THE NORTH FORK OF THE LITTLE HUMBOLDT RIVER: TWO SITE REPORTS FROM NORTH CENTRAL NEVADA[1]

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North central Nevada is a relatively unknown portion of the Great Basin in terms of archaeological data (cf. Hester 1973:97-101). Except for several widely scattered excavation and archaeological reconnaissance survey reports of varying quality and detail (Bard 1976; Busby 1975; Clewlow 1968; Cowan 1972; Heizer, Baumhoff and Clewlow 1968; Layton 1966, 1970, 1972, 1973a, b, c; McGonagle 1974; Ragir and Lancaster 1966; Stephenson and Wilkinson 1969; Tuohy 1963, among others) there exists no real comparative data base for the region. The excavations and survey activities undertaken in the Valley of the North Fork of the Little Humboldt River, Humboldt County, Nevada were conducted by the University of California Archaeological Research Facility during 1973-74 as part of the continuing archaeological research program in Great Basin archaeology initiated in 1912 with L.L. Loud's excavation of Lovelock Cave (Loud and Harrington 1929), and conducted by the University of California, Berkeley.

The program in the Valley of the North Fork of the Little Humboldt River was directed towards several ends. The prime goal of the project was to add to the current known data base presently available for study, especially paleo-environmental and subsistence pattern data. In addition it was expected that the cultural materials would provide valuable data for intra-site comparisons and aid in the evaluation of the archaeology of the North Fork of the Little Humboldt River area within the broad frame of Great Basin prehistory and with special reference to north central Nevada.

In brief, the research design was primarily concerned with the expansion of current archaeological knowledge in an area where the archaeological record is poorly known and fast disappearing through increased agricultural and recreational land use. The data-oriented reports presented below represent supplemental contributions to the archaeology of this area, which is currently being undertaken and will appear in a major site report (Bard, Busby and Kobori, in preparation).

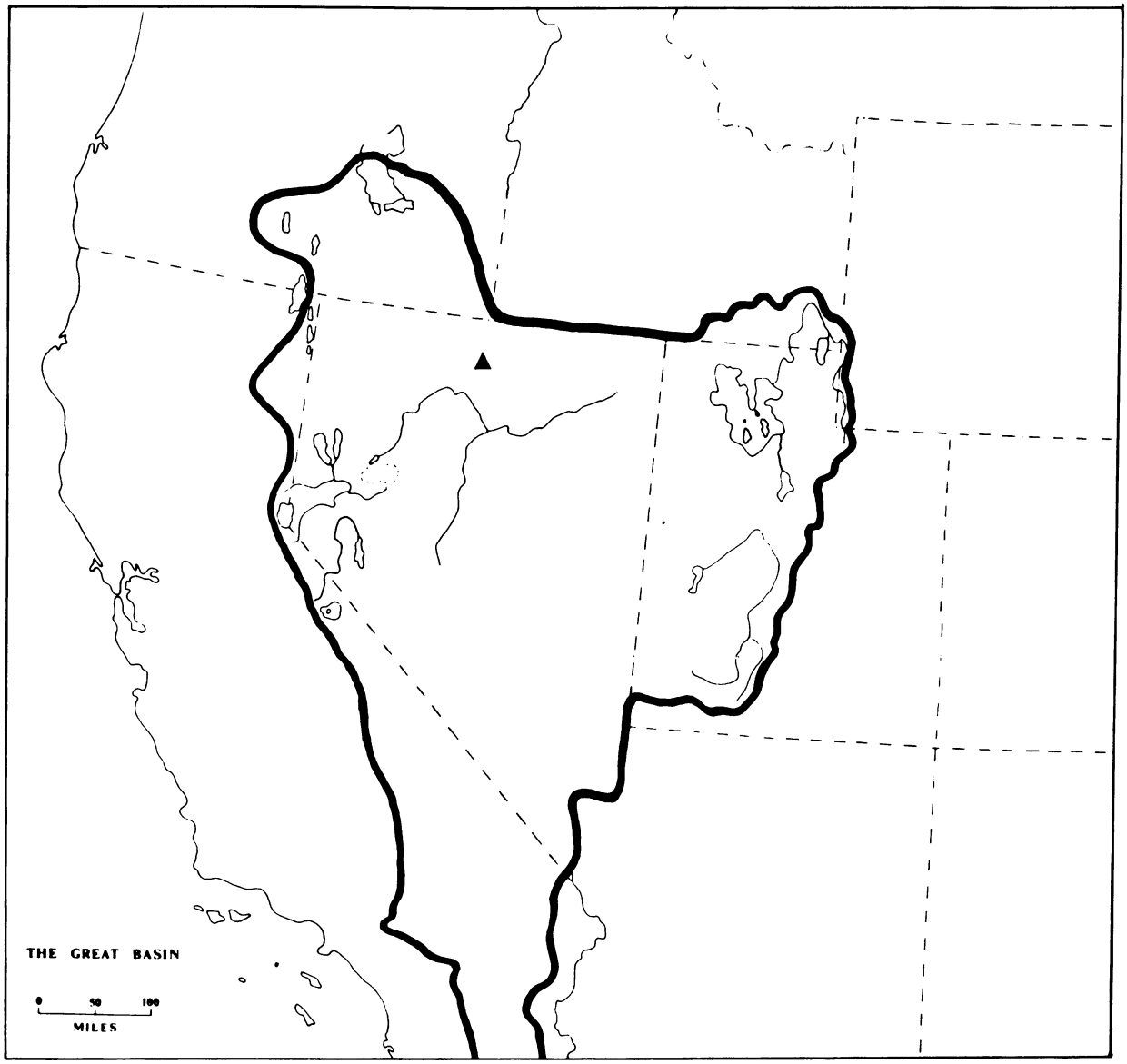
THE STUDY AREA

The Valley of the North Fork of the Little Humboldt River is located ca. 35 miles northeast of the town of Paradise Valley, Humboldt County, Nevada. The sites are located along the banks of the North Fork of the Little Humboldt River, a minor tributary of the Humboldt River in north central Nevada. To the south lie the Osgood Mountains and Hot Springs Range. The towering Santa Rosa Range dominates to the west (Map I).

REGIONAL SETTING

The study area has a topography typified by a gradation between the Basin and Range Province and the Columbia River Plateau Province. That is, mountain ranges of moderate to high relief separated by broad alluvium-filled valleys and basins.

Rocks of the Tertiary and Quaternary ages form the surface of the valley and surrounding area. The Tertiary rocks are primarily of sedimentary and volcanic origin and include shale, sandstone, conglomerate, tuff and diatomaceous shale along with



Map 1: Location of Study Area within The Great Basin

rhyolitic and dactic volcanic rocks and some basaltic and andesitic rocks. The Quaternary deposits, primarily on the valley floor, consist predominantly of poorly sorted older to younger alluvial and lacustrine sediments (cf. Willden 1964 for a description of the regional geology).

The high elevation mid-latitude deserts of the Great Basin are characterized by a cool, semi-arid, continental climate with warm summers and cool winters. The normal annual precipitation in Humboldt County varies from about 5 to 10 inches. About half of this falls in the winter months; generally less than 1 inch falls in the summer months and the remaining amount is about evenly distributed between spring and autumn (Vishner 1954-197-198, 258-260). For this area, the normal daily maximum temperature is 90°-95°F during the last half of July, although temperatures as high as 100°F are not uncommon. The normal daily minimum temperature in the middle of January is about 15°F, but temperatures lower than -20°F have been noted in the northern portion of the county (Willden 1964).

Dice (1943:45) has described the Great Basin region as belonging to the Artemisian biotic province, which is typically composed of sagebrush-covered plains and partially forested mountains. The Valley of the North Fork of the Little Humboldt River is located within the sagebrush life belt, a zone of xerophytic vegetation occupying the lower elevations of the Artemisian province and structurally dominated by true sagebrush (*Artemisia tridentata*). Billings (1951:110-113) and Cronquist et al. (1972:122-125) have more specif-

ically described a sub-zone occurring in broad, high valleys and lower foothills above 4500 feet in the northern Great Basin as the sagebrush-grass zone, in which are found a variety of characteristic large shrubs, grasses and numerous other annual and perennial species. The present plant community in the valley corresponds to the sagebrush-grass zone designation. In addition to the dominant *A. tridentat*, shrub species such as *Chrysothamnus nauseous* (rabbit brush), and *Grayia spinosa* (spiny hop-sage) form a moderately dense coverage in the North Fork Valley. Native bunch grasses (*Poa* sp.) are common in areas ostensibly protected from grazing within this community. Grazing pressure has nevertheless tended to restrict the co-dominant position of native bunch grasses in favor of introduced annual grasses such as *Bromus tectorum* (Billings 1951:112). This species is abundant in the disturbed areas surrounding the archaeological sites and throughout the sagebrush community. Other common annual and perennial genera in the vicinity include *Calochortus* sp. (Star tulip), *Erigonum* sp. (Wild buckwheat), *Lupinus* sp. (lupine), *Minulus* sp. (monkey flower), *Polygonum* sp. (common knowteed) and *Ribes* sp. (gooseberry).

The North Fork of the Little Humboldt River provides conditions for a diverse riparian community. The narrow emergent zone along the stream banks is composed primarily of horsetail (*Equisetum* sp.), wire-grass (*Juncus* sp.), dock (*Rumex* sp.), willow (*Salix* sp.), and a variety of annual and perennial forbs.

In terms of mammalian fauna, the area lies within the Upper Sonoran Life Zone as described by Merriam (1898:36). Hall (1946:33-34, 37) lists several species of small mammals indicate of Upper Sonoran sagebrush and valley-bottom salt-desert shrub habitats, including: *Eutamias minimus* (lease chipmunk), *Lagurus curtatus* (sagebrush vole), *Citellus townsendi* (Townsend ground squirrel), *Perognathus parvus* (long-tailed pocket mouse), *Microdipodops* sp. (kangroo mouse), *Dipodomys ordii* (Ord kangaroo rat), *Onychomys leucogaster* (northern grasshopper mouse), and *Sylvilagus idahoensis* (pygmy rabbit). Other mammals common to the sagebrush-grass zone in the North Fork vicinity are the black-tailed jack rabbit (*Lepus californicus*) and the Pronghorn antelope (*Antilocapra americana*). The mule deer (*Odocoileus hemonious*) also ranges throughout the upper regions of the Upper Sonoran Life Zone (Hall 1946:621).

