon 1973:266).

Archaeological sites selected for inclusion in definition of the cultural sequence actually represent single or multiple prehistoric activities at a specified point on the landscape. To be defined, these activities must be of sufficient intensity to structure site deposits or they may be slight but deposited within stable natural depositional units. This viewpoint does not emphasize deep, often utilized archaeological sites, which exhibit broad thick bands of cultural material within gross geological units. Rather, this schema emphasizes special purpose or rarely used archaeological site locations where prehistoric activities can be defined as discrete assemblages. These sites are found as single components of prehistoric human activity or as multiple components within single archaeological site locations.

Since the general cultural chronology for southeastern Idaho has been worked out, we can argue that the classic deeply stratified rockshelter is no longer the singularly significant site. Nor can age be the sole criterion of significance. Instead, archaeologists must retool their excavation methods to define activity loci and surfaces within stratified sites or to adequately assess patterning in shallow surface sites. Activity patterns must be defined in the field excavation whether as obvious cultural surfaces or as discrete, recognizable artifact distributions correlated with episodes of cultural and natural deposition if we are to unravel the actual behavior of past societies.

Elsewhere, I have presented a summary of recently excavated and seminal site assemblages in the two-dimensional cultural historical framework for southeastern Idaho (Lohse 1994:Table 7). Apparent is the lack of representative temporal and spatial coverage in spite of over thirty years of archaeological fieldwork. Lack of cohesion is the result of a complete lack of concerted research interest within an explicit analytical framework that attempts to prioritize acceptable knowns and accompanying lacunae. Over the past two decades archaeological research has been predominantly contract driven, and contracts have focused on the Snake River plain pursuant to compliance work for the Idaho National Engineering Laboratory (e.g., Ringe 1994), reservoir pool raises, and various highway and transmission line corridors.

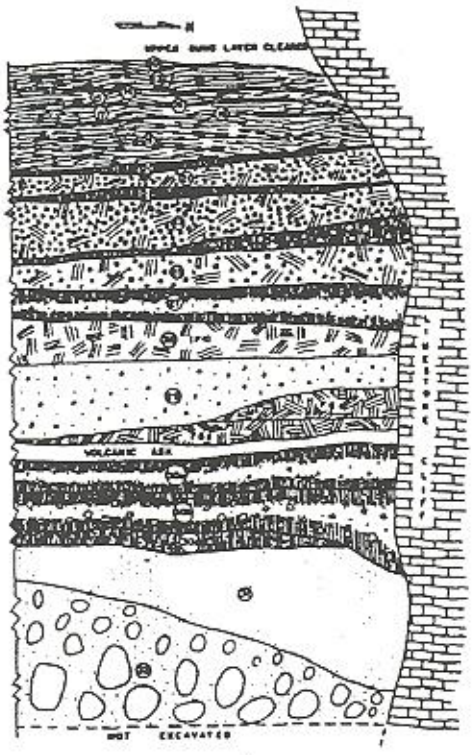
The distribution of areas receiving intensive survey attention simply does not match our knowledge of prehistoric and historic aboriginal land use patterns (Liljeblad 1972; Murphy and Murphy 1986; Steward 1938). For example, upland areas away from the Snake River drainage and the INEL portion of the Snake River Plain have not seen any sort of intensive or systematic investigation. Conversely, mountainous areas in the Salmon River country to the north receive significant levels of survey attention, but studies here are usually tied to land clearances and assessments. They lack the careful surface investigations or systematic subsurface testing necessary for adequate characterization of the archaeological resource beyond its simple placement within the accepted temporal-spatial reference frame. Worse yet, most of the region south and east of the Snake River Plain has never been examined under any sort of coherent interpretive plan.

Activity surfaces and preserved or frozen prehistoric behavior patterns are another research question to be examined (cf. Binford 1983, 1987). Empirical documentation for the occurrence of such contexts in the record has never been convincingly presented, and examination of archaeological assemblages from activity floors and surfaces must focus on demonstration of the validity of the concept of living floor or preserved behavioral context. Site assemblages should be examined under the following conditions: artifact assemblages selected are those found in a defined cultural context in direct association with recognizable cultural features in a stable depositional environment; all artifacts are analyzed within a single consistent classificatory system that aims at producing comparable data sets under explicit analytical assumptions (cf. Lohse 1994); artifact assemblage analysis must include all artifactual and ecofactual artifact classes within the behavioral context defined; analysis must focus on detailed description and classification of microscopic attributes of wear and manufacture and identification of organic floral and faunal remains within the context of the defined physical environment at the time of prehistoric occupation.

