

THE ARCHEOLOGY OF A UTAH LAKE SITE

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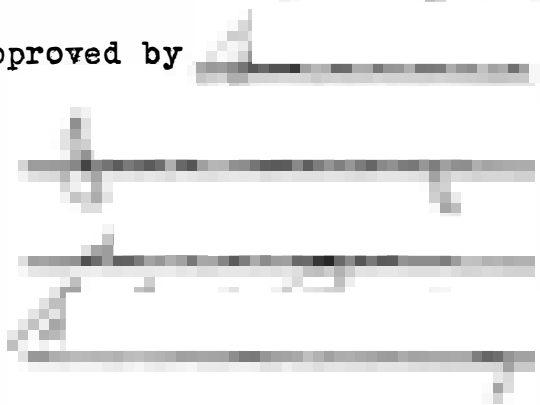
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Approved by

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Table of Contents

I. INTRODUCTION.....1

II. GEOLOGY OF THE AREA.....3
Origin of the Valley.....3
Origin of Utah Lake.....4
Constancy of Utah Lake Level.....5
The Utah Lake Site.....9

III. HISTORY OF THE AREA.....11
First Travelers - Baron la Hontan.....11
Father Escalante.....11
Etienne Provost.....15
Ashley and the Trappers.....16
Captain Bonneville.....17
Captain Fremont.....18
Captain Stansbury.....18
Advent of the Mormons.....19
Disappearance of the Indians.....20

IV. SITE DESCRIPTION.....23
Location.....23
Stratigraphy.....23

V. MATERIAL CULTURE: BONE.....25
Unworked Bone.....25
Worked Bone.....28
Awls.....28
Gaming Bones.....30
Bone Bead.....31
Elk Tooth Pendant.....32

VI. MATERIAL CULTURE: POTTERY.....34
Paste.....34
Temper.....35
Slip.....36
Process of Manufacture.....37
Surface Treatment.....38
Wall Thickness.....40
Body Shape.....40
Rim Shapes.....41
Body Design.....43
Rim Design.....45
Firing.....46
Repairs.....47
General Condition.....48

VII. MATERIAL CULTURE: STONE.....	49
Dart or Arrow Points.....	49
Spear Points.....	51
Knives and Scrapers.....	52
VIII. SUMMARY AND CONCLUSIONS.....	54
BIBLIOGRAPHY.....	65

APPENDIX

Figure I:	Map of the Area
Figure II:	Drawing of Layers of Lake Bottom Mud
Figure III:	Bone Artifacts
Figure IV:	Pottery Body Designs
Figure V:	Pottery Rim Shapes
Figure VI:	Pottery Rim Designs
Figure VII:	Stone Artifacts

CHAPTER I

INTRODUCTION

CHAPTER I INTRODUCTION

The aim of this paper

The material presented and analyzed in this paper was excavated in November 1939 by Professor Elmer R. Smith, Dr. C. E. Dibble and a group of about one hundred students in archeology from the University of Utah. The artifacts were catalogued and classified by Dr. Dibble.

As in any other archeological investigation, the problem is threefold; (1), to identify the people whose material culture has been recovered; (2), to find out to what other peoples in the same area they were related culturally; and (3), to determine the period of time they occupied the area.

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CHAPTER II

GEOLOGY OF THE AREA

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GEOLOGY OF THE AREA

Utah Lake, on whose shore the site under consideration in this paper is located, is thirty-five miles south of the Great Salt Lake and is connected with it by the northerly flowing Jordan River. The Lake is situated in Utah Valley which is formed by mountain ranges on three sides and by gently rising plains on the fourth. On the east is the Wasatch Range, on the north is the Traverse Range and on the west are the Lake Mountains. The gently rising plains form the south end of the valley.

Origin of the Valley

This valley, as do many other valleys which lie at the west base of the Wasatch Mountains, owes its origin to the Wasatch Fault; the valleys occupying the position of the downthrown block.¹ The valley is therefore of great antiquity. However, there is some controversy as to whether Utah Lake has occupied the area continuously since the occurrence of the Fault.²

Due to the deposition of material, the valley

¹ Pack, Frederick J., Lake Bonneville Bulletin University of Utah, Vol. 30, No. 4, Salt Lake City, 1939, P. 92.

² Ibid., pp. 92-93.

floor is very shallow; this gives rise to the phenomenon, that a variation of a few feet in the depth of the Lake causes a tremendous variation in its area.

According to the geologists, Utah Lake is a greatly dessicated remnant of Lake Bonneville. This is also true of the Great Salt Lake, the difference being that Utah Lake is a body of fresh water, whereas Salt Lake is not. The highest stage of Lake Bonneville, its overflow and subsequent recession to the Provo level were contemporaneous with the maximum of the last, or Wisconsin, glacial stage of the Pleistocene Period. This maximum is presumed to have occurred from 40,000 to 25,000 years ago. However, a wide range of error must be allowed for, in calculations as general and uncertain as these.³

Origin of Utah Lake

Lake Bonneville remained at the Provo level longer than at any other, thus forming the largest terrace. About 20,000 years ago climatic conditions began to change, and the Lake began to dry up. The Lake receded, fluctuating slightly, and forming many small terraces, but always going down. It reached the Stansbury level about 10,000 years ago, and remained there for

³ Antevs, Ernest, On the Pleistocene History of the Great Basin. Carnegie Institute of Washington, Pub. 352, 1925, pp. 77, 101.

a sufficiently long period to form the third largest terrace; then it again began to recede to where it is today.

Pack estimates that it probably took about a thousand years for the Lake to form the Stansbury terrace.⁴ After it began to recede, it produced about twenty intermediate terraces between the Stansbury and the present level.⁵ Some of these terraces appear to be so recent as to make it hard to tell whether they belong to Bonneville or to recent times. It should be remembered however that since Utah Valley is slightly higher than Salt Lake Valley, its floor would therefore become habitable before that of Salt Lake Valley. The site under investigation is in very close proximity to the Utah Lake shore.

The most plausible conclusion to draw from these facts, taking into consideration the shallowness of the valley, the nearness to the lake shore, and the variability of the Lake level, is that the area has probably been habitable from 1500 to 2000 years at the most.

Constancy of Utah Lake Level

During the past fifteen years the level of the

⁴ Pack, op. cit., p. 43

⁵ Pack, loc. cit.

water in Utah Lake has risen five feet. In 1933 the Lake level was seven feet below compromise level.⁶ In March of 1946 the Lake was two feet below compromise level.⁷ The variation during the last 2000 years was undoubtedly much greater than this. At the present time the site, which was on the shore in 1939, is now covered with two feet of water. At various times during the period since the site was occupied it may very probably have been covered with even more than two feet of water.

During all of this time there was much water still flowing into the Utah Valley "abayment", and consequently it overflowed into Salt Lake Valley as it is now doing.

Father Escalante, the first traveler to come into the area and keep a written record, described the Lake as being six leagues wide and fifteen leagues long.⁸ In terms of the measure we use, that would be approximately fourteen miles wide and thirty-six miles long. During recent normal times the Lake is ten miles wide and twenty miles long.⁹ This variation may be due to two factors;

⁶ Hansen, George H., "An Interpretation of the Past Climatic Cycles, from Observations Made of Utah Lake Sediments", Utah Acad. Science, Arts and Letters. Vol.XI, 1934, p. 181.