Of final note are the several species of fish which are common in the Humboldt River and its tributaries (cf. La Rivers 1962). Some important native taxa noted by Steward (1938:41) include the red sucker (*Catostomus tahoensis*), Lahontan sucker (*Pantosteus lahontan*), redstriped shiner (*Richardsonius egregius*) and the endangered Lahontan cutthroat trout (*Salmo clarki*). *Salmo clarki* reportedly spawned in the North Fork of the Little Humboldt River as recently as the early 1900's (Lundy, personal communication). Van Denburgh (1922) and Stebbins (1966) describe the species of reptiles common to this area and Lindsdale (1936) should be consulted for the avifauna of the region.

In summary, the Valley of the North Fork of the Little Humboldt River has two vegetational and faunal communities present, sagebrush-grass and riparian, each of which offers distinct environmental conditions and potentials for human exploitation within the valley.

THE SITES

THE PINK POINT SITE

A Surface Collection of a Single Phase Occupation Site in the North Central Great Basin

The Pink Point Site (26-Hu-302), an undisturbed single phase occupation site characterized by the presence of only Cottonwood Triangular projectile points, attracted the attention of the North Fork project archaeologists as an ideal site for field training preparatory to the collection of the North Fork Lithic Scatter (cf. Bard 1976). It was with this purpose in mind that the site was totally collected as a rigorous field exercise. It was only upon the return to the laboratory that the uniqueness of the data which had been collected was recognized. As part of the training of several undergraduate North American archaeology students, the collection was analyzed in an attempt to delineate specific technological processes being carried out within a circumscribed temporal and spatial framework. The results of this intensive lithic analysis are presented below.

SITE LOCATION

The site is a small, discrete lithic scatter of obsidian, chert and basalt debitage and artifacts located on a flood plain terrace situated due north and approximately two meters above the present course of the North Fork of the Little Humboldt River. The Pink Point Site is at a contour elevation of 4800 feet (a.s.l.) and is located 0.5 miles west of the site of Ezra's Retreat, a cave/rockshelter, and 125 yards north from the North Fork Lithic Scatter, an immense lithic scatter located on the southern terrace of the river (cf. Bard 1976; Busby 1975; Busby, Bard, and Spencer 1975). The site is roughly rectangular in plan and measures 60 feet in a north-south direction and 55 feet in an east-west direction and contains an estimated 3300 square feet. The overall area is reasonably level and the

southern edge of the site is approximately 100 yards from the present river course. An intermittent stream leading to the North Fork River runs by the western edge of the site. From our inspection prior to collection, the site appeared to be reasonably intact with only minor surface livestock disturbance noted.

COLLECTION PROCEDURES

A temporary datum was set up in the approximate center of the site after the extent of the lithic scatter had been determined by a reconnaissance survey. An intensive surface collection was then undertaken of all lithic debitage and artifacts present within the site boundaries. In addition to the surface collection, a shovel test pit was sunk in a section of the site to check the depth of the deposit. The results obtained from this excavation indicated that the majority of the deposit was contained on the surface.

THE ARTIFACTS

Thirteen chipped stone artifacts, two ground stone artifacts and 444 pieces of lithic debitage were collected from the Pink Point Site. The chipped stone artifacts are made on chalcedony, chert, basalt, and obsidian. The ground stone objects are made from basalt. All of the raw materials are available in varying quantities in the immediate vicinity of the site.

CHIPPED STONE ARTIFACTS

Convergent Scraper: This specimen (2-54146B) is on an interior flake of chalcedony. The piece is unifacially retouched on two edges which converge to a round, distal end. One worked edge shows evidence of use-modification or edge damage (Figure 1a).

Length: 5.0 cm — Working Edge Angle: 70°
Width: 4.9 cm — Weight: 18.7 g
Thickness: 0.8 cm

End Scraper-Graver-Denticulate: This specimen (2-54146C) is made on an interior flake fragment of pink, banded chert. The distal end is unifacially retouched by pressure flaking and the right lateral edge has five "notches" removed, thus creating a denticulated edge. Just below the distal end is one of these deep notches, so placed as to create a small, sharp projection or "graver" tip (Figure 1b).

Length: 4.5 cm — Thickness: 0.7 cm
Width: 2.9 cm — Weight: 9.4 g

Biface Fragments: These two specimens (2-54140, 2-54145) are chert lateral edge fragments of two separate bifaces (Figure 1c).

Length: 3.7-5.0 cm — Thickness: 0.6-1.1 cm
Width: 2.7-2.8 cm — Weight: 6.0-12.6 g

Utilized Flakes: One specimen (2-54134A) is made on a small biface chert thinning flake and the other (2-56134B) is made on a chert secondary cortex flake fragment. Both show evidence of use modification or edge damage on the distal ends (Figure 1d).

Length: 2.9-3.7 cm — Thickness: 0.4-1.1 cm
Width: 1.8-3.0 cm — Weight: 2.4-6.9 g

Core: This specimen (2-54139) is a large chunk of chert from which several flakes have been struck from 2 platform areas (Figure 1e).

Length: 9.2 cm — Thickness: 2.8 cm
Width: 5.5 cm — Weight: 133.7 g

Split Cobble: This specimen (2-54138) is a large, split fine-grained basalt cobble with cortex covering the outer surfaces.

Length: 12.4 cm — Thickness: 5.5 cm
Width: 10.1 cm

GROUND AND PECKED STONE ARTIFACTS

Pecked-Ground Slab: This specimen (2-54144) is a large, flat slab of slightly vesicular basalt which has been shaped somewhat by pecking and some minor grinding. In some places along the circumference, large "flakes" of basalt have been removed by pecking and/or battering. It is unclear as to what this specimen would be if it were to be finished by the manufacturer.

Length: 20.6 cm — Thickness: 5.5 cm
Width: 13.8 cm

Pecked-Shaped Cobble: This piece (2-54135) is a large rounded cobble of vesicular basalt. It has been shaped slightly around half of its curcumference by pecking and/or battering. There is no evidence of grinding on the specimen.

Length: 16.5 cm — Thickness: 8.5 cm
Width: 13.0 cm

PROJECTILE POINTS

The four projectile points belong in the Cottonwood Triangular Type as discussed by Hester and Heizer (1973). Blade edges are either straight or convex. Specimen 2-54147 is a distal fragment made on obsidian. The original flake surface on this piece is apparent on both surfaces, suggesting that this was an unfinished point. The cross-section of this specimen is plano-convex. Specimens 2-54141, 2-54142 and 2-54143 have bi-convex cross sections. Specimens 2-54141 and 2-54142 are reasonably complete, the former made on pink banded chert and the latter on brown chert. Specimen 2-54143 is a proximal fragment and is of obsidian. An analysis of the flaking characteristics (Table 1) reveals that parallel convergent flaking

(Crabtree 1972:80) was the preferred pattern. All of the projectile points are made on small, thin flakes which exhibit very little of the original flake curvature (Figure 1f, g, h, i).

Measurements

2-54141:	Length: 3.1 cm Width: 1.4 cm	Thickness: 0.3 cm Weight: 1.0 g
2-54142:	Length: 2.1 cm Width: 1.4 cm	Thickness: 0.2 cm Weight: 0.6 g
2-54143:	Length: 1.5 cm Width: 1.3 cm	Thickness: 0.3 cm Weight: 0.8 cm
2-54147:	Length: 1.9 cm Width: 1.3 cm	Thickness: 0.3 cm Weight: 0.7 g

Means

Length: 2.6 cm	Thickness: 0.27 cm
Width: 1.36 cm	Weight: 0.77 g

Projectile Point Preform

This specimen (2-54137B) is made on a thin, chert, interior flake fragment. There is use modification or edge damage present on both lateral edges. The overall triangular outline and thin cross section of this flake suggest that it was a blank for a Cottonwood Triangular projectile point.

Length: 3.6 cm	Thickness: 0.3 cm
Width: 2.4 cm	Weight: 3.0 g

LITHIC ANALYSIS

Before proceeding with the discussion of the lithic analysis, it is necessary to clarify the terminology used within the body of the report. The following definitions are presented here to accomplish this end.

Definitions:

whole flakes: Whole flakes must have an intact striking platform and must be complete enough to measure maximum length and width (cf. Crabtree 1972:64).

flake fragments: Flake fragments are pieces on which the bulb of percussion and striking platform are missing (Hester 1971:108).

waste: Waste are all those miscellaneous chips, angular splinters, and amorphous chunks which are the by-products of lithic manufacturing processes (cf. Deacon 1969).

primary cortex flakes: These are decortication flakes, whose dorsal surfaces are entirely covered with cortex. These are often called Initial Cortex Flakes by various authors (Hester 1971 and Shafer 1969).

secondary cortex flakes: These flakes are partially covered with cortex on the dorsal surface and have one or more flake scars representing previous flake removals (cf. Hester 1971 and Shafer 1969).

interior flakes: These flakes are struck from the interior of a core, or a bifacial blank or preform from which all the cortex has been removed. Thus, interior flakes have no nodular cortex remaining on the dorsal surface and will exhibit some flake scars from earlier flake removals on the dorsal surface as well (cf. Hester 1971 and Shafer 1969).

biface thinning flakes: Flakes which have multifaceted striking platforms, diffuse bulbs of percussion, and pronounced lips where the platform and the ventral surface intersect are referred to here as biface thinning flakes. Hester (1971) and Shafer (1969) call these lipped flakes. The dorsal surfaces usually exhibit multiple flake scars and sometimes small areas of cortex as well. Most are thin in cross section, broad in outline and are probably due to the use of a billet (cylinder hammer) of a material softer than the material being worked (cf. Epstein 1969).

angle alpha: This is the angle formed between the axis of percussion (a line drawn perpendicularly to the striking platform at the point of impact) and the medial axis of the flake (cf. Wilmsen 1970:14).