Recent research has begun to address these inequities, focusing on excavation of singular sites with exceptional context that offer evidence of the actual behavior of prehistoric societies. Idaho State University has begun to emphasize problem-centered investigation aimed at filling in gaps in the extant interpretive framework for Idaho prehistory, and emphasizing sampling of archaeological sites with unusually productive stratigraphic and spatial context that promises information on past human behavior and physical ecology of past environments. Three of these sites will be briefly summarized here. None have been completely analyzed, but all promise insights essential for our understanding of past aboriginal societies.

Jimmy Olsen Rockshelter:

In the summer of 1990, the Idaho State University archaeological fieldschool intensively tested a small rockshelter located about one-quarter mile south down the cliff face from the Bison and Veratic Rockshelters excavated by Earl Swanson as part of his Birch Creek research program in the 1960s (Swanson 1972 for summary;



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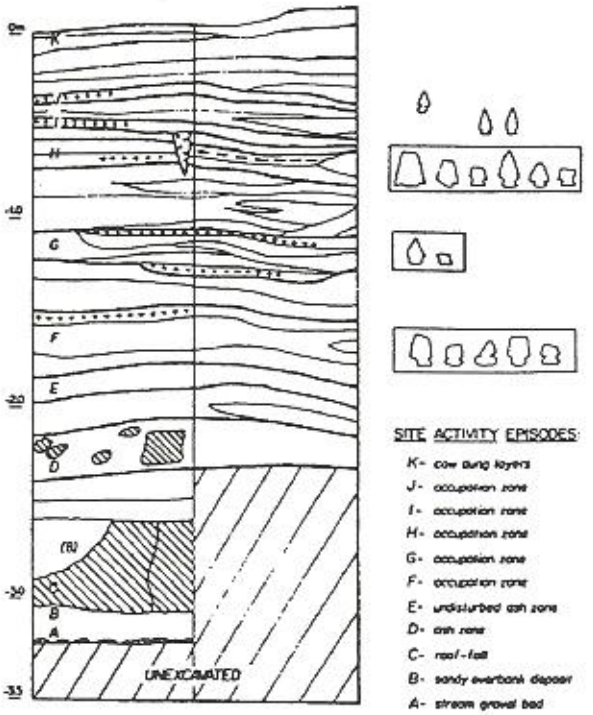