⁷ Salt Lake Tribune, Vol. 152, No. 149, March 12, 1946, p. 18.

⁸ Auerbach, Herbert S., "Escalante's Journal", Utah Historical Quarterly, Vol.II, Oct. 1943, p. 71.

⁹ Pack, op. cit., p. 91.

first, the Lake bottom is very shallow, and as mentioned before, a slight change in its depth makes a marked difference in its area; second, Escalante may not have been very accurate in his estimation of the Lake's size.

In this connection there is an interesting geological fact concerning the Lake worth noting; its average depth is only about five or six feet, which is extremely shallow. Even when the streams that feed the Lake are completely free from eroded material, the Lake itself and the Jordan River that flows from it are muddy and turbulent. This is due to wave action. The Lake is so shallow that the waves are eroding its bed, with the result that its waters are in a constant state of turbidity.¹⁰ Utah Lake is one of the few lakes in the world today whose floor is being eroded in this manner.

To illustrate the variability of this body of water in recent geologic times, Dr. George H. Hansen of the Department of Geology, Brigham Young University, is quoted as follows:

"During the summer of 1933 the water level of Utah Lake was much lower than it had been at any time since white man moved into this region. In fact, the lake surface, due to pumping operations for irrigation purposes, was lowered approximately four feet below its natural outlet, and some seven

¹⁰ Ibid., p. 93

feet below what has been termed compromise level. Because of the extreme low ebb of last season and because of the unusually gentle slope of the lake shore, wide areas of the lake bottom muds were exposed for the first time to the view of man.

"In August while the water was at an extreme low level two pits were dug in the lake off the east shore, at a location about one mile north of the mouth of River. The accompanying map shows the extent of the shore line zones together with the location of the area." (see appendix, Fig. 2) "Pit No. I near the water's edge was excavated to a depth of seven feet, seven inches and No. II, four hundred and thirty-five feet to the west, eight feet, two inches in depth. The material encountered in pit No. II seems unusually interesting as a sample climatic marker of the immediate geologic past. The first nine inches were made up of black mud and represent recent lake bottom accumulations belonging to the period, while Utah Lake stood at its recent normal level. Immediately under this black mud we encounter a two inch layer of sand and shells. The sand is of the same type now accumulating at the present waters edge and the shells are broken indicating that they were wave washed along the old shore line. Below this a thirty-three inch bed of sandy shale yielded drift wood, some of the pieces being several inches in diameter, also wads of peat and verticle plant roots in place. The plant roots are remnants of root systems that once supported rushes and other types of vegetation in an area normally covered by at least seven feet of water. Under this we again encountered a two inch layer of sand and shells. The sand is again of a beach variety and the shells are also broken bearing evidence of shore-line conditions. Below this second sand layer, once again, we encountered more mud slightly sandy in places and carrying verticle plant roots in place, together with additional pieces of drift wood. Within six inches of the bottom of the pit we again encountered sand and shells bearing evidence of shallow water conditions.

"Here it seems we have evidence of periods in the immediate geologic past when Utah Lake, undisturbed by man, actually receded to a level that allowed the shore line vegetation to grow in an area normally covered by twelve feet of water."¹¹

¹¹ Hansen, loc. cit.

The foregoing facts seem to prove that the Lake level is extremely variable and that it has been fluctuating during the past several hundred years.

The Utah Lake Site

The site under consideration is located near the present lake shore, slightly north of the point where the Provo River empties into Utah Lake. However, Dr. Hansen is of the opinion that during recent geologic times the river has meandered considerably. His belief is that the previous route was somewhat north of where it now is. So that, in fairly recent times, the piece of ground on which the site is located may have possibly been on the south instead of the north side of the river.

It would be natural for the area immediately adjacent to this Lake to have been used for camp sites, because man has always tended to make full use of lakes and other bodies of water. There is usually an ample supply of water, if not from the lakes themselves, from the influent streams. Other animals as well as man frequented the area, therefore man did not have to fight too hard for an existence. A large body of water tends to moderate the elements, i.e., to cool the air in the summer and to warm it in the winter. This is due to the fact that a body of water does not vary its temperature as readily as does a comparable body of land.

Both ancient and modern man have seen the advan-

tages of this area. It has been frequented more or less continuously since the recession of Lake Bonneville made it accessible; first, by the primitive forebears of modern Indians, second, by the pioneers and their Indian contemporaries, and, third, by the inhabitants of Provo City and its environs.

CHAPTER III

HISTORY OF THE AREA

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First Travelers - Baron la Hontan

The first report of the "Great Salt Lake" is given by a Frenchman named Baron la Hontan. In 1689 he claims to have had contact with some Indians from the region of the Great Salt Lake.¹ However, the report he gives is either wholly apocryphal or else it is badly garbled. In either case, because of the obvious inaccuracy of the story, it is of no significance to the present paper.

Father Escalante

The first traveler to come into this area who kept a reliable journal was Father Silvestre Velez de Escalante. Father Escalante was in search of a route from Santa Fe, New Mexico to Monterey, California. He came into Utah Valley on the twenty-third of September, 1776 by way of Spanish Fork Canyon. According to Harris, he recorded his observations as follows:

"We found the grass of the plains where we came recently burned over and others already burning from which we inferred that these Indians had thought us to be Comanches, or other enemies; and as they had probably seen that we were bringing animals, it had been their intention to destroy the pasturage along our way, so that because of the lack of this we would be obliged to leave the valley sooner. But as

¹ Alter, J. C., "Some Useful Early Utah Indian References," Utah Historical Quarterly, Vol. I, No. 1, Jan. 1928, pp. 27-28.

it is so large and broad, they could not do it in so short a time, even though they had put fires everywhere. For this reason our small party remaining in this location, as soon as we had halted, Father Francisco Atanasio and the guide Silvestre, and his companion Joaquin and the interpreter Muniz, left for the first of the settlements, and going as rapidly as possible, though the horses were so fatigued, in order to arrive this afternoon, they went six leagues and a half to the north-northwest. They arrived, and were received by some of the men with their weapons ready to defend their families and homes. But as soon as Silvestre had spoken to them, they changed their warlike appearance to the most courteous and simple expressions of peace and affection. They took them very cheerfully to their simple huts, and after they had embraced them in a singular manner, and signified to them that they desired peace, and that they loved us as much as our best friends the father gave them opportunity, so that they could talk at length with our guide Silvestre, who gave them an account of what he had observed and seen, and spoke so much in our favor, of our design and work that we could not have wished for anything better.*²

The Spaniards remained among the Indians about three days, during which time they observed the Indians and converted them. The Indians seemed very receptive to the advances of the Christians, and asked them to return the next year and establish a mission in the area. The fathers promised that they would, not knowing at that time they would be unable to return. Escalante asked the Indians to give him some token that would convince the "big chief of the Spaniards" that the Indians were sincere about their intentions to become Christians. One of the

² Harris, W. R. The Catholic Church in Utah. Intermountain Catholic Press, Salt Lake City, Utah, 1909, p. 175.

guides showed the Indians a rosary.