TABLE 1
Projectile Point Data

UCLMA#	Type	Status	L	W	T	Wt.	Material	Flake Type D	Flake Type V	Cross-Section	FSC	Provenience
2-58196	DSN	Comp.	2.4	1.4	0.3	0.8	Obsidian	PO	PC	P.C.	4.9	N20/W10 - L-1
Uncat.	DSN	Frag.	1.9+	1.3+	0.25	0.6+	Chert	PC	PO	B.P.	3.7	BD[1]
2-58162	RSCN	Comp.	3.3	1.3	0.3	1.3	Obsidian	PC	PC	P.C.	3.9	N20/W5 - L-4
2-58203	RSCN	Frag.	1.9+	1.2	0.4	0.8+	Chert	NP	NP	B.C.	5.0	N20/W10 - L-2
Uncat.	RSCN	Frag.	1.5+	1.1	0.3	0.7+	Obsidian	MX	ER	B.C.	5.5	BD[2]
2-58164	EES-Pre.	Comp.	3.8	2.1+	0.4	2.1+	Chert	COL	COL	B.C.	2.8	N20/W5 - L-4
2-58144	EE	Frag.	2.6+	2.0+	0.5	2.6+	Obsidian	NP	NP	B.C.	3.1	N20/W5 - L-2
Uncat.	ECN	Comp.	4.5	2.5	0.5	4.6	Obsidian	NP	RDM	P.C.	2.6	BD[3]
2-58163	E frag.	Frag.	3.1+	1.8	0.4	2.3+	Obsidian	PC	NP	B.P.	3.5	N20/W5 - L-4
2-58181	HBN	Frag.	2.2+	1.8	0.35	1.7+	Obsidian	FLT	FLT	B.P.	UNK	BD[4]
2-58211	UNK	Frag.	-	-	-	-	Obsidian	-	-	-	3.2	N20/W10 - L-3

Measurements in centimeters and grams.

1 - Lower shelter, surface of back dirt less than 20 cm deep.
2 - Side wall squaring above 30 cm in major pothunters pit.
3 - Major pothunter's pit, side wall squaring, 30-60 cm.
4 - Surface, back dirt pile, major pothunter's pit.

Flaking types: Parallel oblique, parallel convergent, Non-parallel, Mixed parallel, Non-parallel, Edge retouch, Collateral, Random and Fluting.

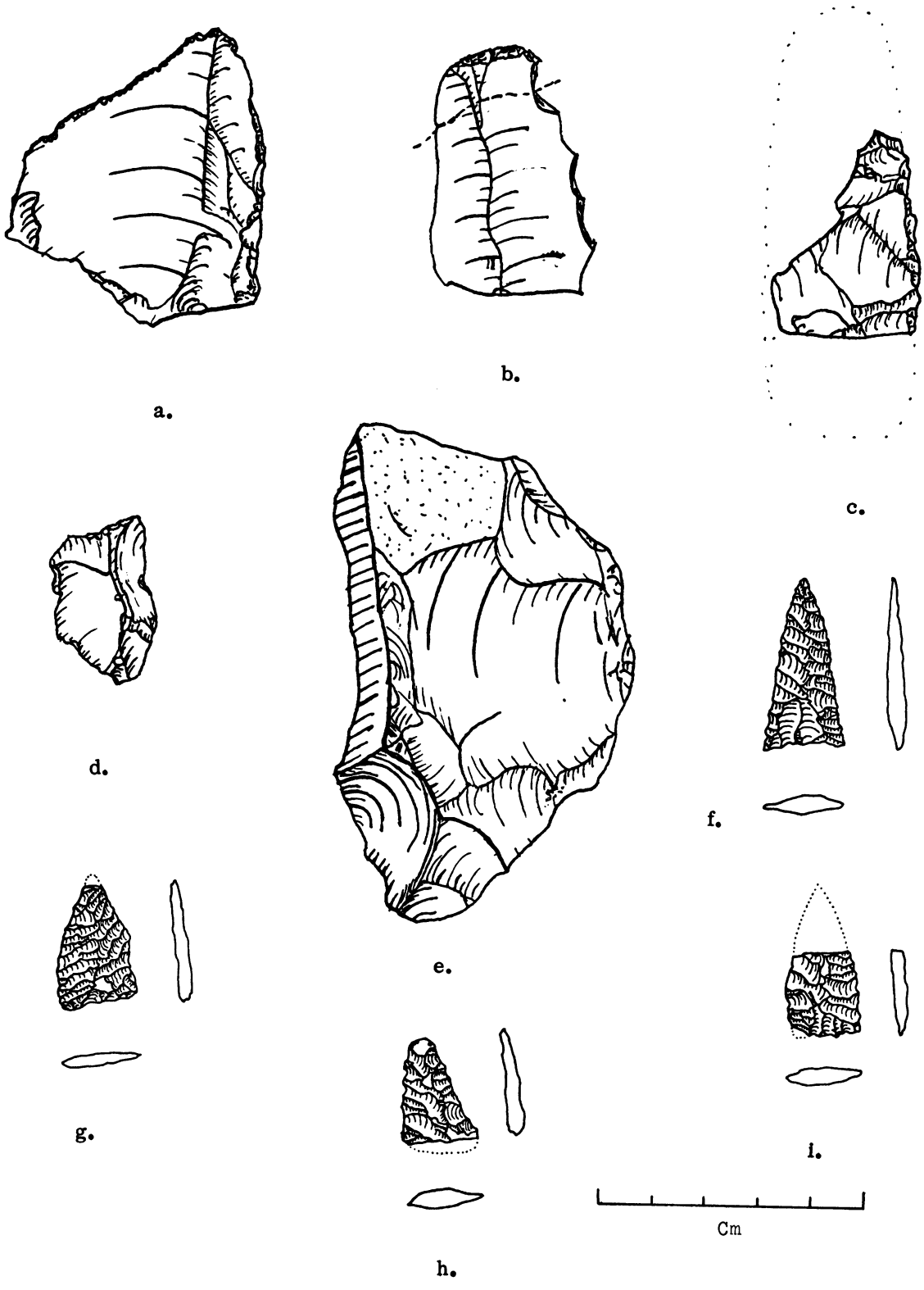


Figure 1: a) Convergent Scraper (2-54146B)
b) End Scraper-Graver-Denticulate (2-54146A)
c) Biface Fragment (2-54140)
d) Utilized Flake (2-54134A)
e) Core (2-54139)
f) Cottonwood Triangular Projectile Point (2-54141)
g) Cottonwood Triangular Projectile Point (2-54142)
h) Cottonwood Triangular Projectile Point (2-54147)
i) Cottonwood Triangular Projectile Point (2-54143)

angle beta: This is the angle formed between the plane of the striking platform and the plane of the ventral flake surface (cf. Wilmsen 1970:14). Angles alpha and beta are measured on a polar grid to the nearest two degrees.

length width ratio: This is the index ratio obtained by dividing the length of a flake by its width. "Narrow flakes" are those flakes which have a L/W ratio range of 2:1 - 1.5:1. Flakes with a L/W ratio range of 1.5:1 to 1:1 are called "equant flakes," and "sub-equant flakes" have a ratio range of 1:1 to 0.67:1. "Wide flakes" are those flakes with a ratio less than 0.67. "Wide blades" are those that have a L/W ratio range from 3:1 to 2:1 (cf. Fekri 1972:21).

maximum width position: This is a notation of the point of maximum lateral dimension along a three step scale (Wilmsen 1970:19, Figure 7).

striking platform characteristics:

plain simple—This has been defined by Epstein (1969:72) as a platform that exhibits a relatively flat, smooth surface, without cortex.

two-faceted—These have two flake facets evident on the platform from either a transverse direction or from a lateral direction (cf. Wilmsen 1970:Figure 3f).

multifaceted—These have more than two flake facets on the striking platform.

shattered—This is a catch-all category for obscured platforms. Some have been obscured by later thinning or removal of the platform, or were shattered off when the flake itself was detached from the parent material. Those platforms showing any abrasion or crushing (cf. Wilmsen 1970: (Figure 4) are included here as well.

METHODOLOGY AND CONSIDERATIONS

The 15 artifacts recovered at the Pink Point Site amount to only 3.3% of the total assemblage of 459 specimens. In order to facilitate further cultural interpretations, the 444 pieces of lithic debris were studied. The 444 pieces of lithic debitage were sorted into whole flake, flake fragment and waste categories with the whole flakes being subjected to an attribute analysis modeled in part after Shafer (1969) and Wilmsen (1970). Such an attribute analysis can help elucidate certain aspects of prehistoric technology, specifically, the nature of the particular set of technological processes employed in the manufacturing of various artifacts.

The Pink Point assemblage is especially amenable to this sort of lithic analysis because of the relatively firm placement of this site in the overall cultural sequence of the Great Basin. Four Cottonwood Triangular projectile points were recovered. According to Hester and Heizer (1973:10) these have a temporal range of ca. 900 A.D. to late prehistoric times. The site is a discrete lithic scatter and probably represents a single occupation of rather short duration. The advantages of analyzing such a discrete "feature" are readily apparent when one consideres the fact that centuries of occupation and re-occupation of open sites often leave a mixed and confusing record of prehistoric activities.

RAW MATERIAL

Of the three raw material types present at HU 302, obsidian comprises 6.1% (27), chert 77.2% (343) and basalt 16.7% (74) from a total number of 444 pieces of debitage. In the category of whole flakes, 8.2% (7) are obsidian, chert equals 68.2% (58) and basalt 23.5% (20) out of a total of 84 whole flakes. Of the 312 flake fragments, there are 5.4% (17) obsidian, chert equals 80.8% (252) and basalt 13.8% (43). In the waste category there are 6.4% (3) obsidian, 70.2% (33) chert and 23.4% (11) basalt out of a total of 47 pieces (Figures 3 and 4).

In summary, chert is the preferred raw material followed by basalt and then obsidian. It should be noted that in Figure 4, the high percentage of basalt in regard to weight, is caused by the large size of several of the whole flakes and fragments. However, with respect to the category of debris, the pattern of relative preference of raw material holds (Figure 5).

DEBRIS CATEGORY ANALYSIS

Of the 444 specimens of debitage, 312 (70.2%) are flake fragments, 85 (19.3%) are whole flakes, and 47 (10.5%) pieces are waste (Figure 2). In regard to Figure 2, it is worth noting that whole flakes, though fewer in gross numbers than fragments, weigh more than the total aggregation of fragments.