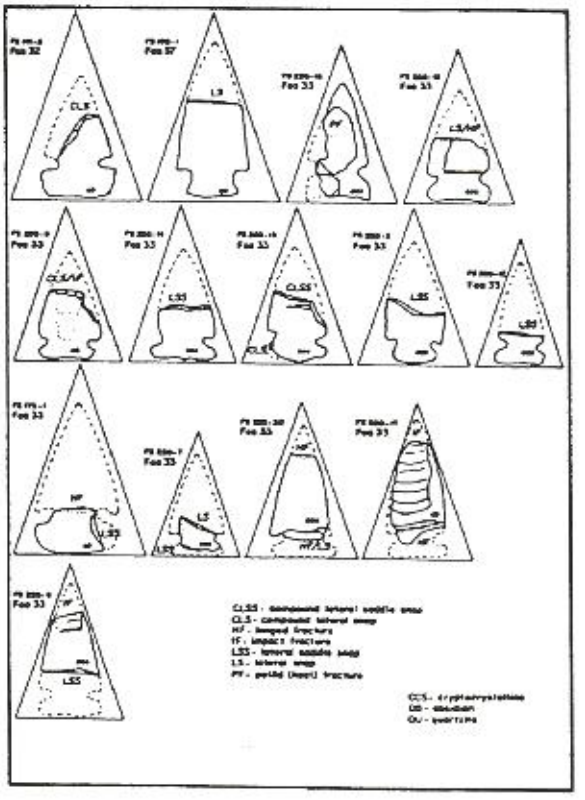
B

TABLE 2

NUMBER and FREQUENCIES OF POINT TYPES at 10-CL-3

DESCRIPTION	BLUE DOME PHASE IV (19-25)			BEAVER-HEAD PHASE III (14-18)			INTERCEPT PHASE II (11-13)			BIRCH CREEK PHASE Ib (10a)			BIRCH CREEK PHASE Ia (10a-3a)			TOTALS	
	NUMBER	% ACROSS	% DOWN	NUMBER	% ACROSS	% DOWN	NUMBER	% ACROSS	% DOWN	NUMBER	% ACROSS	% DOWN	NUMBER	% ACROSS	% DOWN	NUMBER	% DOWN
LANCEOLATE POINTS (10)																	
A. BIRCH CREEK POINTS (9)																	
VARIETY A (9)										3	33	8	7	77	55	9	5
VARIETY B (10)							4	40	3	6	60	32				10	5
VARIETY C (10)																	
SUB-VARIETY 1 (10)				3	30	7	4	40	3	3	30	11				10	5
SUB-VARIETY 2 (6)				1	33	4	2	33	2	3	50	11				6	3
B. TRIANGULAR-MACCAIA POINTS (3)																	
VARIETY A (3)										1	33	4	2	67	15	3	1
VARIETY D (1)							1	100	1							1	5
VARIETY E (1)							1	100	1							1	5
VARIETY O (2)										2	100	8				2	1
III TRIANGULAR LANCE-SHAPED POINTS (5)							5	100	3							5	2
IV CORNER NOTCHED POINT (1)													1	100	8	1	5
SIDE-NOTCHED POINTS (104)																	
I. BEAVERHEAD POINTS																	
POINTS (69)																	
VARIETY A (59)	1	2	12	7	64	3	21	50	13							34	32
VARIETY B (10)	11	92	36	1	5	7	8	40	4							20	6
II. DIVERGENT SIDE-NOTCHED POINTS (55)	7	6	10	9	6	50	54	41	26	3	3	11	3	3	16	85	34
III. BIRCH CREEK SIDE-NOTCHED POINTS (4)	3	72	43	1	33	7										4	2
STEMMED POINTS (35)																	
I. MARGINAL OR BASAL LANCE POINT (1)													1	100	8	1	5
II. STEMMED INDENTED BASED POINTS (31)	4	14	6	10	34	53	13	46	7	1	4	4				28	8
CREEK NOTCHED POINTS (6)																	
I. BASAL GRIND NOTCHED POINTS (20)	14	70	31	5	25	11				1	5	4				20	6
II. SHARPLY BARBED CORNER NOTCHED POINTS (31)	16	52	30	2	7	5	2	7	1	1	3	4				31	9
III. ELKO EARED POINTS (19)	1	2	13	8	34	19	21	63	11	3	7	11				33	10
IV. ELKO CORNER NOTCHED POINTS (3)																	
POINTS (3)	1	33	13	1	33	3										3	1
TOTALS	108	33	100	44	13	100	95	29	100	46	14	100	13	4	100	324	100

C



D

Figure 1. Birch Creek Rockshelters (Swanson 1972) and Jimmy Olsen Rockshelter. A. Stratigraphic profile from Veratic Rockshelter. B. Stratigraphic profile from Jimmy Olsen Rockshelter. C. Number and frequencies of point types at Veratic Rockshelter. D. Examples of broken Northern side-notched points, Jimmy Olsen Rockshelter.

Lohse 1991). The Bureau of Land Management, Idaho Falls District, requested that we test the rockshelter because of intense looter activity that revealed stratified cultural deposits to a depth of at least 1.5m. Looters had reamed out a large circular hole within the shelter of the overhanging cliff face that exposed thick strata heavy with artifacts, organic stain and fragmented and fractured faunal material. Their crude excavation also revealed that the sheltering overhang appeared to dive farther back as excavation proceeded downward. Recovered artifacts ranged from historic materials to Elko period projectile points. It was obvious that the looters concentrated their activity on a thick Elko period bison butchering level that extended completely across the face of the rockshelter. We were asked to define the extent of looter disturbance and assess the potential significance of the site.