"The Indians painted three figures on crosses; they brought the token to us, saying that the figure that had the most red color, or as they said blood, represented the big chief, because in war with the Comanches he had received the most wounds; the other that had less blood was inferior to the first one; and the one that had no blood was not a warrior, but was of authority among them. These three figures of men were rudely painted with earth and red-ochre, on a small piece of deer skin;-----."3

Describing Utah Lake and the area surrounding it Father Escalante writes:

"In the surrounding area dwell Indians who live on the abundant fish supply from the lake; for which reason the Utas Sabuegas call them the Come Pescado (Fish Eaters). In addition they gather green seeds on the plain and make gruel with them to which they add their catches of hares, rabbits and wild hens of which there are many around here-----."4

"-----There are also buffaloes, not very far away to the Northwest, but fear of the Comanches hinder these Indians from hunting them. Their dwelling places are huts of cane, of which they make curious baskets and other curious articles. They are very poorly clothed; the most decent garment they wear is a jacket of buckskin and moccasins and leggings of the same. For cold weather they have blankets made of rabbit skins; they use the Uta language, but with a great many changes and accents, and even some foreign words. They are good looking and most of them without any beard. In all parts of these mountains, south-south-west and west and southeast, there live a great many of the same people as the Lagunas, with the same language and gentleness, among whom might be formed a province of many large settlements."5

3 Harris, Ibid., p. 179.

4 Auerbach, Herbert S., "Escalante's Journal", Utah Historical Quarterly. Vol. II, Oct. 1943, p. 70.

5 Harris, op. cit., p. 182.

"Los Timpanogotzis are so called because of the lake, on which they live, which is called Timpanogo, the name being peculiar to this lake because the ordinary name which they give to any lake is Fagarori."⁶

In referring to these Indians Escalante employs several different names throughout his journal. He sometimes refers to them as "Yutas", the "Lagunas", the "Come Pescado" or "Fish Eaters", and at other times as the "Timpanogotzis". "Yutas" is an Indian word, so that there is no ambiguity here. However, in the case of the other three names, the confusion may be clarified, as follows:

The word "Lagunas" in Spanish means "lake". The other Indians of this area had apparently never heard of the "Lagunas", although they knew of the area and the Indians that lived in it.⁷ For their Indian name, William R. Palmer of Cedar City, Utah, a lay authority is quoted as follows:

"For the name of the Utah Valley Indians I get several pronunciations of what is apparently intended to be the same word. 'Ning,' or 'Nung,' or 'Nunge' means Indians. 'Pa-ga-wa-vant' means lake shore or waters edge. One old Indian called the Utah Lake tribe 'Nung-e-pa-ga-wa-vants.' The translation will be clear--Lake Shore Indians. This means precisely the same as Escalante's Spanish word Lagunas."⁸

"Come Pescado" is merely the Spanish way of saying "fish eaters", probably a Spanish translation of a nick-

⁶ Harris, *Ibid.*, p. 183

⁷ Palmer, William R., "Indian Names in Utah Geography", Utah Historical Quarterly, Vol. I, No. 1, Jan. 1928, p. 39.

⁸ Ibid.

name used by the "Yutas Sabueganas."

The origin of the name "Timpanogotzis" is rather obscure. It may very well have been a corruption of the true Indian word which does not designate the Indians themselves, but Utah Lake and Provo River. "Timp" means rock or rocky; "pa" means water; "noquint" means running; and "pa-garit" means lake.⁹ "Timpanoquint" means "water running over rocks" and this was the name given to the Provo River. "Timpanoch-pa-garit" is the name given to Utah Lake itself.

Escalante uses the names, "Lagunas" and "Timpanogotzis" interchangeably in his journal, thus implying that there were one and the same people.

Etienne Provost

The next authenticated account we have of the area under consideration is that of Etienne Provost, a trapper, who camped on the shores of the Lake in 1823. According to Chittenden, an historian, the following incident occurred:

"On the shore of Utah Lake, where the tributary enters which now bears the name (abbreviated) of

⁹ Palmer, William R., "Utah Indians, Past and Present". Utah Historical Quarterly, Vol. I, No. 2, April 1928, p. 14.

Etienne Provost, this capable frontiersman was for once completely deceived by the Indians. He had fallen in with a band of Snake Indians under an evilminded chief, Mauvais Gauche, and was invited to smoke the calumet of peace with them. The chief said it was contrary to his medicine to have anything of metallic character nearby while the ceremony was going on, and requested that both parties should remove their weapons to a distance. Provost yielded to the chief's importunity, for he had learned that on the whole it was better to humor the superstitious whims of the indians. Himself and his men placed their guns to one side, and sat down in the circle to smoke. In the midst of the ceremony the Indians sprang up at a preconcerted signal and fell upon the whites with knives and tomahawks which they had kept concealed within their clothing. Most of the men were killed. Provost, who was a powerful and athletic man, extricated himself from his assailants, and with three or four others made his escape."¹⁰

The Indians referred to above are the Snake Indians. In 1834, the headwaters of the Green and Bear Rivers, constituted the southern limits of the Snake Indian territory, according to Russell, an ethnographer.¹¹

Ashley and the Trappers

The Utah Lake area was already well known to the trappers and fur traders, although there are very few written accounts of it. In 1825 a fort was built near the present site of Provo, Utah by Ashley's men.¹² It was called Fort Ashley and later referred to as Fort Utah. In 1826 Ashley improved his defenses at Fort Ashley by

¹⁰ Chittenden, H. M., The American Fur Trade of the Far West, Francis P. Harper, New York, 1902, p. 276.

¹¹ Russell, Osborne, Journal of a Trapper, Boise, Idaho, 1921, p. 144.

¹² Chittenden, op. cit., p. 973.

the installation of a six pound cannon which he brought overland from the east.¹³

Major James Bridger is given the dubious honor of being the first white man to taste the waters of the Great Salt Lake. He did this in the winter 1824-25.¹⁴ He has nothing, however, to say concerning Utah Lake.

These trappers worked the area for many years, but they cared more about the beaver than they did about the Indians.

Captain Bonneville

It is quite apparent we have many gaps in the history of the tribes frequenting Utah Lake and the surrounding area. The next historical reference to the area and its inhabitants is the one made by B. L. E. Bonneville, who mentions an encounter with a band of "Eutaw" Indians while he was camped on the Bear River north of the present site of Ogden, Utah.¹⁵ This was a band that had apparently wandered far to the north in their search for food. Captain Bonneville was in the area about 1834. By this time there were forts and trading posts

¹³ Ibid.

¹⁴ Chittenden, op. cit., p. 258.

¹⁵ Irving, Washington, The Adventures of Captain Bonneville, University Library Association, Philadelphia, p. 491.

scattered all over the Great Basin and the area north of it. There were some strange men here at that time, all of whom were of a very hardy stock, - Americans, Frenchmen, Englishmen, Spaniards, and some "without a country". All of them were out to make money for themselves and their trading companies.

Captain Fremont

Early in 1843 Captain John Charles Fremont and his party rounded the southern end of Utah Lake on their way back from an exploration in the west. For some unknown reason it appears that Fremont thought it to be an arm of the Great Salt Lake. This mistake seems inconceivable, since the latter is a salt lake, while the other is, of course, fresh.¹⁶ He mentions nothing that gives even the slightest hint as to the origin of the Indians living in the area.