WHOLE FLAKE ANALYSIS

Of the 84 whole flakes analyzed, 52 (61.9%) are biface thinning flakes while the remaining 32 (38.1%) are regular flakes struck from cores. There is only one (1.2%) primary cortex flake and no primary cortex biface thinning flakes present. There are 8 (9.5%) secondary cotex flakes, 4 4.8%) secondary cortex biface thinning flakes, 23 (27.4%) interior flakes and 48 (57.1%) interior biface thinning flakes. Forty-one (85.4%) of the 48 interior biface thinning flakes are chert. Ten (43.5%) of the 23 interior flakes are chert. These two groups will be discussed more thoroughly below. From the above, it can be inferred that the

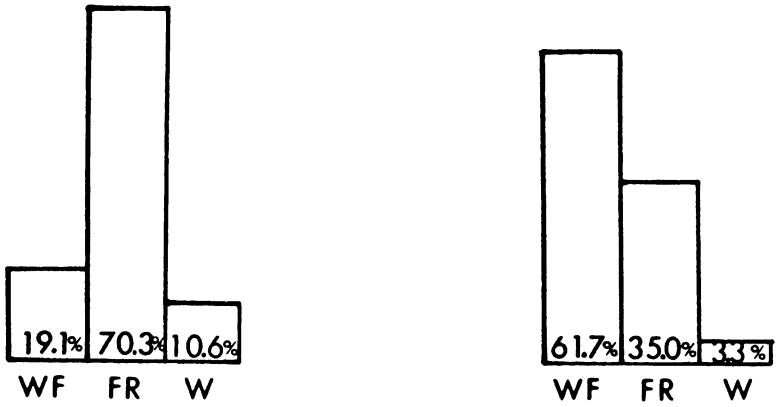


Figure 2: Total Lithic Debris: Left Histogram Depicts Gross Numbers, Right Histogram Depicts Weights

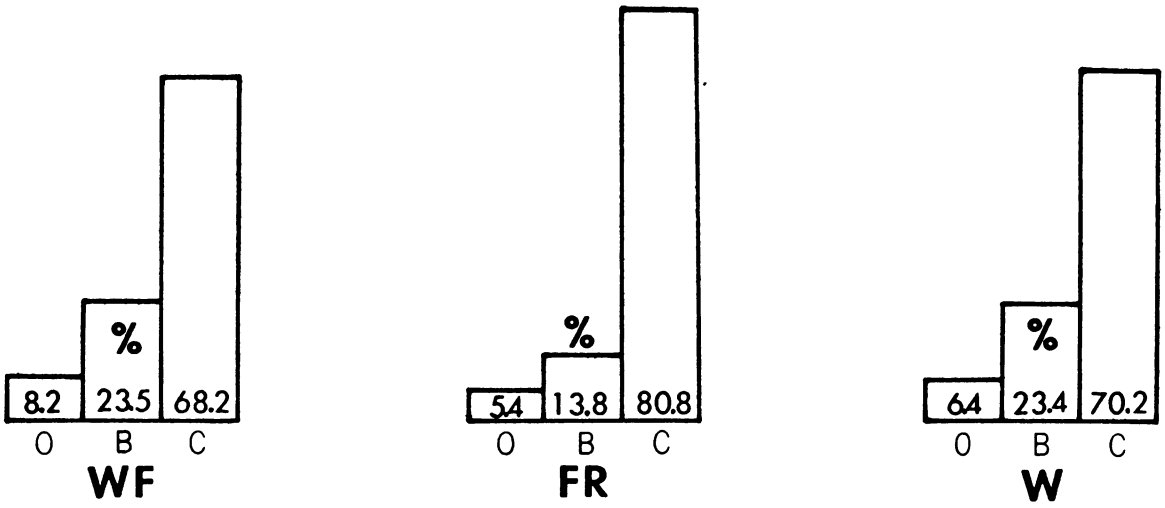


Figure 3: Total Lithic Debris, Gross Numbers

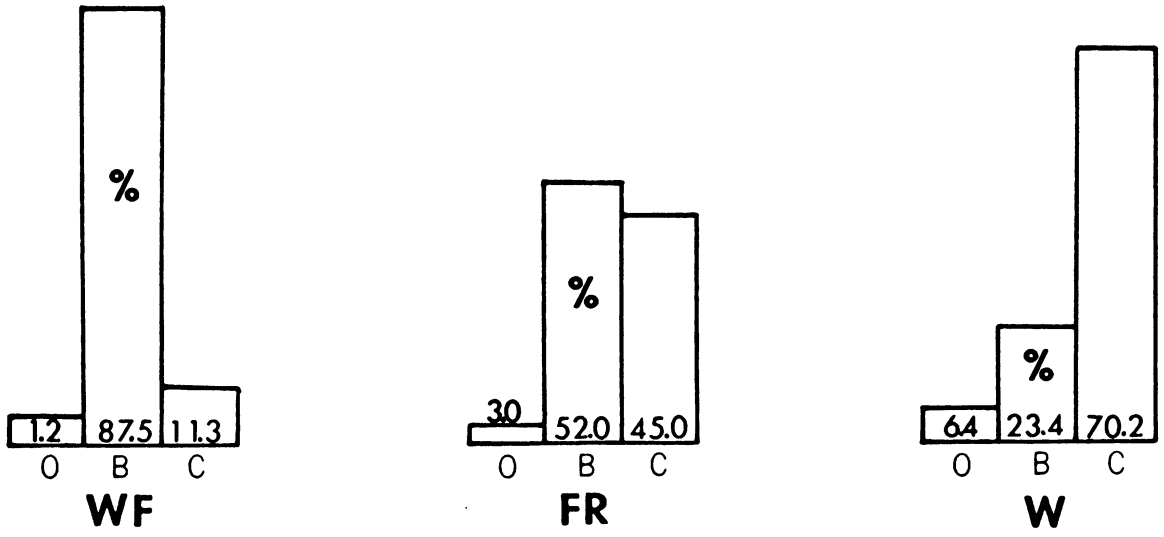


Figure 4: Total Lithic Debris, Weight

KEY: WF = Whole Flakes
FR = Flake Fragments
W = Waste

O = Obsidian
B = Basalt
C = Chert

Debris Category	Material	Weight	%	Gross No. [#]	%	Test Pit	%	Surface	%
Whole Flakes	Total	992.8gm	100	85	100	14	100	71	100
	Obsidian	12.0	1.2	7	8.2	2	14.3	5	7.1
	Basalt	868.2	87.5	20	23.5	4	28.6	16	22.5
	Chert	112.2	11.3	58	68.2	8	57.1	50	70.4
Flake Fragments	Total	562.5	100	312	100	60	100	252	100
	Obsidian	17.4	3.0	17	5.4	2	3.3	15	6.0
	Basalt	291.7	52.0	43	13.8	6	10.0	37	14.6
	Chert	253.4	45.0	252	80.8	52	86.7	200	79.4
Waste	Total	50.3	100	47	100	8	100	39	100
	Obsidian	5.7	11.3	3	6.4	3	37.5	0	0
	Basalt	8.7	17.3	11	23.4	1	12.5	10	25.6
	Chert	35.9	71.4	33	70.2	4	50.0	29	74.4

Figure 5: Distribution of Lithic Debris from 26-HU-302

manufacturing and "finishing" or trimming of bifacial implements constituted the major focus of manufacturing at HU 302. The paucity of primary cortex flakes suggests that raw material was obtained at some other location. Previous reconnaissance of the Quarrry Site (NV HU 304) located in the near vicinity of HU 302 failed to reveal any evidence of primary processing of raw material. The raw material at HU 302 was probably obtained from the North Fork Lithic Scatter (NV HU 301) where an intensive survey and collection (Bard 1976) revealed numerous core break-up features and an abundance of decortified raw material suitable for further use.

Table 2 summarizes the relative differences in metric attributes of chert interior flakes to chert interior biface thinning flakes. Chert interior flakes are, on the average, longer, wider and thicker than their biface thinning flake counterparts. Figures 6 and 7 are scatter diagrams of the length/width ratios of the above two groups. The labeling of flakes (equant, sub-equant, etc.) follows Fekri (1972). Chert interior flakes, on the average, weigh considerably more than do chert interior biface thinning flakes, 5.4 g versus 0.5 g. The mean angle alpha of both groups is similar, 12.4° for chert interior flakes and 9.6° for chert interior biface thinning flakes. The mean angle beta of both groups however is quite different, 87.7° for chert interior flakes and 16.2° for chert interior biface thinning flakes. The above reflects the difference in technological processes involved between core-flaking and biface thinning. Angle beta for the interior flakes shows that the platform angle at which flakes are detached is nearly a right angle. The very acute platform angle on biface thinning flakes reflects the acute angle on bifacial artifacts from which biface thinning flakes are struck.

The mean maximum width position (MWP) of chert interior flakes (2.4) is greater than the MWP for the chert interior biface thinning flakes (2.2). This shows that biface thinning flakes have their widest lateral dimension closer to the middle of the flake than do interior flakes.

Presumably, the proportion of flakes with different kinds of striking platforms has some relationship to different forms of artifact manufacture as well as the motor habits that are involved in their production (Epstein 1969:72). A flake with an unprepared or plain-simple (PS) platform probably comes from a cobble or block that has received little or no previous flaking, whereas a multifaceted striking platform (MSP) probably derives from a core or from bifacial blanks that have been flaked extensively. Six (60%) of the chert interior flakes have PS platforms compared to 19 (46%) of the chert interior biface thinning flakes with PS platforms. One (10%) of the chert interior flakes is either two-faceted (2F) or multi-faceted (MF). However, 14 (34%) of the chert interior biface thinning flakes have either 2F or MF platforms. Eight (20%) of the chert interior flakes have

TABLE 2
Metric Attributes of Certain Whole Chert Flakes

	Sample	Mean Length	Width	Thick	Range Length	Width	Thick
Interior Flakes	10	2.59 cm	2.26	0.58	1.2 - 4.8	1.5-5.1	0.3-1.1
Interior Biface-Thinning Flakes	41	1.37	1.24	0.18	0.6 - 3.2	0.5-2.5	0.1-0.6