A 1m by 6m test trench was excavated at an angle perpendicular to the cliff face on an east-west axis. The trench was set to bisect the northern extent of the looters' pit. Excavation continued down to 3.5m in the deepest part of the test trench and revealed intact cultural and physical depositional strata down to the level of Pleistocene Birch Creek which flowed at the base of the present limestone cliffs. Figure 1b depicts the idealized stratigraphic sequence showing easily separable cultural and physical depositional units spanning the twelve thousand years of the Holocene. The stratigraphic sequence at the Jimmy Olsen Rockshelter mirrors the stratigraphic sequences exposed by Swanson (1972) at the nearby Bison and Veratic Rockshelters (Fig.1a).

Our testing demonstrated that looters' activity had virtually destroyed context for the uppermost three to four thousand years of occupation, but the deposits still preserved an excellent stratigraphic sequence that can serve to better calibrate the cultural sequence defined by Swanson (1972).

Activity surfaces defined by small Northern Side-notched points and radiocarbon dated at about 5400 B.P. were found in direct association with a rock-lined fire hearth and a sparse bone surface. Some five thousand years ago, a party of hunters gathered beneath the cliff face alongside fires, dropped broken Northern Side-notched points (Fig. 1d) from their atlatl shafts, made and attached new points, carved meat from fresh bison cuts from nearby kills, and roasted these on their fires. Several hunters' camps occurred over a short interval of time, and the resultant activity layers were preserved as dark cultural strata within the general colluvial depositional sequence at the base of the limestone cliff. Not singularly productive in terms of the number of artifacts recovered, the Jimmy Olsen Rockshelter nevertheless is remarkable for its readily definable occupation surfaces and preserved activity contexts within a simple stratigraphic context spanning the Holocene.

The artifact assemblage from the Jimmy Olsen Rockshelter is currently being analyzed by Pam Reschke, a graduate student in the ISU Anthropology Department.

Indian Rocks:

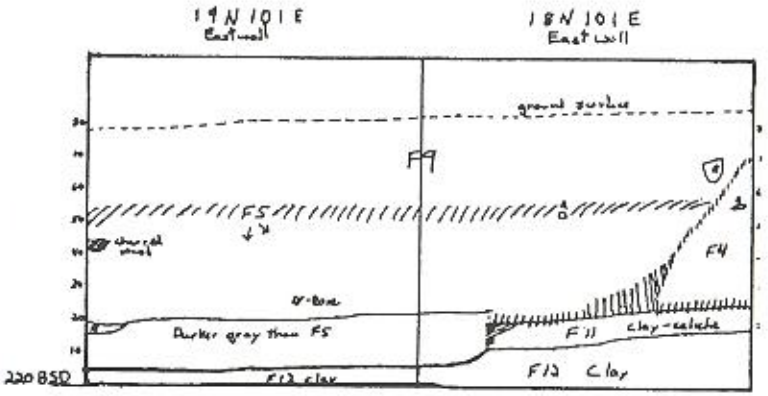
The ISU archaeological fieldschool intensively examined a part of the old Indian Rocks State Park area near McCammon, ID, during the summers of 1992 and 1993 (Furniss 1994a). A large area encompassing an ephemeral marsh above Marsh Creek and within a protected bowl formed by the edges of an exposed lava flow was surveyed. Within this survey zone, a level, rock-free area adjacent to the marsh and in the lee of the cliffs was selected for testing. Given its optimal location, this area seemed a likely candidate to produce an archaeological site, although, because it was devoid of artifactual materials, it was at first considered a "non-site."

Testing consisted of laying out a 10m test trench on a North-South axis, within which five 1m by 1m units were selected at an interval of every other 1m square for excavation in the first field season. In the second field season, each unit was taken down to culturally sterile basalar clays at the level of the contemporary water table or a depth of about 1m. In the second field season, one more unit was excavated to connect three adjacent units and supply a consistent 3m long stratigraphic profile which clearly showed a dark stain running at a depth of about 35cm below the present surface (Fig. 2a). Basin-shaped in profile, this stain coincided with a significant increase in artifact density (Fig. 2b) that appeared to represent a dwelling or housepit. To confirm this hypothesis, a second test trench was extended out from the connected 3m stratigraphic section of the initial test trench on an east-west axis. The stain was found to extend out at least 5m to the west from the initial test trench (Fig. 2c). Its character and provenience exactly mirrored the feature found in the first test trench.