Captain Stansbury

From the Journal of Captain Howard Stansbury we get the following report on the Indians around Utah Lake in the fall and winter of 1849;

"The native tribes with whom we came in contact in the valley were the most degraded and the lowest in the scale of being of any I have ever seen. They

¹⁶ Nivins, Allan, Fremont, The West's Greatest Adventurer, Harper Bros., 1928, p. 212.

consisted of the 'Root-Diggers,' a class of indians which seemed to be composed of outcasts from their respective tribes, subsisting chiefly from roots dug from the ground, and seeds of the various plants indigenous to the soil, which they grind into a kind of a flour between two flat stones. Lizards and crickets also form a portion of their food. At certain seasons of the year they obtain, from both the tributaries of the Salt Lake and Lake Utah, a considerable quantity of fish, which they take in weirs or traps, constructed of willow bushes. Those that we saw were branches from the Shoshonees or Snakes, and from the large and warlike tribe of Utahs, which latter inhabit a large tract of land to the southward. They are known among the traders by the designation of 'snake-diggers,' and 'Utes;' those of the latter tribe, which inhabit the vicinity of the lakes and streams and live chiefly on fish, being distinguished by the name of 'Pah Utahs,' or 'Pah Utes,' the word Pah, in their language, signifying water."¹⁷

Stansbury was convinced that these Indians were essentially scavengers who were prone to thievery. They constantly bothered the surveyors in their work by stealing their horses, cattle and even equipment.¹⁸

Advent of the Mormons

Stansbury came into this area two years after the Mormons, who arrived in 1847. During the winter of 1849 the depredations of the Indians in the Utah Lake and

¹⁷ Stansbury, Howard, Exploration and Survey of the Valley of the Great Salt Lake of Utah, Lippincott, Grambo and Co., Philadelphia, 1852, p. 148.

¹⁸ Ibid., pp. 48-150.

Payson area were very pronounced until the situation was brought to a head. The Mormon policy had always been to humor the Indians, helping them to adjust to a sort of community life with the whites as friendly neighbors. Yet even this policy of appeasement did not work all of the time. Stansbury describes the conflict in these words:

"After the party left Lake Utah for winter quarters in Salt Lake City, the Indians became more insolent, boasting of what they had done--driving off stock of the inhabitants in the southern settlements, resisting all attempts to recover them, and finally firing upon the people themselves, as they issued from their little stockade to attend their ordinary occupations. Under these circumstances, the settlers in Utah valley applied to the supreme government, at Salt Lake City, for counsel as to the proper course of action. The president (Brigham Young) was at first extremely averse to the adoption of harsh measures, but, after several conciliatory overtures had been resorted to in vain, he very properly determined to put a stop, by force, to further aggression, which, if not resisted, could only end in the total destruction of the colony."¹⁹

Disappearance of the Indians

On one occasion Brigham Young sent a body of soldiers to Fort Utah, in order to subdue the Indians. A fight ensued in which the Indians were badly beaten. This was only one of many such wars or battles between the pioneer settlers and the Indians. It should be said, however, that the Mormons were not trying to wage a war

¹⁹ Stansbury, Ibid., pp. 148-149.

of extermination.

It was not very long until the Indians had completely withdrawn themselves from that area.

Palmer advances the following theory as to their origin and disappearance.

"----another old man have the name of the Utah Lake Indians a 'Pa-ka-an-uints' or 'pa-ga-an-uints.' A third man, the oldest and best informed as to Utah Valley and its primitive inhabitants of any I have met, gave the tribal name a 'Pa-ga-wa-vant-uints,' the two latter names also define the Lagunas as 'dwellers by the lake,' but also definitely connects them with the Uinta Indians of Eastern Utah. The name indicates that they were originally Uinta Indians who came over and settled on the shores of Utah Lake. This explains why they made their expeditions eastward, and why they were not as well known to the Southern Pahutes as were the Puaguampe who lived a hundred miles further away. They were drawn to the Uintas by ties of relationship.

"So far as my informants know, the Pagawavants are now, as a clan, extinct. It is supposed that when the Government established the Uinta Reservation, the Utah Valley was gathered to it, and if any of their blood is left it is mingled with the Indians at White Rocks, Utah."²⁰

Escalante's name for the Utah Lake Indians at the time he was there was "Lagunas". This gives us the clue whereby they can be classified. Palmer finds their name to be "Nung-e-pa-ga-wavants"²¹ or "Pa-ga-wa-vant-uints."²² The word "uints" leads to the conclusion that

²⁰ Palmer, op. cit., pp. 39-40.

²¹ Palmer, op. cit., p. 14.

²² Palmer, op. cit., pp. 39-40.

these people were originally from the Uinta Utes of Eastern Utah, and that they had, in the process of gaining a livelihood, migrated from the East to the shores of Utah Lake, interposing themselves between the Shoshones on the north and the Southern Pahutes on the south. These are the same people that occupied the area up until the time that the Mormons came into Utah Valley in 1849.

At the present time none of these Indians is to be found in this area.

CHAPTER IV

SITE DESCRIPTION

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Location

The Site is located on the Taylor Ranch about eight miles due west of Provo City. The area is situated on flat level ground between the tamarisk and cattails which border on the lake shore, and the open ground which slopes away to the East. (See Appendix, Fig. I). The area is three-fourths of a mile North of the point where the Provo River now empties into Utah Lake. However, as mentioned in Chapter II on Geology, the channel as well as the mouth of the Provo River have possibly wandered considerably during recent geologic time. Therefore, the site, which is now on the North side of the river, may once have been on the south side at the time it was occupied.

In 1939, when the excavation took place, the site was approximately forty yards from the Lake itself. At the present time, 1946, the entire area of the excavation is covered by approximately two feet of water. This is due to the unprecedented rise of the Lake level during the past seven years.

Stratigraphy

During the excavation, several trenches were made, all of which showed the same stratigraphy. The

surface layer is four inches thick and consists entirely of beach-sand, below which is found the culture-bearing stratum. This stratum is from one and a half to three inches thick. In this stratum all of the material collected was found; there were no other layers of culture-bearing material. Below the specimen layer another layer of sand was unearthed, four to five inches in depth. Underneath this layer of sand an eleven inch layer of clay was discovered, below which sand was again encountered.

The sand covering the culture-bearing level appears to be beach sand; this indicates that the Lake, at some time subsequent to the occupation of the site, had risen high enough and for a sufficient length of time to allow of a deposit four inches thick. This fact does not necessarily date the site, because even though it were known how long it took for wave action to deposit that amount of sand, the variability of the Lake level over the past few centuries, would make it almost impossible to determine the date when the site was dry and habitable. As pointed out by Dr. Hansen in Chapter II on Geology, the Lake at some time during a fairly recent period had almost dried up.¹ It is possible also that the Lake level has risen a great deal during the same recent period.

¹ Hansen, G. H., "An Interpretation of Past Climatic Cycles from Observations Made of Utah Lake Sediments," Utah Academy of Science, Arts and Letters, Vol. XI, p. 161.

CHAPTER V

MATERIAL CULTURE: BONE

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MATERIAL CULTURE: BONE

Unworked Bone

There were a great many unworked bones found at the site; they are of two classes: (1) mammals, and (2) birds.

The mammal bones have been classified and are found to belong to the following animals:

Lepus californicus
deserticola (rabbit)

Antilocaprus ameri-
cana (antelope)

Canis lupus (wolf)

Bison bison (buffalo)

Odocoileus hemionus
macrotus (deer)

Ursus (bear)

Mephitis occidentalis (skunk).

The bird bones found were probably those of ducks, crows and pelicans. They were not too well preserved. Their size alone was the sole basis of classification.