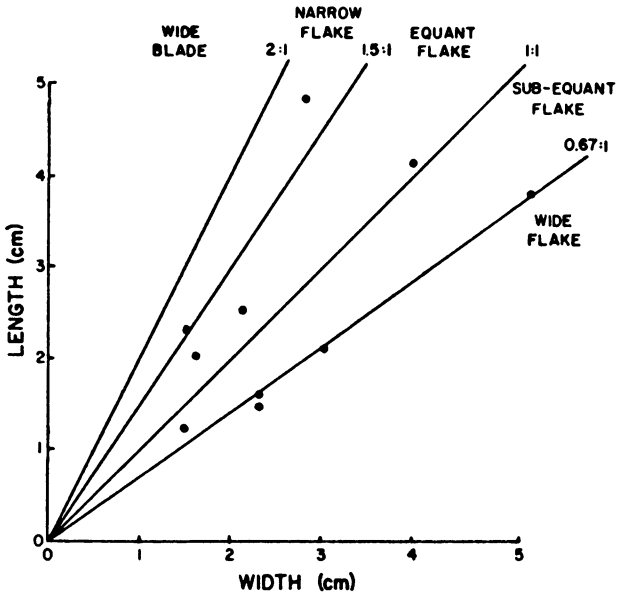


Figure 6: Length Width Ratios of Chert Interior Flakes

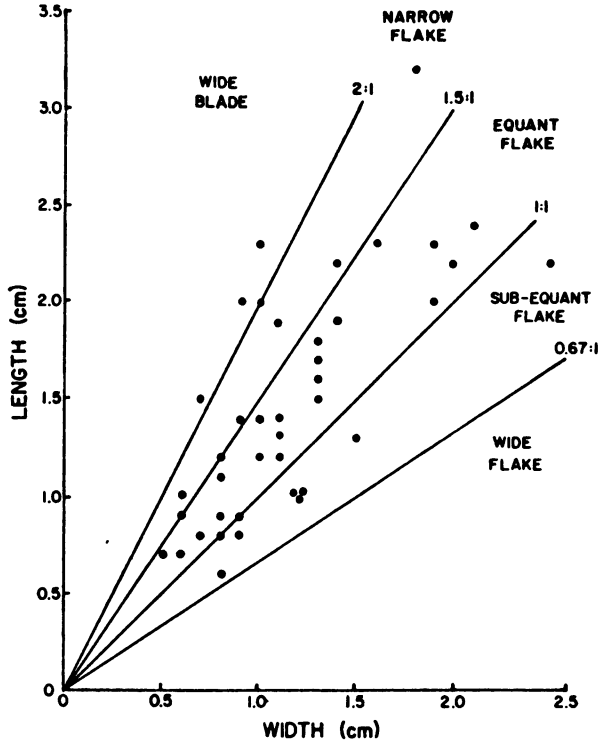


Figure 7: Length Width Ratios of Chert Interior Biface Trimming Flakes

shattered platforms, and 3 (30%) of the chert interior biface thinning flakes have shattered platforms. The above figures illustrate the differing technological processes employed in flaking chunks of raw material as opposed to biface thinning operations. Flakes struck from cores may exhibit either PS or shattered platforms, but at this locality hardly ever exhibit 2F or MF platforms.

All of the whole flakes were examined for evidence of edge damage. Often edge damage is the result of utilization, but often as not, particularly on unprotected open sites, edge damage is caused by mechanical forces not associated with cultural "use." Seven (70%) of the chert interior flakes are edge damaged and 36 (88%) of the chert interior biface thinning flakes have edge damage.

SUMMARY AND CONCLUSIONS

The Pink Point Site (NV HU 302) is a single component, temporary campsite located on a terrace of the North Fork of the Little Humboldt River and is ecologically situated at the interface between two vegetational and faunal communities, sagebrush-grass and riparian, each of which offer distinct environmental conditions and potentials within the immediate site vicinity. It is quite probable that all of these zones were used during the occupation of the site although definite archaeological evidence for this supposition is lacking. The site is also temporally delimited by the presence of only Cottonwood Triangular projectile points which have a postulated time range of 900 A.D.-late prehistoric times (Hester and Heizer 1973:10).

An analysis of the lithic debitage collected reveals an emphasis on the secondary processing of raw material with chert, basalt and obsidian being the preferred materials, all of which are found in varying quantities and qualities in the near vicinity of the site. It appears that the occupants of this site obtained decortified raw materials, most probably from the large lithic scatter on the opposite terrace of the North Fork River, for their manufacturing purposes. Some of the material was utilized for cores from which flakes were detached and some pieces were bifacially thinned in the manufacture of bifacial atrifacts.

An attribute analysis of the whole flakes collected revealed quantitative differences in the technology employed in core flaking and biface thinning. Some useful attributes that might be considered in future analyses of the debitage are flake termination (stepped, feather, straight, hinged and so on) (cf. Thomas 1971:102), outline, lateral and longtudinal shape, and striking platform length and width. The selected attributes that were analyzed in regards to the HU 302 material were chosen primarily to give a first approximation of

the technological processes employed in the Valley of the North Fork of the Little Humboldt River. Further analysis will be done for neighboring sites in the same area following the above parameters. As an observation, it is further suggested than an intensive study of lithic debitage from temporally delimited contexts would be a useful project for interested students of prehistoric technology in the Great Basin.

STOLEN SHELTER

Salvage of a Late Occupation Site in the North Central Great Basin

Stolen Shelter was first noted by Mr. Spencer and Mr. Swezey, members of the North Fork Valley archaeological project, during an initial site reconnaissance survey of the North Fork of the Little Humboldt River in 1974 (Busby, Bard and Spencer 1975). The shelter was noted as having been badly disturbed by relic collectors (later discovered to be the buckeroos at the nearby Bullhead Ranch) but the survey team was of the opinion that it might provide some valuable comparative material for the area despite its disturbed deposits. Due to the time, financial and permit constraints placed on the field party, research strategy was limited to a brief testing/salvage of the site. The results of this research are presented below.[2]

SITE LOCATION

The site (26-Hu-583) is a small rockshelter/overhang located along the south-east side of the basal portions of a Tertiary Age basalt extrusion (Willden 1964) on the west side of the Valley of the North Fork of the Little Humboldt River near the juncture of the North and South Forks of the Little Humboldt River. Stolen Shelter, so named because of the vandalism of its deposits, is at an elevation of 4600 feet (a.s.l.) and was formed primarily by mechanical weathering of the basalt parent material. The site, facing east and overlooking the North Fork of the Little Humboldt River, is roughly rectangular in plan, measuring approximately 80-90 feet along the front with width varying from 5-15 feet (Map II). The cultural deposit, which was badly distrubed by vandalism, appeared to have accumulated to within 2.5-3.0 feet of the shelter ceiling in the Upper Shelter. The front of the shelter is reasonably level and a gentle slope (5° - 10°) leads from the edge of the deposit downward to the river approximately 300 feet east from the site.

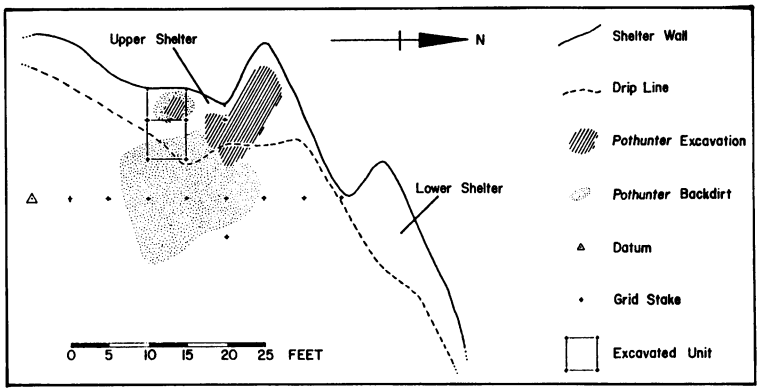
EXCAVATION PROCEDURES AND STRATEGY

A permanent datum point along a N-S line was established outside the shelter on the east side of the site (Map II). All vertical and horizontal distances were controlled from this point by means of a line level, a Brunton pocket transit and a tape measure. The site was mapped in 5.0 feet (150 cm) units and standard excavation records were kept. Approximately 10% of the shelter was excavated. Arbitrary levels of 10 cm were used with all depth measurements taken from surface at the northeast corner stake of the unit. All excavated fill was passed through one-quarter-inch mesh screen.

Since the site had been badly disturbed by vandalism, and due to time constraints, salvage excavations were carried out in the areas left reasonably intact in the immediate vicinity of the disturbed area. The upper portion of the shelter was chosen for excavation on the basis of the numerous projectile point fragments and lithic debitage found scattered about on the surface. The lower portion of the site was left unexcavated.

THE DEPOSITS

The rockshelter deposits consisted of elemental accumulation (wind-blown dust, rockfall) and or-



Map II: 26-HU-583

ganic remains (cow, coyote and rodent feces, dry grass and other vegetal materials) mixed with small quantities of faunal remains and lithic debitage. Some evidence of small rodent nests and burrows were found throughout the deposits. Several small hearth areas (mainly of ash and charcoal fragments), the remains of single fires, were encountered in the excavation units (see Firehearths for a complete description). The deposits were dug down from the surface to our maximum depth of ca. 55 cm before encountering the basalt bedrock floor of the site.

No natural stratigraphy was discernible in the two units during excavation, but from the wall profiles of the units, two gross layers were noted based primarily on their color and composition. Stratum 1 is composed primarily of organic material (compacted herbivore feces, small twigs, vegetal matter and small mammal bones) along with small pieces of angular rock mixed with ash and charcoal fragments. It is light to dark brown in color (Munsell = 7.5YR4/4). Stratum 2 has only small quantities of organic material present and is primarily a very fine silty deposit with some small angular rock and ash/charcoal fragments present. It is light grey in color (Munsell = 10YR6/1). Compaction is present only in Stratum 1 and is minimal in Stratum 2 (Figure 1).

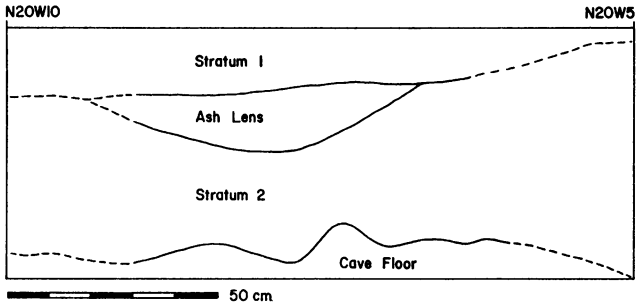


Figure 1: North Wall Profile, N20/W5

FIREHEARTHS

During excavation of N20/W5 several extremely light and scattered concentrations of charcoal were noted. Level 1, yielded a small 20 cm x 30 cm concentration of charcoal and ash 9.0 cm thick at a depth of 3.0 cm below surface. From the burned herbivore feces present in this concentration, it is probably that this hearth is of "recent" origin.

One definite firepit/hearth was found in N20/W5 near the top of Stratum 2 (Figure 1). It consisted of a shallow, 14.0 cm deep, lens-shaped pit with sloping sides. The pit was approximately 80.0 cm in diameter near the top narrowing to 30.0 cm in diameter at the bottom. Analysis of the ash and charcoal residue revealed this to be primarily the remains of *Artemisia tridentata* (Big sage). No artifacts were directly associated with this hearth, although the Eastgate and Rosespring Series of projectile points can be grossly correlated at 20-40 cm. No other discrete firepits or hearths were noted in the excavated units, although numerous flecks of charcoal and ash were noted as being present throughout the deposit.

ARTIFACTS

PROJECTILE POINTS

Eleven chipped stone artifacts were classified as projectile points or projectile point fragments. Type classification follows the standard typologies established and in use for the Great Basin (cf. Hester and Heizer 1973).