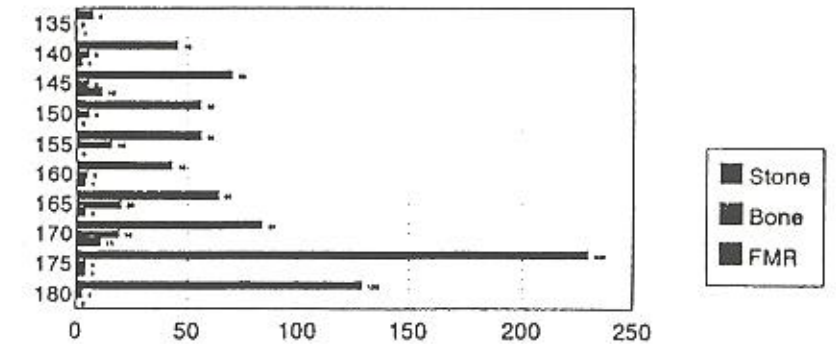
It seems that Indian Rocks was the site of at least one large prehistoric housepit. Diagnostic projectile point types and lithic reduction characteristics indicate an age of four to five thousand years for the probable dwelling. Later occupations on the site seem to span the interval from this time to the pre-contact or Late Prehistoric period. A significant later feature was a large earth oven in the stratigraphic layers above the housepit (Fig. 2c).

If our analysis confirms identification of a large housepit at a marshside environment some five thousand years ago, the ISU archaeological field project will have demonstrated the existence of the only vertical walled, deep housepit in the southeastern part of the state beyond the limit of Twin Falls. This is a compelling discovery, but it also must be recognized that this singular find was made on a "non-site" in an area not recognized as signficant in prior cultural resource surveys. Indian Rocks should be convincing evidence that extant CRM criteria are insufficient in the recognition and assessment of the significance of prehistoric cultural resources. Under extant criteria and precedence measures, "non-sites," that is favorable locations with no cultural material, are neither sought nor tested. At Indian Rocks, we have an optimal location and evidence of occupation in the ethnographic period, and yet, prior surveys failed to make a case for potential significance of the area let alone identify probable localities that should be tested.

Analysis is proceeding at Indian Rocks to characterize the recovered artifact assemblage, analyze the physical depositional environment which spans the Holocene back to the basalar clays deposited post-Bonneville flood, and demonstrate the definition of a prehistoric house floor. As at Jimmy Olsen Rockshelter, analysis of the artifact and ecofact assemblages will be critical to definition of the interpretive context necessary to assert that primary