The bones found are predominantly bison and deer. However, a surprisingly large number of wolf bones were recovered.

The prevalence of bison bones is a factor in determining the date of the site. The bison ranged over this area for a long period of time, according to Seton,¹

¹ Seton, E.T., Lives of Game Animals, New York, 1929.

who claims they were in the area as late as 1500. Due to the advent of the horse, the gun and the trapper, the bison gradually became extinct in the area.

By 1832, according to Steward², the bison were extinct in the Utah lake area; they had moved farther north, and were present only in a small section of northeastern Utah.

When Father Escalante arrived in the area in 1776 he reported:

"There are also buffaloes, not very far away to the Northwest, but fear of the Comanches hinder these indians from hunting them."³

This would seem to indicate that the bison were extinct in the area at the time of Escalante's arrival.

A singular fact is that at the time of the excavation, all of the large bison bones were broken. The most plausible explanation is that the Indians broke the bones in order to recover the marrow for additional food.

Another fact of interest concerning the bones found at the site is that there were no horse (*Equus caballus*)

² Steward, Julian H., Basin-Plateau Aboriginal Sociopolitical Groups, Smithsonian Institution, Bureau of American Ethnology, Bulletin No. 12, Washington, D.C., 1938, p. 37.

³ Harris, W.R., The Catholic Church in Utah, Intermountain Catholic Press, Salt Lake City, Utah, 1909, p. 182.

bones among them. Of course, they may have had the horse, but the complete absence of horse bones tends to refute this. According to Wissler, the Snake Indians had horses by 1742; the Comanche had them in 1714, and the Cheyenne had them as early as 1680.⁴ Escalante does not mention encountering any horses in this area at the time he was here. However, it is safe to assume that there were some in the area at that late date. There is ample evidence, on the other hand, to prove that the horse was an important factor in the domestic economy of the Indians in the area by 1850.⁵

Notwithstanding the fact that there was an abundance of bison bone found at the site, it nevertheless is true that the bison were extinct in the area by 1776 at the latest.

This apparent anomaly can be explained in one of two ways. Either the Indians hunted the bison - without the horse - in the immediate vicinity; or, with the aid of the horse, ranged farther north in their search for bison. The more plausible explanation is that the bison were hunted in the immediate vicinity, because of the

⁴ Wissler, Clark, The Influence of the Horse in the Development of Plains Culture, American Anthropologist, Vol. 16, January to March, 1914, p. 6.

⁵ Steward, Julian H., Basin-Plateau Aboriginal Sociopolitical Groups, Smithsonian Institution, Bureau of American Ethnology, Bulletin 120, U.S. Government Printing Office, Washington, D.C., 1938, p. 223.

aforementioned fact that there were no horse bones recovered during the excavation. This would seem to date the site "pre-Escalante", i.e., 1776.

Taking into consideration the foregoing evidence regarding animal bones it is plausible to adopt the general hypothesis that the remains recovered are those of a hunting culture.

Worked Bone

Awls

There were four awls found during the excavation of the site. They all fit into the Sharpened Splinter group. Each is a fortuitous splinter that has been sharpened on one end. (See appendix, Fig. 3, a, b, c, and f). There were no awls of the Spatulate, Split Bone, Ulnae, Polished Bone, or Slightly Modified types found. The awls, however do have a slight polish at the points, but this can be attributed to use rather than design.

Description of awls:

18546-1 see appendix (Fig. 3, f)
Length 9.20 cm, width 1.80 cm, thickness .50 cm, worked area (point) 2.5 cm.
Material: Long or rib bone of Ungulate.
Type: Sharpened Splinter.
Condition: Poor.

17529-4 see appendix (Fig. 3, c)
Length 8.40 cm, width .90 cm, thickness .45 cm.
Material: Long bone of Ungulate.
Type: Sharpened Splinter.
Condition: Poor, point broken off.

18516-7 see appendix (Fig. 3, a)
Length 5.0 cm, width 1.9 cm, thickness .25 cm, worked
area (point) 2.65 cm.

Material: Long bone of Ungulate, probably deer.

Type: Sharpened Splinter.

Condition: Fair

18546-1 see appendix (Fig. 3, b)
Length 4.10 cm, width 1.10 cm. thickness .40 cm.

Material: Long bone of Ungulate.

Type: Sharpened Splinter.

Condition: Good except for the point being broken off,
this specimen has a good polish on one side, but it
is no doubt attributable to use.

The only distinguishing feature of these awls
is that they all belong to the same group, namely, the
Sharpened Splinter type. Concerning the awls found in
the Promontory sites, Steward says:

"Awls were made from the long bones of mammals,
scapulae and bird bones. The only generalization
that can be made concerning them is that more often
than not bone splinters were used or the joint at
the end of the bone was cut off."⁶

In the Promontory culture another type is found;
it is the spatulate awl; and moreover, a number of them
bear an all over polish.⁷ These differ greatly from the
Utah lake type in that there were no Spatulate or Split
bone awls found at the Utah Lake site.

There has been nothing published to date con-
cerning Shoshone and Uintah Ute awls; there is none in the

⁶ Steward, Julian H., Ancient Caves of the Great
Salt Lake Region, Smithsonian Institution, Bureau of Ameri-
can Ethnology, Bulletin 116, Washington, D.C., 1937, p. 26.

⁷ Steward, Julian H., op. cit. pp. 26-27.

University of Utah Anthropology Museum. Hence no comparison can be made at present.

Gaming Bones

There were three Gaming Bones found; they are all made from the same material, i.e., the long or shaft bones of an Ungulate. (see appendix, Fig. 3, g, h, and i).

Description of Gaming Bones:

18529-3 see appendix (Fig. 3, g)
Length 4.8 cm, width 2.15 cm, thickness .40 cm.
Condition: Poor, it is badly eroded and the corner is broken off.

18558-1 & 2 see appendix (Fig. 3, i)
Length 2.35 cm, width 1.1 cm, thickness .30 cm.
Condition: This specimen shows remnants of a polish.

18529-20 see appendix (Fig. 3, h)
Length 3.4 cm, width 1.3 cm, thickness .30 cm.
Condition: fair.

The last specimen (18529-20) may possibly have been manufactured from a rib bone. It is hard to tell, however, because it has been worn down to a great extent. It is also an interesting specimen in that it is notched on the sides; five on each side, more or less evenly spaced.

These bones are about the same size and shape as the gaming bones used by the modern Indians of the west. There were gaming bones similar to these found at Promontory, but they differ in that the Promontory bones are larger and bear a design; also there are none from Promontory that have the side notching exhibited on 18529-20.

⁸ Steward, op. cit., p. 25.

The Utah Lake gaming bones differ also from the ones found at Deadman Cave in that they are generally smaller and do not have holes drilled in them as do the ones from Deadman.⁹

These bones were probably used in the well known Hand Game. They are similar to the ones used by the Western Indians of today.

"This game, (the Hand Game), is most widely distributed, having been found among 81 tribes belonging to 28 different linguistic stocks."¹⁰

Bone Bead

There was one bone bead found during the excavation. It is made from the bone of a very large bird, probably a pelican. It bears a high polish. One end shows signs of the cutting instrument, the other end has been more completely smoothed by the polishing process.

Description of bone bead:

18588-1 see appendix (Fig. 3, d)
Length 2.0 cm, thickness of bone .25 cm, thickness of bead 1.3 cm.