Desert Side-Notched (Figure 2a, b)

Specimens: 2

Description: These are small, slender triangular points with slightly convex sides. Fine side notches range from 1.0-2.5 mm in depth. There is a basal concavity and notch evident on 2-58196 and there is evidence of these features on the fragment. The maximum width position in all instances is at the base. The flaking is more controlled on the dorsal aspect of the two specimens, similar to those at Hogup Cave (Aikens 1970:33). (See Table 1 for data on flaking types.) Cross-sections are plano-convex and bi-plano and both specimens are very well made on thin flakes that preserve the original flake curvature.

Material: Obsidian and chert.

Measurements: Length—29.0 mm (mean); Weight—0.8 grams (mean).

Flake Scar Count: 4.4 per cm (mean).

Damage: Specimen 2-58196 shows flake removals concomitant to the base and tip damage. This appears to denote an application of force parallel to the long axis of the point. Thus it is quite probable that the fractures with associated flake removals are impact fractures due to use.

Provenience: 2-58196—Level 1, N20/W10; Uncatalogued specimen—Vandal's backdirt in the vicinity of the lower shelter.

Rose Spring Corner Notched (Figure 2d, e, f)

Specimens: 3

Description: These are small, slender to medium triangular points. The sides are convex with one irregular and one concave due to secondary retouch. The barbs are rounded with slight to medium protrusion. The notching is generally wide, at ca. 45° to the long axis of the points and ranges from 2.0-3.0 mm in depth. The stems have slight to marked expansion with convex bases. Cross sections

are plano-convex (1) and bi-convex (2).

Material: Obsidian (2); chert (1).

Measurements: Length—33.0 mm (mean); Weight—1.3 grams (mean).

Flake Scar Count: Range—3.0-6.0 per cm; Mean—4.8 per cm.

Damage: Specimen 2-58162 has barb damage present while 2-58203 has both barb and tip damage. The uncatalogued specimen has tip damage present. Shattering and associated flake removals parallel to the long axis on 2-58203 appear to be due to use damage.

Provenience: 2-58162—Level 4, N20/W5; 2-58203—Level 2, N2-/W10; Uncatalogued specimen—Side wall squaring, 0.30 centimeters from major disturbed area.

Eastgate Series

Notched Eastgate Preform (Figure 2h)

Specimens: 1

Description: The sides of this specimen are concave and irregularly edged. The barbs are square and parallel sides and project slightly beyond the base. The stem is slightly expanded with an irregular base. The notches range from 4.5-5.0 mm in depth and the piece is bi-convex in cross-section.

Material: Chert.

Measurements: Length—38.0 mm; Weight—2.0+ g

Flake Scar Count: 2.8 scars per cm.

Damage: One barb is fractured off approximately parallel to the long axis of the point with the fracture having been initiated at the top of the dorsal right notch.

Provenience: 2-58164—Level 3, N20/W5.

Comments: It is probable that this point was broken during the notching phase of manufacture and discarded. On the barb fracture is a concomitant removal distally and at an angle to the long axis, across the ventral face of the pont. This would appear to indicate a distal application of force characteristic of the notching process. The specimen's flaking is collateral (cf. Crabtree 1972: 57) and cruder than is usual for the area (compared to 26-Hu-300 and 301 where parallel oblique and parallel convergent types of flaking predominate [Spencer, personal communication]). The flake scar count is also low, 2.8 compared to 4.2 per cm (average) at 26-Hu-300. Flake removals are generally expanding, characteristic of biface thinning flakes (cf. Crabtree 1972:74-75; Shafer 1969:4-5). The blade edges are irregular and there is hardly any edge retouch present. There is some evidence of special platform preparation on the ridges (Crabtree 1972: 85, 94).

Elko Series

Elko Eared (Figure 2g)

Specimens: 1

Description: This is a medium-sized triangular point with irregular and convex sides. The barbs are somewhat pointed and the dorsal left barb has been retouched into a bump. The barbs form the widest portion of the point and are of medium projection. The notching is quite wide and 4.0 mm deep. The stem is expanded with a basal concavity of 3.0 mm deep. The specimen is bi-convex in cross-section.

Material: Obsidian.

Measurements: Not taken.

Flake Scar Count: 3.5 flake scars per cm.

Damage: This specimen (2-58144) has tang, barb and tip damage present. The barb damage has been retouched to remove the fresh break face. Shattering and flake removals concomitant to the tip damage denote use fracture.

Provenience: Level 2, N20/W5.

Comments: The barb retouch may be the reworking of a previous fracture since the present fracture is gross to the point of making any further retouch useless.

Elko Corner-Notched (Figure 2j)

Specimens: 1

Description: This is a large-sized, wide, triangular point with convex sides. The barbs are pointed with medium projection and the notches are wide and 4.0-5.5 mm deep. The barbs are the maximum width position. The base is quite expanded with a basal notch of 2.0 mm. The specimen is convex in cross-section.

Material: Obsidian.

Measurements: Length—45.0 mm; Weight—4.6 g.

Flake Scar Count: 2.8 scars per cm (mean).

Damage: The specimen is complete except for a small chip on the dorsal right barb.

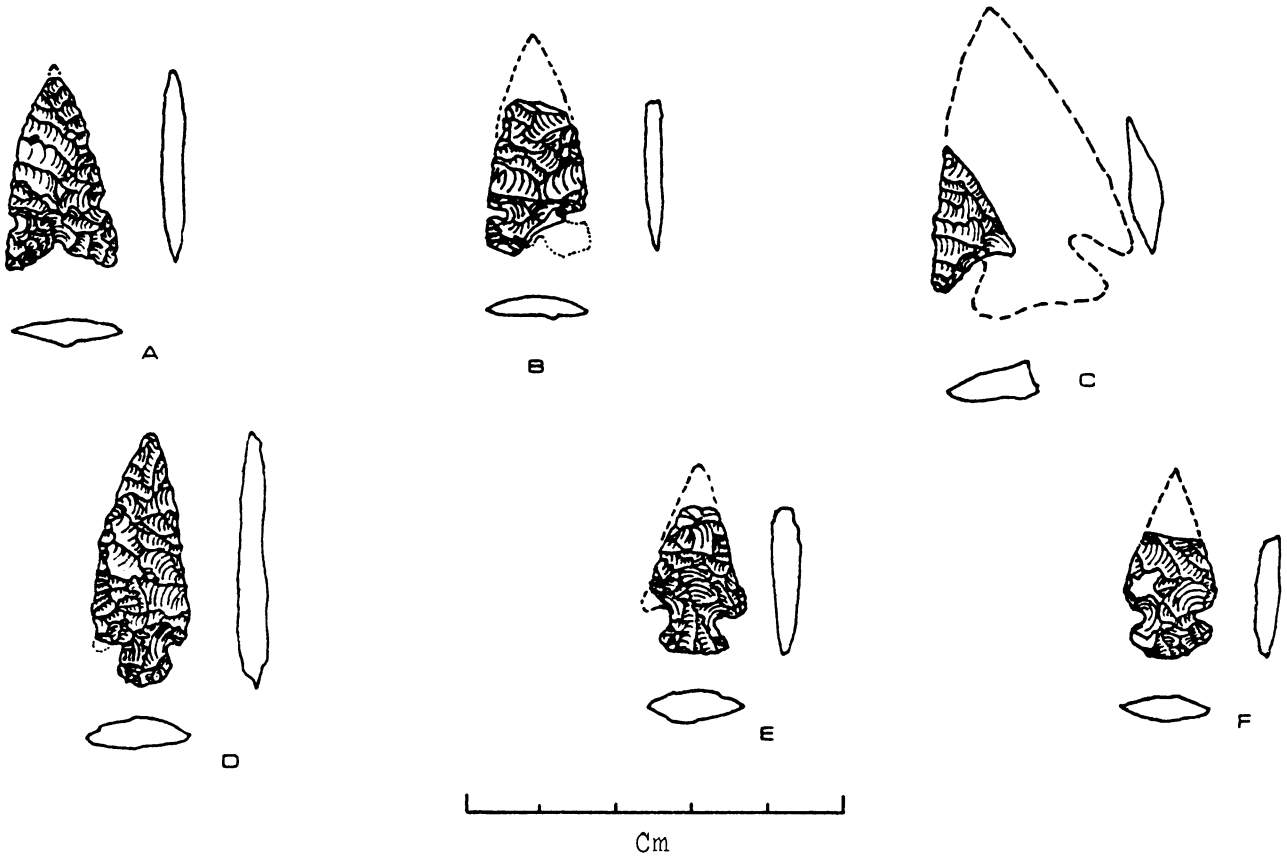
Provenience: Surface/Backdirt.

Comments: This point has more flake scars per cm than either of the other Elko specimens and is more crudely flaked. The flake scars are poorly controlled, multi-form and multi-directional.

Elko Fragment Figure 2k)

Specimens: 1

Description: This is a medium to large-sized, slender triangular point with straight sides. The barbs are rounded with the notches ca. 3.0 mm deep and at almost a right angle to the long axis of the point. The base is missing and the piece is plano-convex in cross-section.


A
B
C
D
E
F
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H
I
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K

TABLE 1
Analysis of Flaking Techniques for Cottonwood Projectile Points and Numbers of Flake Scars per Centimeter

UCLMA#	DORSAL SURFACE	VENTRAL SURFACE	Lf. D.	Rt. D.	Lf. V.	Rt. V.	Mean
2-54143	*Parallel Convergent	*Parallel Convergent	4.5	4.5	4.0	5.5	4.6
2-54147	*Parallel Oblique	*Parallel Oblique	5.0	4.5	4.0	4.5	4.5
2-54142	*Parallel Convergent	* Edge Retouch Only	6.0	4.5	---	---	5.2
2-54141	*Parallel Convergent	*Parallel Convergent	5.0	5.0	5.0	4.5	4.9

*Original Flake Surface Present
[D = Dorsal, V = Ventral]

TABLE 2
Stratigraphic Occurrence of Point Types

	N20/W5					N20/W10			No-Provenience
TYPE	Levels 1	2	3	4	5	Levels 1	2	3	
DSN						1			1
RSCN				1			1		1
EES				1					
Elko Series		1		1					1
HBN									1
UNK									1

← Figure 2: a) 2-58196 (DSN)
b) Uncatalogued (DSN)
c) 2-58211 (UNK)
d) 2-58162 (RSCN)
e) 2-58203 (RSCN)
f) Uncatalogued (RSCN)
g) 2-58144 (EE)
h) 2-58164 (Eastgate)
i) 2-58181 (HBN)
j) Uncatalogued (ECN)
k) 2-58163 (Elko)

Plate 1a: View of Stolen Shelter and Rock Formation from River

Plate 1b: View of Vandal's Pot Holes and Back Dirt Pile

Material: Obsidian.