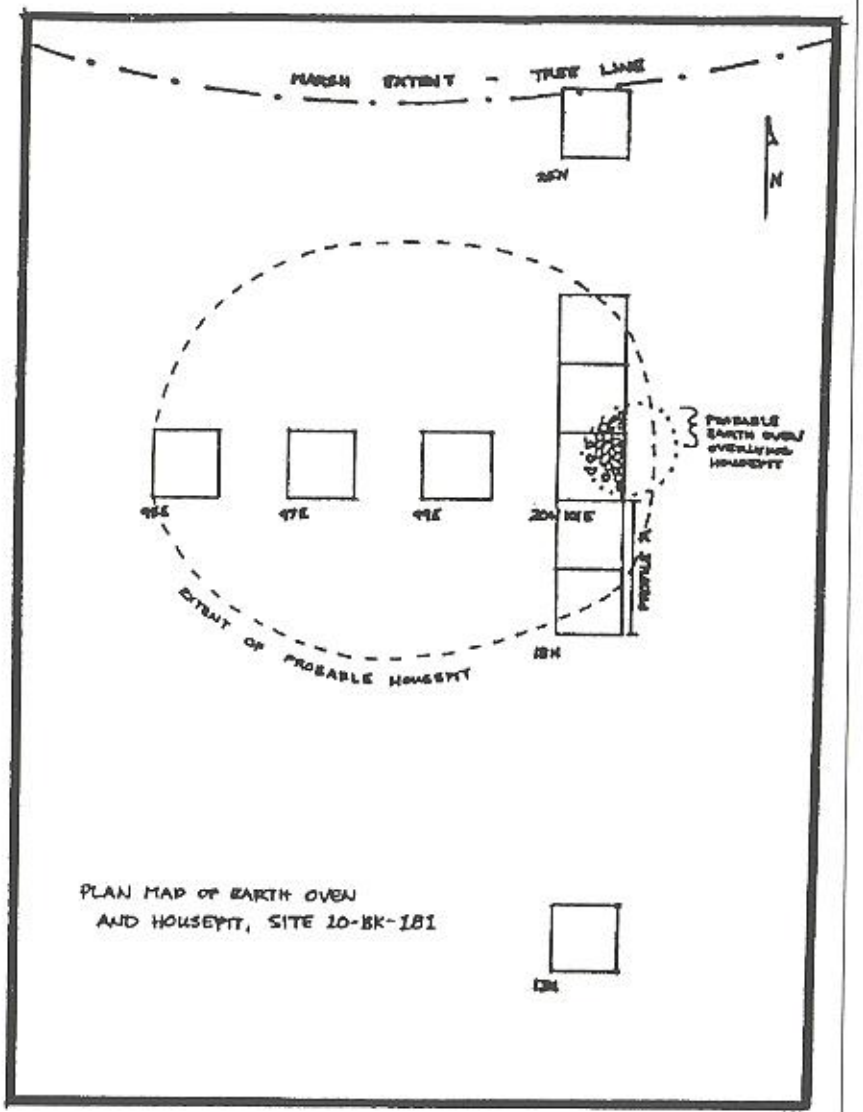
A



Stone	8	46	70	56	56	43	64	84	230	129
Bone	0	6	6	6	16	5	20	19	4	3
FMR	1	3	12	0	0	4	4	11	4	0

Material by count/below site datum/in c.m.

B



C

Figure 2. A: Profile view of cultural stain at approximately 175 cm below site datum and lower, east wall, 18N and 19N101E. B: Frequencies of stone, bone and fire-modified rock by 5-cm levels, from 135 to 180 cm below site datum, 18N101E. C: Plan view of the extent of the stain as exposed in the 1992-1993 excavations.

behavioral contexts are preserved in these archaeological sites. Furniss' (1994b) study of artifact recovery rates under different sampling frames and with different screen sizes is an example of assessing different recovery methods relative to different research goals.

Aviators' Cave:

Perhaps the finest examples of the potential for identifying preserved prehistoric activity contexts are found in the refrigerated environments of Snake River Plain lava tubes (Lohse 1990; Henriksen 1992). Aviators' Cave is a short term prehistoric campsite within the mouth of a large collapsed lava tube on the Idaho National Engineering Laboratory. Lohse (1990), in a cursory overview, notes that the cave was the scene of patterned human activity on at least two occasions over the past fifteen hundred years. Both visits were short term camps involving probably no more than the men, women and children of an extended family group. These people most likely ducked into the cave to avoid brief episodes of inclement weather, first, in the fall c. 1500 B.P., and then again, in the spring c. 300 B.P. On both occasions the camp was set up at the base of the talus left by the collapsed roof of the lava tube and immediately under the overhanging roof. The camp fire and beds were protected from precipitation and wind and yet the camp had sufficient light and draft.

The earliest camp at the site has sage fiber laid down for beds and contains twists of rabbit fur from winter robes and varied artifactual debris from stone and fiber tool kits. The second camp was set up as grass mats within a circular ring of roof fall stones and exhibits marshside plant remains and the feathers of migratory waterfowl, as well as elements of fiber and stone tool kits comparable to the earlier occupation (Fig. 3a). Ecofacts suggest that the earlier occupation occurred in the fall or winter months and that the later occupation happened in the spring when nearby pans filled with water, forming ephemeral lakes.

Activity floors at Aviators' Cave are literally thick organic beds of artifactual material that were simply lifted up and brought back to the laboratory for sorting and analysis. Cultural materials extracted are small bits and pieces of organic and inorganic elements of standard desert dweller tool kits. These are the kinds of perishable objects not commonly found in open archaeological sites (Fig. 3c,d). By far the most compelling bits of evidence, however, are the ecofacts that give important insight into past environments on the Snake River Plain. The Aviators' Cave assemblage is principally plant parts, fiber shreds, seeds, rodent, carnivore and bird bones, hair, feathers, and skin. Animal coprolites have been recovered and when identified and sorted, will yield even more information on past environments.