There were several beads similar to these found by Smith in Deadman Cave.¹¹ There were also two bead

⁹ Smith, E. R., The Archeology of Deadman Cave, Utah Bulletin of the University of Utah, Vol.32, No.4, November, 1941, pp. 36-37.

¹⁰ Culin, Stewart, Games of the North American Indians, 24th Annual Report of the Bur. of American Ethnology, Washington, D.C., 1907, p. 267.

¹¹ Smith, op. cit., p. 37.

fragments found by Steward in the Promontory caves, which are similar except that they are longer than the Utah Lake specimen.¹²

Bird bone necklaces are reported as being present among some of the Shoshone tribes of Central Nevada,¹³ but whether they were present in prehistoric times is not ascertainable now.

There are no bird bone beads reported among the Utes, either past or present.¹⁴

Elk Tooth Pendant

Another of the artifacts found is an elk tooth pendant, undoubtedly one of the milk teeth of a young elk. A hole has been drilled in one end for the insertion of a cord. It is in very poor condition. There are several others of this same type in the collection of Mr. L. L. Bunnell of Lake View, Utah. His collection is

¹² Steward, Julian H., Ancient Caves of the Great Salt Lake Region, Smithsonian Institution, Bureau of American Ethnology, Bull. 116, Washington, D.C., 1937, pp. 27,40.

¹³ Steward, Julian H., Culture Elements Distributions: XIII Nevada Shoshoni, Anthropological Records, Vol. 4, No. 2, University of California Press, Berkeley, California, 1941, p. 297.

¹⁴ Stewart, Omer C., Culture Element Distributions: XVIII Ute-Southern Paiute, Anthropological Records, Vol. 6, No. 4, University of California Press, Berkeley, California, 1942, p. 277.

purported to have come from around the Lake shore.

Description of elk tooth pendant:

18516-19 see appendix (Fig. 3, e)

Length 2.6 cm, width 1.85 cm, distance of hole from top
.50 cm, hole diameter .40 cm.

There is no mention of finding similar pendants in either the Deadman or the Promontory cultures. There is no mention of any in the modern Shoshone culture either, yet elk's tooth beads are ascribed to the modern Ute of the area by Stewart.¹⁵

15 Stewart, Ibid.

CHAPTER VI

MATERIAL CULTURE: POTTERY

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MATERIAL CULTURE: POTTERY

The artifacts recovered at the site are predominantly pieces of broken pottery. There were no whole pots found; the largest sherd being about two inches in diameter. However, even though there are no whole pieces in the collection, a great deal can be gained from the study and analysis of the remains.

Paste

Utah Lake Ware is variable as to the color and texture of its paste. The color varies from grey to brown to reddish-brown, and in some cases almost to black. The average, however, is a dull brownish grey. The paste varies from an extremely coarse to a medium-coarse texture; the average, being a medium-coarse.

There are some sherds that have a red-brown streak on the interior, visible only upon breaking. This is due to improper firing.

Promontory pottery paste is generally coarse, and its color ranges from dark grey to black; however, a great deal of this blackness is due to soot which had accumulated during use. Shoshone pottery is very coarse and generally of a grey color, sometimes varying to a brown or a red-brown; in general it is coarser than the Utah Lake

Ware. Uintah Pottery is likewise coarse; and its color varies from a grey to a grey-brown.

In paste texture, the Utah Lake Ware resembles the Promontory Ware more closely than it does the other two; but in color it resembles the Shoshone Ware more closely.

Temper

The temper of the Utah Lake Ware is variable; it runs from medium to coarse in the same sherd. In diameter, the temper particles range from 0.5 mm. to 2.0 mm., the average ranging from 1.0 mm. to 1.5 mm. There does not seem to be any correlation between the size of the temper particle and the kind of mineral employed. The temper consists of Quartz, Feldspar, and Biotite Mica. In quantity, the temper constitutes about ten per cent of the total material.

All three minerals appear in all of the sherds. The most abundant temper mineral is Quartz, the next Feldspar and lastly Mica. In some sherds, however, there is more mica than in others, but never is there as much Mica as there is Quartz or Feldspar.

The proportion of the minerals, the size of the temper particles, and the amount of temper in the pottery varies slightly from sherd to sherd; this can be

attributed to the fact that the pottery was probably made by many different people. There was probably no set formula for its manufacture.

Promontory temper consists mainly of Calcite crystals; it is coarse in texture, about the same as Utah Lake temper. Here the temper makes up about fifteen per cent of the total materials. Shoshone temper is approximately the same size as that of Utah Lake variety. However, in some cases it is slightly coarser, but not to any appreciable degree. It consists of Quartz, Feldspar, and Mica in the same proportions as Utah Lake Ware; the only difference being that there is more of it, the temper constituting about twenty-five per cent of the total material. Uintah temper texture is medium, generally smaller than Utah Lake Ware, and is wholly Calcite. It comprises about fifteen per cent of the total material.

The sherds from Utah Lake resemble the Shoshone type of pottery more closely than the other two in regard to type and size of temper material, but it does not contain as much temper as the Shoshone Ware.

Slip

Utah Lake Ware does not bear a slip or a wash;

neither do the Shoshone, Promontory, or Uintah wares. One Uintah sherd was found in the Uintah Basin by Steward, which bore a slip.¹ This is unusual, and may be attributed to the Pueblo influence from the South.

In the Utah Lake Ware the temper can be seen on the surface in most cases; more often than not it is the Mica, but in many instances the Quartz and Feldspar can also be seen. Of course the reason the Mica is more apparent is that Mica more readily reflects the light.

The temper can be seen through the surface of the Shoshone, Promontory and Uintah wares also. The Mica shows through in the Shoshone Ware just as it does in the Utah Lake Ware. The Promontory temper also can be seen on the surface, because its paste is a dark color and the temper, being calcite, is white. There is therefore a great deal of contrast between the paste and the temper. The Calcite temper of Uintah Ware shows through also, but not to the same degree as in the Promontory Ware.

Process of Manufacture

There is no proof as to the way Utah Lake Ware was shaped. There are three possible methods by which

¹ Steward, J. H., Pueblo Material Culture in Western Utah, Univ. of New Mexico Bull., Vol.1, No. 3, 1936, p. 19.

this pottery could have been shaped; the Coiling method, the Paddle and Anvil method, and the Hand-Shaping method. It could possibly have been any one of these, or perhaps a combination of two of them.

The surface undulates on both the interior and exterior. However, there are more irregularities on the exterior surface than on the interior. These undulations are neither even nor are they parallel. Moreover they do not follow a pattern.

It would be unsafe, at the present time to draw any conclusions as to the shaping method employed in the construction of Utah Lake Ware. Until more definite proof is found, it will suffice to describe the appearance of the surface, without attempting a classification.

Promontory and Uintah Wares are also hard to classify. They may have been made by the Paddle and Anvil method, but as yet there is no definite proof on this point.

Shoshone pottery may have been coiled, for there are marks on the walls of the vessels which run horizontally around them. These could have been the remnants of the coiling process, and yet, they may merely be the marks left by the smoothing instrument. However, it will take further investigation to determine this.

Surface Treatment

All of the sherds from Utah Lake have been

smoothed in some manner, some better than others, although none shows anything that resembles a polish. Many of the sherds have striations on the interior surface, presumably left by the smoothing instrument. Many of these appear to be the marks left by a stick or possibly a corn cob. Others could have been made by a small stone. These striations tend to be parallel, but they vary; some of them cross each other.