Measurements: Not taken.

Flake Scar Count: 3.5 scars per cm.

Damage: This specimen has tip, barb and base damage present. The tip and base fractures are simple snap fractures and are probably due to use.

Provenience: Level 4, N20/W5.

Comments: This is the most finely flaked of the three Elko specimens recovered from Stolen Shelter.

Humboldt Basal Notched (Figure 2i)

Specimens: 1

Description: This is a large lanceolate point with straight sides and no contraction at the base. The base contains a deep concavity 14.0 mm across and 6.0 mm deep (cf. Heizer and Clewlow 1968: Figure 3; Hester and Heizer 1973: 16, Figure 1). The cross-section of this specimen is bi-planar.

Material: Obsidian.

Measurements: Not taken.

Flake Scar Count: Obscured by fluting flakes and damage..

Damage: The disto-medial section is missing. There are two removals down the ventral surface of the point and the upper part of the dorsal right surface, probably denoting impact damage.

Provenience: Surface.

Comments: When reconstructed this point (2-58181) is our largest specimen.

Unidentified Large Corner-Notched Type (Barb Fragment) (Figure 2c)

Specimens: 1

Description: Notch, 6.0 mm deep.

Material: Obsidian.

Flake Scar Count: 3.2 per cm.

Damage: There are two fracture facets forming a right angle with each other.

Provenience: Level 3, N20/W10.

Comments: This is either a Pinto Series or Elko Series fragment and from inspection is probably an Elko. From the 6.0 mm deep notch, it is possible to infer a finished size approximately the size of the Elko Corner Notched previously described.

BIFACES (Table 3)

Four fragmentary specimens were classified as belonging to this category. These are essentially pieces that show evidence of having been bifacially trimmed into a definite form but cannot be placed into typological subcategories. The materials used are chert, chalcedony and obsidian.

2-58138: This partial specimen is made on a tabular piece of chert and bi-convex in cross-section. It is bifacially flaked (hard hammer) with a large amount of primary cortex still present on the "inner portions" of one side of the piece. The "butt" is rounded and overall the tool shows little evidence of edge damage or use.

2-58201: A chert medial section fragment. Roughly plano-convex in cross-section with evidence of hard hammer technique used in its manufacture. Large amounts of cortex are present especially on the inner portions of the specimen.

2-58174: A chalcedony medial section fragment. Roughly bi-convex in cross-section with the hard hammer technique used in its manufacture.

2-58184: This is an extremely large and crude broken biface (chopper) that is made on a tabular piece of light grey chalcedony. The piece has been bifacially flaked by hard hammer percussion but some cortex is still present on one face of the specimen. The edges exhibit little or no evidence of edge damage or utilization. The specimen is plano-convex in cross-section.

2-58202: A snapped obsidian tip section. The piece if roughly plano-convex in cross-section. The hard hammer technique was used in its manufacture.

SCRAPERS (Table 4)

Three specimens from Stolen Shelter were identified as belonging to this typological category. These tools are characterized by either unifacial or bifacial retouch on one or both edges. In the case of side scrapers, the working edge(s) is more or less parallel to the long axis and for end scrapers, the working edge is more or less perpendicular to the long axis. All specimens described below are made on percussion produced flakes of chert or obsidian.

Convex Side Scraper

This specimen (2-58151) is an interior flake of obsidian with unifacial, soft hammer percussion trimming on the left lateral edge that extends almost to the center of the ventral face. This specimen has a concavo-convex cross-section.

All-Round Scraper

This piece (2-58177) is a bifacially worked cortex flake of obsidian with evidence of edge utilization/retouch around the edges. Cortex is present over 40% of the dorsal side. The specimen has a bi-convex cross-section.

Naturally Backed Side Scraper

This specimen (2-58195) is an interior flake of chert with bifacial, soft hammer percussion trimming on the left edge. The specimen has a plano-convex cross-section with a natural ledge on the right edge forming a convenient resting point.

TABLE 3
Biface Data

UCLMA#	L	W	T	Wt.	Edge Angle R	Edge Angle L	Cross-Section	Provenience
2-58138	37.0+	59.1	10.5	27.9+	47°	51°	Bi-convex	N20/W5 - L-1
2-58201	51.0+	37.4+	7.0	14.2+	35°	40°	Plano-convex	N20/W10 - L-2
2-58174	42.9+	27.7+	10.5	14.4+	48°		Bi-convex	N20/W5 - L-5
2-58184	110.0	85.0	38.8	341.0	55°		Plano-convex	Backdirt
2-58202	40.0+	32.0+	7.2	6.2+	40°	39°	Plano-convex	N20/W10 - L-2

[All measurements in mm and grams]

TABLE 4
Scraper Data

UCLMA#	L	W	T	Wt.	Edge Angle R	Edge Angle L	Cross-Section	Provenience
2-58151	29.4	26.7	10.2	7.9	62°		Concave-Convex	N20/W5 - L-3
2-58177	32.0	28.4	8.4	7.1	44°	46°	Bi-convex	Backdirt
2-58195	50.0	23.5	9.7	12.8	40°		Plano-convex	N20/W10 - L-1

[All measurements in mm and grams]

MISCELLANEOUS CHIPPED STONE ARTIFACTS

Multi-purpose Graver/Scraper/Knife

This artifact (2-58145) is made on a secondary snapped cortex flake fragment of chalcedony with a roughly bi-convex cross-section. The snap forms a broad natural ledge parallel to the converging edges of the flake which show extensive pressure produced retouch and wear. In addition, a lateral edge perpendicular to the snap shows evidence of edge damage and retouch.

Specimen 2-58179 is made on a broken obsidian interior flake that has snapped at one end. The lateral edge has been completely bifacially worked by fine pressure flaking.

Specimen 2-58183 is a flat, tabular piece of chert waste with a crude bifacially chipped lateral edge. A natural snap forming a broad edge is parallel to the worked edge.

UCLMA#	*L*	*W*	*T*	*Wt.*	*Working Edge Angle*	*Provenience*
2-58145	29.0	45.5	16.1	16.6	36°	N20/W5 - L-2
2-58179	16.9	29.0	5.0	2.4	35°	Backdirt
2-58183	55.5	27.0	11.8	27.8	44°	Backdirt

[All measurements in mm and grams.]

MISCELLANEOUS FLAKE TOOLS

These specimens are essentially flakes, either whole or partial, that show deliberate evidence of slight to moderate modification.

Backed Flake

This is a whole obsidian interior flake with dulling and crushing along the entire right edge parallel to the long axis. The left edge of this specimen (2-58160) parallel to the long axis shows slight evidence of edge damage or utilization.

Length: 35.1 mm Weight: 3.4 g
Width: 18.4 mm Provenience: N20/W5 - L-4
Thickness: 5.5 mm

DRILLS/PERFERATORS

Only one specimen was recovered that could be classified into this group. It is probable that the complete specimen was similar to the "lollipop" drills recovered from 26-Hu-301 (Bard, personal communication). Specimen 2-58153 is a tip fragment of chert formed by pressure flaking with a bi-convex cross section.

Length: 21.4+ mm Edge Angle: 30°
Width: Base - 5.4 mm Weight: 0.5+ g
Tip - 2.4 mm Provenience: N/20W5 - L-3
Thickness: 2.0 mm

"KNIVES" (CHIPPED STONE ARTIFACTS WITH A SHARP CUTTING EDGE)

This specimen (2-58178) is made on an obsidian secondary cortex snapped flake fragment. It has been modified with partial unifacial retouch along one lateral edge on the ventral side. Its cross section is plano-convex. Specimen 2-58182 is made on a snapped chert cortex flake fragment. Primary cortex covers much of the dorsal surface (70%). The specimen has a triangular cross-section and several small flakes have been detached from the ventral surface. A natural ledge is formed by the cortex along one lateral edge and the other lateral edge shows some evidence of edge damage or utilization. No modification other than this occurs on the tool.

UCLMA#	*L*	*W*	*T*	*Wt.*	*Working Edge Angle*	*Provenience*
2-58178	46.3	25.7	7.6	9.1	38°	Backdirt
2-58182	60.5	39.2	14.6	36.8	38°	Backdirt

[All measurements in mm and g.]

MISCELLANEOUS STONE OBJECTS

This specimen (2-58212) is a split cobble of siltstone with a crescentic outline. The inside edge and one of the outer tips have both been unifacially retouched.

Length: 135.0 mm Weight: 180.9 g
Width: 53.0 mm Provenience: N20/W10 - L-1
Thickness: 17.9 mm

CORES

The terminology used in the descriptive sections follows Shafer (1969).

Single Platform Bidirectional

This specimen (2-58176) is a small obsidian nodule from which 3 small (less than 20.0 mm in length) flakes and 2 large flakes (20.0+ mm in length have been detached.

Length: 44.6 mm Weight: 33.9 g
Width: 32.7 mm Provenience: Backdirt
Thickness: 22.0 mm

Double Platform Bidirectional

This core (2-58152) is a small split obsidian nodule from which 3 small flakes (less than 20.0 mm) have been detached from one edge and one large flake (20.0+ mm) from the opposite end. Specimen 2-58180 is a small obsidian nodule with some cortex remaining from which 3 small flakes and one large flake have been detached from one end and another small flake from the other. The remaining specimen (2-58214) is an obsidian nodule from which 2 large flakes have been struck from each end.

UCLMA#	*L*	*W*	*T*	*Wt.*	*Provenience*
2-58152	39.0	29.1	18.0	16.5	N20/W5 - L-3
2-58180	41.8	26.0	22.4	26.2	Backdirt
2-58214	49.6	35.0	27.0	53.0	N20/W5 - L-2

[All measurements in mm and g.]

CORE NUCLEI – EXHAUSTED CORES

All the specimens described are of obsidian and are the remnants of small obsidian nodules. Specimens 2-58194 and 2-58215 are nodules with some cortex still remaining from which several flakes have been detached.

UCLMA#	*L*	*W*	*T*	*Wt.*	*Provenience*
2-58196	34.6	23.0	26.4	28.1	N20/W5 - L-5
2-58194	45.0	30.0	28.1	38.4	N20/W10 - L-1
2-58215	49.0	34.5	18.0	36.6	N20/W5 - L-3
FC #84	46.3	29.1	13.5	14.1	N20/W5 - L-3

[All measurements in mm and g.]