Ongoing analysis at Aviators' Cave will emphasize description and classification of cultural objects and accurate identification and characterization of floral and faunal environmental indicators. A hint at the potential for defining discrete activities at Aviators' Cave is shown in Figure 3b where projectile points found in the uppermost occupation appear to break into three very narrowly defined stylistic classes. The small amount of variation within each class might represent the presence of three individual makers.

Analysis and report publication will depend heavily upon use of computerized video microscopy and image capture software and hardware. We are in the process of performing these basic analyses and arranging for identification of selected floral and faunal specimens under support by an ISU University Research Committee grant. Marilyn Perry, a graduate student in the Department of Anthropology, will identify recovered floral remains in fulfillment of the publishable paper requirement for her MA degree. The resultant report will be extensively illustrated, emphasizing reproduction of microscopic views of diagnostic cultural and non-cultural specimens.

SOUTHEASTERN IDAHO ARCHAEOLOGY OVERVIEW

To date, the basic prehistoric chronological sequence for southeastern Idaho has been defined. The age of human occupation is accepted, and the diagnostic artifact types have been defined and placed in the context of temporal and spatial relationships. Certainly, chronological problems remain. A high priority in the immediate future, for instance, is development of a regional projectile point typology to which researchers will adhere. That typology should be definitive and replicable, and must be produced in a statistically valid, computerized format, and stored in a computerized data base that can be routinely added to and updated. Holmer (1978; 1986a) and Lohse (1985) are published examples of this sort of projectile point chronology. Creation of such a data base also requires that projectile point types from surrounding cultural areas be included in the definition of type forms: Great Basin (Holmer 1978, 1986a; Thomas 1983), Columbia Plateau (Lohse 1985), and the northwestern Plains (Greiser 1984).

Another compelling research problem, however, is the need to develop an archaeological overview to orient and relate both routine culture resource management projects and pure research programs. The southeastern region and the state must promote cultural resource summaries that direct and prioritize needs. Goals for research must be established that direct why and how archaeological work is done. Lohse (1994a) sets up three goals that begin to address this fundamental problem: Goal 1, revision of the concept of SITE TYPE that emphasizes the importance of primary artifact associations, whether in surface sites or in deeply stratified rockshelters; Goal 2, modification of site excavation methodology to emphasize sampling of cultural features and experimentation with screen size and other recovery variables; Goal 3, continued refinement of analytical methods, particularly the employment of computerized analyses, construction of computerized data bases, and enhanced information sharing technology.

Archaeologists in Idaho must apply contemporary advances in archaeological method and theory to archaeological research in our state. The vast majority of archaeological work is now done under CRM mandates that are driven by legal requirements and accepted precedents, and these usually fail to consider recent theoretical or methodological improvements (cf. Dunnell 1979). The usual protest by contract-driven work is that attention to recent advances is not cost-effective. Our response must be, however, that archaeological testing and excavation are destruction, and we cannot afford to