There is only one sherd with a striation on the exterior surface; the mark appears to have been left by a stick, probably in the smoothing process. This is the only one of its kind in the collection; the others do not bear any on the exterior surface.

The foregoing description of the surface treatment of Utah Lake Ware would seem to indicate a closed type of vessel, i.e., globular olla, rather than a bowl.

Fromontory pottery is very similar to this, except that there are striations on the exterior of Fromontory Ware, as well as on the interior.

The surface of the Shoshone Ware is not as freely smoothed as that of the Utah Lake Ware. There are striations on both the interior and the exterior; they are more or less parallel and run vertically up and down the walls of the vessel. The Uintah Ware is crudely smoothed, although there are no marks left by the smooth-

ing instrument on either the interior or exterior surfaces.

Wall Thickness

The thickness of the body walls of Utah Lake pottery varies from 4 to 11 mm., the average being 7 mm. Promontory pottery averages 6 mm. Shoshone pottery averages 8 mm. Uintah varies from 6 to 13 mm.

Body Shape

As mentioned before there were no complete pots found during the excavation. There are also no complete specimens of Promontory and Uintah Wares. These facts make any determination of shape purely hypothetical. Most of the sherds found are too small for any reconstructive analysis as to the probably shape of the vessel from which they came.

Most of the larger sherds tend to be slightly concave on the interior surface. This concavity is consistent throughout the sherd. This would seem to indicate that the vessels of which they were a part, were essentially globular in shape. This, coupled with the fact that most of the rim sherds found are recurved and of reduced horizontal curvature, indicates that the chief vessel type was a large-mouthed olla, similar to those belonging to Promontory Culture.² Some of these vessels

² Steward, J. H., Ancient Caves of the Great Salt Lake Region, Bureau of Am. Ethnology Bull. 116, 1937, pp. 44-46

must have been of a very large size, because many of the larger wall sherds reveal practically no curvature at all.

There is, however, one bottom sherd, 18537-1, (see appendix, Fig. 5, r) which possibly came from a pot similar in shape to Shoshone pottery, which resembles an inverted truncated cone. However, this sherd does not have the characteristic flange found on Shoshone pottery. There are several wall sherds in the collection which appear to have come from vessels with cylindrical walls.

One sherd was found, 18519-33 (see appendix, Fig. 4, f), which has the fingernail-punched design on the interior or concave surface, indicating that it was part of a bowl.

In summary, therefore, it may be said there are three possible shapes for the Utah Lake Ware; one, the large, wide-mouthed olla, similar to Fromontory Ware; two, the inverted truncated cone, similar to Shoshone Ware; and three, the open bowl, which is found in both the Fromontory³ and Uintah⁴ pottery.

Rim Shapes

The rim profile and curvature are easily deter-

³ Ibid, p. 48

⁴ Steward, op. cit., 1936, p. 19.

mined in Utah Lake Ware. Several tests were made in an effort to determine the approximate diameter of the orifice of the pottery; all of the sherds tested approximate a circle fourteen inches in diameter, varying slightly with each sherd, but never more than an inch. As pottery goes, this is very large, and indicates that the pots from which they came were also very large.

All of the rim sherds found appear to be recurved, thus belonging to an olla shaped vessel (see appendix, Figs. 5 and 6). However, several of them, 18514-38, -91 and 18518-19 for example, are doubtful; they could have been part of an olla shaped vessel, or a straight walled vessel, or an extremely large bowl; it is hard to determine.

All of the rim sherds without exception, are flared out at the lip, some more than others. Approximately ninety per cent of them are thickened; the thickened portion being the exterior surface. The sherds that are not thickened also flare toward the outside.

Many of the sherds are flattened on the top, most of these are the ones with the design on the rim. (See appendix, Fig. 5 and 6). However, there are several flattened rims without designs. About ten per cent of the flattened rims do not bear a design.

Promontory rims are similar to those from Utah Lake, in that they are recurved; they bear designs; they are thickened; and some are flattened. They differ, in that there are none which could have come from straight walled vessels. Moreover they are not thickened to the same degree as are the Utah Lake Rims. Shoshone rims are plain and straight, with no flaring or thickening. Uintah rims are flared, but not thickened or flattened.

Body Design

None of the Wares compared in this paper have ever been known to bear a painted design. However, there have been Uintah sherds found which bear traces of fugitive red.⁵

There were only eight sherds found during the excavation which bear body designs. Five of these are decorated with fingernail punching; one is punched with a stick; the other two show indentations, apparently from a finger impression.

Two of the fingernail-punched sherds are wall sherds (Fig. 4, b and d); two more (Fig. 5, o and p) are rim sherds from the same type of vessel. The design on the rim sherds is not on the rims themselves; it appears around the neck of the vessel. All these sherds have the

⁵ Ibid.

design on the exterior surface. The other fingernail-punched sherd has the design on the interior or concave surface (Fig. 4, f). This indicates an open bowl type of vessel. The other punched sherd (Fig. 4, d), appears to have been marked with a split dried-reed; the indentations are semicircular and all appear to have been made with the same instrument.

The other two decorated wall sherds (Fig. 4, a and e) were probably indented by merely pressing the thumb or forefinger into the wet clay. The indentations are from 1 to 2 mm. deep.

There were no wall sherds found with incised lines. Neither were there any found bearing an applique design. No sherds were found with handles either.

Promontory Ware is similar to Utah Lake Ware in that it evidences fingernail punching on the exterior surface. It is dissimilar in that Promontory Ware bears incised lines, probably made with a sharp stick. Neither does the Promontory type bear the thumb print decoration found on the Utah Lake Ware. Uintah Ware does not evidence any decoration.

Most of the Shoshone pottery in the University of Utah Anthropology collection does not bear a design. However, there are two sherds which bear fingernail-punched design; the punchings however, are much closer together

than those of the Utah Lake Ware.

In regard to body design, the Utah Lake Ware resembles more the Promontory Ware than the other two; however it does resemble Shoshone more than Uintah.

Rim Design

There were twenty rim sherds recovered from the site, each bearing a rim decoration. (See appendix, Fig. 5 and 6). All but one of these (Fig. 6, f) is thickened; all appear to be recurved; and all but two (Fig. 6, b and f) are flattened somewhat.

Fifteen of them are decorated with incised lines; four are decorated with finger punching; and the other one is decorated with a double row of holes, probably made with a stick. Of the fifteen with incised lines, one (Fig. 6, n) is decorated with three parallel lines running around the rim; two (Fig. 6, a and c) are decorated with crosses; the rest, i.e., twelve, have incised lines running diagonally toward the center of the orifice.

The other four rim sherds bearing a design, appear to be decorated with marks that have been made by pressing the end of the forefinger into the wet clay of the rim. (See appendix, Fig. 5, g and s).

Promontory Ware rims are also decorated. They

are similar, in that they bear incised crosses on the rim; they also bear incised lines running diagonally toward the center; and they are similar, too, in that they evidence a punched decoration encircling the rim. Promontory Ware is dissimilar in that there are no sherds with two rows of punching around the rim. Moreover, there are no Promontory specimens which have parallel lines encircling the rim; and there is none that has the finger punching comparable to the Utah Lake Ware.⁶

Uintah Ware has never been known to bear any kind of a rim design. There is also very little Shoshone pottery with a rim design. There have been sherds found, and reported by Steward, that are attributed to the Shoshone.⁷ These sherds bear a fingernail punched design running diagonally around the rim.