LITHIC DEBITAGE

The debitage is dominated by obsidian (53.1%) followed by chert (42.4%) as the primary raw materials. These raw materials are readily and easily available from sources present in the immediate and near vicinity of the site. Most of the 1092 pieces of debitage are interior flakes with only a few secondary and primary cortex flakes present. Of the interior flakes, many show the characteristics of biface thinning flakes (cf. Crabtree 1972: 74-75; Shafer 1969:4-5). These debitage features would appear to indicate that while some primary tool manufacturing was carried out at the site, perhaps secondary and tertiary processes (e.g., resharpening, finishing of prepared preforms, etc.) were the main activities. Due to the small amount of debitage recovered, no further analysis is planned (Tables 5, 6, 7).

TABLE 5
Lithic Debitage — By Category and Material

Category	CHERT		OBSIDIAN		BASALT	
	#	Wt.	#	Wt.	#	Wt.
Flakes	174 (15.9%)	325.6 (21.4%)	326 (29.8%)	424.2 (27.9%)	16 (1.5%)	74.1 (4.9%)
Partial Flakes	230 (21.2%)	115.5 (7.6%)	213 (19.5%)	78.0 (5.1%)	22 (2.0%)	89.6 (5.9%)
Waste	58 (5.3%)	200.5 (13.3%)	42 (3.8%)	158.2 (10.4%)	11 (1.0%)	53.8 (3.5%)
TOTAL	462 (42.4%)	641.6 (42.3%)	581 (53.1%)	660.4 (43.4%)	49 (4.5%)	217.1 (14.3%)

[Weight measurements in grams.]

TABLE 6
Lithic Debitage by Category

Category	Number	Weight
Whole flakes	516 (47.2%)	823.9 (54.2%)
Partial flakes	465 (42.6%)	412.5 (27.2%)
Waste	110 (10.2%)	283.1 (18.6%)
TOTAL	1092	1519.5 grams

GROUND STONE ARTIFACTS

Pestle fragment—This specimen (2-58186 is a ground granitic fragment with a bi-convex cross section that was once part of a large pestle. There is some edge damage consisting of light battering and crushing on one of the leading edges.

Length: 29.0+ mm Weight: 123.0 g
Width: 60.0 mm Provenience: Backdirt

Manos — Two manos were recovered from the deposits. Specimen 2-58136 is a roughly shaped fragment made on a tabular piece of granitic rock. Specimen 2-58185 is made on an ovate shaped tabular piece of granitic rock. On both pieces one surface has been ground smooth probably from use. Specimen 2-58185 has been exposed to some degree of heat as it is partially blackened on a large portion of the working face.

UCLMA#	*L*	*W*	*T*	*Wt.*	*Provenience*
2-58136	100.0	69.0	40.5	455.0	N20/W5 - L-1
2-58185	127.0	82.0	42.1	568.0	Backdirt

[All measurements in mm and g.]

FAUNAL REMAINS

Very little faunal material was recovered from the deposits at Stolen Shelter probably due in large part to the poor protection offered by the site from the elements. Of the bone and teeth recovered attributed to large mammals, the only identifiable species present are deer (*Odocoileus* sp.) and Big horn (*Ovis canadensis*). Most of the large mammal material is composed of unburnt long bone splinters and it is quite probable that the long bones were split open for their marrow thus accounting for the condition of the recovered bone. The remains of several unidentified small and medium mammals along with *Sylvilagus* sp. and *Lepus* sp. are also present in some abundance. Again, much of the faunal material is badly fragmented, thus hindering positive identification. Several small bird bones and one fish vertebra were also recovered but have not yet been identified.

HUMAN SKELETAL MATERIAL

No human skeletal remains were recovered at Stolen Shelter.

TABLE 7
Lithic Debitage by Unit/Level, Material and Category

Material: CHERT

N20/W5 [N20/W10]

Category	Flakes		Partial		Waste	
	#	Wt.	#	Wt.	#	Wt.
Level 1	14 [4]	23.7 [9.5]	15 [11]	13.7 [15.0]	26 [1]	19.0 [2.0]
Level 2	47 [20]	153.2 [28.5]	41 [15]	33.2 [34.0]	7 [4]	4.7 [54.0]
Level 3	43 [10]	4-.1 [5.0]	46 [24]	40.7 [12.0]	11 [2]	16.8 [14.0]
Level 4	26 [-]	48.0 [-]	66 [-]	38.5 [-]	8 [-]	5.0 [-]
Level 5	10 [-]	18.1 [-]	12 [-]	13.4 [-]	- [-]	- [-]

Material: OBSIDIAN

N20/W5 [N20/W10]

Category	Flakes		Partial		Waste	
	#	Wt.	#	Wt.	#	Wt.
Level 1	50 [19]	55.7 [50.9]	30 [17]	23.9 [17.2]	7 [-]	36.8 [-]
Level 2	56 [34]	72.3 [72.0]	43 [15]	21.3 [12.9]	13 [5]	12.1 [20.9]
Level 3	30 [32]	39.8 [63.0]	19 [27]	17.8 [20.0]	7 [1]	3.9 [1.0]
Level 4	29 [-]	44.5 [-]	41 [-]	30.1 [-]	8 [-]	1.8 [-]
Level 5	26 [-]	26.0 [-]	21 [-]	15.0 [-]	1 [-]	1.5 [-]

Material: BASALT

N20/W5 [N20/W10]

Category	Flakes		Partial		Waste	
	#	Wt.	#	Wt.	#	Wt.
Level 1	1 [2]	8.9 [18.0]	3 [2]	1.3 [1.0]	3 [1]	1.5 [39.6]
Level 2	2 [1]	9.6 [4.0]	2 [-]	2.6 [-]	4 [-]	14.2 [-]
Level 3	2 [1]	4.0 [1.3]	3 [4]	6.8 [33.8]	1 [2]	0.6 [33.7]
Level 4	7 [-]	28.3 [-]	8 [-]	8.3 [-]	- [-]	- [-]
Level 5	- [-]	- [-]	- [-]	- [-]	- [-]	- [-]

[All weights in grams]

FRESHWATER PELECYPOD DATA

Shell remains were present in the deposits of the site in small quantities. The fragments were identified as *Margaretifera margaretifera* (Margaretiferidae) a muddy bottom, moderate to slow stream velocity, filter-feeding freshwater mussel (Smith, personal communication). It is possible that they were utilized as a food resource.

SUMMARY

Stolen Shelter is a limited occupation, temporary streamside campsite/shelter quite probably utilized by the ethnographically known Yamasopo group of the Northern Paiute (Stewart 1939). The intermittent use of the site can be relatively dated using the typable porjectile points present to a range of ca. 3500 B.C. to historic times. It is probable that the site was more frequently used late in time (A.D. 400 to historic) rather than early as the majority of the projectile points are of the DSN/Rose Spring/Eastgate/Elko Series which are indicative of late occupation in the north central Great Basin. It should be pointed out that the above inference based on the projectile point types is at best only a reasonable guess, as no radiocarbon dates have yet been obtained for the site. The overhang was probably utilized as a temporary, general hunting/gathering camp by a small group due to its protected location and its nearness to both riparian and sagebrush-grass environmental zones. The small quantity of artifacts and lithic debitage recovered from an undisturbed context, along with the small amount of faunal material, argues for a low emphasis on primary manufacturing and/or processing activities, quite possibly due to the briefness of occupation or their location/occurrence elsewhere away from the site. The lithic debitage especially argues for secondary and tertiary manufacturing or maintenance activities. The ground stone artifacts (manos and pestles), both on the surface and in the deposit, appear to indicate that some seed processing (and hence gathering) was carried out at the site, although no metates were noted, perhaps due in part to the depredations of the relic collectors. In brief, Stolen Shelter and its artifact assemblage support the conclusion of its use as a temporary hunting/gathering camp peripheral to the larger main sites in the surrounding area (Busby, Bard and Spencer 1975; Bard 1976; Busby 1975).

CONCLUDING REMARKS

The archaeological research and salvage project in the Valley of the North Fork of the Little Humboldt River was conceived with the purpose of adding to the current sparse data base in this area of the north central Great Basin. Evidence based on the excavation of Stolen Shelter suggests that this site was used as a intermittent temporary home base camp concerned with the exploitation of both riverine and sagebrush/grass zone resources since 3500 B.C. The surface collection and analysis of the Pink Point Site assemblage suggests that this temporally circumscribed open site, located at the interface of the riverine and sagebrush/grass ecological zones, was used as a temporary campsite. Intensive lithic analysis of the debitage from this site can serve both as a model for how such studies can be conducted elsewhere in the Great Basin and more importantly, it illustrates the nature and significance such analyses can have in the elucidation of culturally conditioned prehistoric technological practices and directly related activities.

Both sites appear to fit into the general settlement pattern delineated by Stephenson and Wilkinson's (1969) site survey of nearby areas. The sites share common physiographic characteristics of location on a valley edge, on a stream or river terrace associated with more or less permanent water resources and have a good view of the surrounding territory. As well, the sites are fairly typical of the temporary hunting/gathering camps postulated for the prehistoric past by Steward (1938) as an outgrowth of his ethnographic studies of remnant Great Basin groups. Although the Pink Point Site was temporally confined to a specific time range, the general temporal span of human occupation in the valley extends back as early as ca. 5000 B.C. on the open sites and as early as ca. 3500-4000 B.C. for the caves and rockshelters.

The project archaeologists initially intended to conduct a valley-wide survey and excavation (problem oriented) research project. Through these two reports and forthcoming reports on the excavations at Ezra's Retreat (in preparation) and the North Fork Lithic Scatter (cf. Bard 1976) we have partially attained that goal. However, even in this very remote and poorly known area, we were only a step ahead of the dambuilder and his bulldozer. The Chimney Creek Dam Project has entirely obliterated Stolen Shelter, petroglyph site Hu-308, several lithic scatters and the impounded waters of the dam have flooded a few of the known open campsites as well.

Although the goals of academic problem oriented archaeological research sometimes seem at odds with the goals of "conservation" archaeology, we have attempted to demonstrate, with the publication of these two reports, that archaeological salvage, when and where necessary, can be incorporated into problem oriented research projects. Unfortunately, with the ever rapid destruction of our prehistoric cultural resources, archaeologists will find themselves confronted with such situations again. We hope we have illustrated the value of

conducting carefully planned and academically oriented excavations/collections of sites where mitigation is no longer possible and destruction is inevitable.

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NOTES

[1]Busby and Bard wrote the introductory and concluding remarks and revised the two site reports; the report on the Pink Point Site was written by Busby, Bard and Clark; and the Stolen Shelter report was done by Busby, Spencer and Swezey.

[2]Stolen Shelter has since been destroyed by the Chimney Creek Dam project on the North Fork of the Little Humboldt River.

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