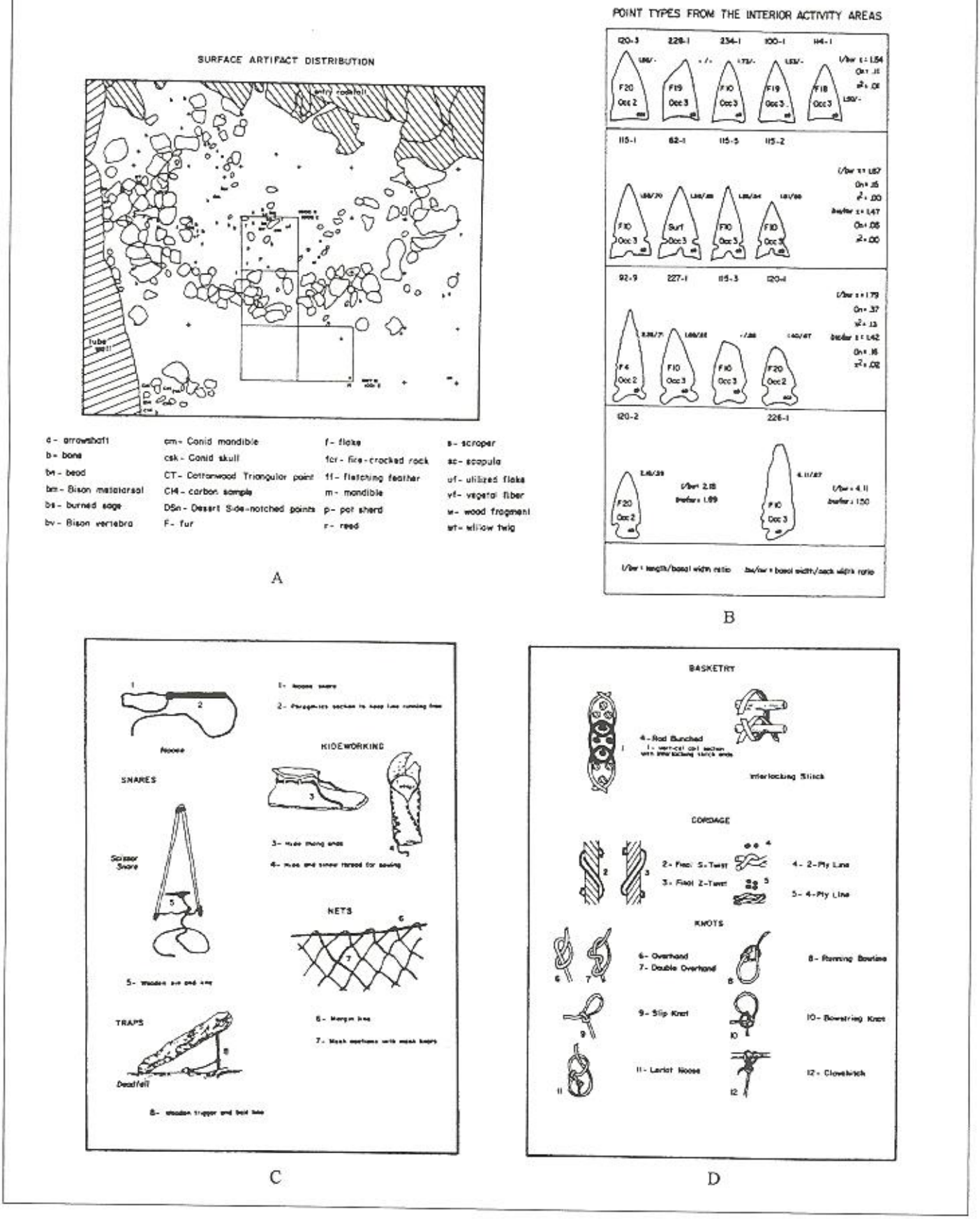


Figure 3. Aviators' Cave. A: Plan map of rock ring and associated surface material. B: Point types from the interior activity areas. C: Fiber artifacts and their probable context (numbers indicate an artifact type recovered). D: Basketry, cordage and knots (numbers indicate types recovered).

crudely destroy the archaeological record in the name of its management. Archaeological sites constitute accumulations of artifacts, some more patterned than others. While archaeological sites are sources of information about our past that must be preserved in order to extract information, cultural debris preserved in the record becomes archaeological information only when it is excavated, collected and analyzed. Any excavation and analysis must be supervised by a general plan. That plan must also acknowledge that collection and excavation are an absolute necessity. Unfortunately, CRM mandates and public laws have begun to hamstring archaeological research by making the archaeological record a unique resource to be retained in unexcavated form. Archaeological sites must not be equated with dense stands of old growth forest or expanses of pristine native grasslands that are to be preserved intact. Archaeological sites are also not paintings by old masters nor historic buildings to be maintained untouched. To have importance, the archaeological record must be excavated and sampled under the guidance of current theory and method within archaeology. Contrary to a number of recent articles that argue that we minimize disturbance of the record, we must collect and we must excavate if we are to realize research potential (cf. W. Butler 1979; Beck and Jones 1994; Schiffer 1975). What is critical is how we excavate and sample the record of past human activity and physical environments. The record is precious and we must be careful and responsible in our research. We must also assert the necessity for archaeological research and the importance it has for *all* of us in revealing insights about our past and about the changes in the physical environments we still occupy.

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