Firing

The color of the pottery is the only clue there is as to the method of firing. As far as can be determined Utah Lake, Shoshone, and Uintah Wares were probably fired in an open or oxidizing fire. Promontory Ware,

⁶ Op. Cit., 1937, pp. 45-47.

⁷ Steward, Julian H., Culture Element Distribution: XIII Nevada Shoshone, Anthropological Records, Vol. 4, No. 2, University of California Press, Berkeley, California, 1941, pp. 223, 242.

because of its dark color, was probably fired in a closed or reducing fire.

Most of the Utah Lake Ware recovered was fired quite evenly. In most cases it is very difficult to break or crumble it; this is due to three factors; one, the texture of the paste and the amount of temper present; two, the thickness of the walls; and three, the evenness and thoroughness of the firing. However, there are many sherds which were overfired, and crumble readily; while on the other hand there are several in the collection that were underfired and show a dark streak in the middle of the paste.

Promontory, Shoshone and Uintah Wares are all about the same as the Utah Lake Ware from the point of view of friability and firing.

Repairs

Several sherds were recovered from the site which have holes drilled in them. This was probably done in order to prevent a cracked pot from breaking completely. In Pueblo culture, a hole is drilled on both sides of the crack; a cord is then inserted through the two holes and tied together, thus keeping the pot from cracking further.

One sherd of the Promontory Ware was found by

Steward with a similar hole drilled in it.⁸ There is also one Shoshone sherd in the University of Utah Museum which has the same peculiarity. There have been no sherds recovered of the Uintah type of pottery similar to this.

These facts may not have any bearing on the matter at hand, because it is a common practice.

General Condition

As mentioned before, there were no whole pots recovered during the excavation. Moreover, the sherds found are in poor condition; they are weathered very badly. This is understandable in the light of the fact that the site is an open one, and the pottery has been exposed to the highly destructive weather conditions of Utah Valley, for a long time.

⁸ Steward, Op. cit., 1937, p. 48.

CHAPTER VII

MATERIAL CULTURE: STONEMWORK

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MATERIAL CULTURE: STONEWORK

The Stonework recovered at the site consists of arrow or dart points; larger points, which hereafter will be called spear points; scrapers; and knives. The points, scrapers and knives were manufactured wholly from flint, chert and quartzite.¹ There is apparently no correlation between the type of artifact and the material used in its manufacture. The workmanship in all of the specimens is fairly well advanced.

Arrow or Dart Points

There is a dearth of arrow or dart points in the collection. There were only six recovered; these fall into two classes: 1), a small, side-and-base notched point of good workmanship; and 2), a small triangular point with a concave base, also of very good workmanship. There are three of each type.

Of the first type, two are of chert (See appendix, Fig. 7, a and c); the other is of quartzite (see appendix, Fig. 7, b). All of them are worked on both sides, and evidence fine workmanship, as noted above.

Of the second type, two are of quartzite and

¹ There were also found a miscellany of flint, chert and quartzite chips and cores, which seem unworthy of description.

the other is of flint. However, the one of flint is unfinished. The two which are completed (See appendix, Fig. 7, d and e) are well made and also have been chipped on both sides.

There is no proof as to how these points were made. They could have been manufactured either by the "pressure-flaking" or the "percussion" methods. Because of their smallness and the size and evenness of the secondary chipping, it is probable that they were fashioned by the "pressure-flaking" method.

There were the only dart or arrow points found; but in the private collection of Mr. L. L. Bunnell, of Lakeview, Utah, there are about two or three hundred points, all of them recovered from around the Lake shore. All of his points are of the two types noted above.

This collection establishes two facts; first, that the points in the University collection are typical of the culture; and second, that the people occupying the site used either the bow and arrow or the atlatl as their main weapon. In this area it is more likely that it was the bow and arrow.

Type one, the side-and-base notched points, is also found in the Promontory Culture, except that the

Promontory points are made wholly of flint and obsidian.² The second type is rare in Promontory culture. Both types found at Utah Lake are common to the Shoshone Culture.³ Neither of these types is found in the Uintah culture.

Spear Points

There were three spear points found at the site. Two of them (See appendix, Fig. 7, h and i) are made of chert and the third is of quartzite (See appendix, Fig. 7, p). The two of flint are complete and show fine secondary chipping on both surfaces.

The specimen made of quartzite is a very odd one. It is of good workmanship, however, the point has been broken off; it has corner notches, and at right angles to the base are side notches. No points similar to this have yet been reported from this area.

The first two are characterized by an almost straight base; with convex sides which converge into a concave tip. These points have no counterpart in Promontory culture. There were some points which resemble them

² Steward, J. E., Ancient Caves of the Great Salt Lake Region, Smithsonian Institution, Bureau of American Ethnology Bulletin 116, 1937, pp. 15-16.

³ Steward, J. H., Pueblo Material Culture in Western Utah, University of New Mexico Bulletin, 1936, Vol. 1, No. 3, Fig. 11.

slightly found at Deadman Cave.⁴ However, they are not sufficiently alike to show definite relationship. There have been none similar to these reported from the Uintah and Shoshone cultures.

Knives and Scrapers

One large leaf-shaped knife was found. However, it is not complete (See appendix, Fig. 7, o). It is of quartzite and has been worked very carefully on both surfaces.

There were three side scrapers found which had been worked on both sides. Two are of flint (See appendix, Fig. 7, k and j), the other is of quartzite (See appendix, Fig. 7, g). All three show secondary chipping on both surfaces. There is one more scraper of this type, also made of quartzite. However, it is not well made and is much thicker than the others.

Another type in the collection is the end scraper (See appendix, Fig. 7, l and m). There are eleven of this class, and all are made of flint or chert. They are all chipped on only one side. Most of them are worked on the end only. However, there are several specimens which are chipped some distance up the side.

⁴ Smith, E. R., The Archaeology of Deadman Cave Utah, Bulletin of the University of Utah, Vol. 32, No. 4, Nov., 1941, pp. 19, 24.

There were eight specimens recovered which appear to be merely chips that have been used with very little if any secondary flaking. They are crude and vary greatly as to shape and size. In no case do they show secondary chipping on more than one surface. All were made from chips of flint. (See appendix, Fig. 7,q).

There are some scrapers in the Promontory culture comparable to those here described. They are designated by Steward as the "end, keeled or 'thumbnail' scraper of flint."⁵ Moreover, there are similar specimens which Steward classifies as "irregular flakes of flint and obsidian, used with and without retouching the edge."⁶ Other than these, there are no similarities between the knives and scrapers of the two cultures.

Up to the present time there is nothing definite known concerning the Shoshone and Uintah knives and scrapers; therefore no comparison can be made until further research has been done on those two cultures.

⁵ Steward, 1937, Op. cit., p. 70.

⁶ Ibid.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

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As stated in the Introduction, the problem analyzed in this study is three fold: (1), to identify the people whose material culture has been recovered; (2), to ascertain to what other peoples in the area they were culturally related; and (3), to determine the period of time they occupied the area.

Because of the numerous bison bones recovered at the site, and also the large number of arrow or dart points in the collection of Mr. L. L. Bunnell, it is logical to conclude that the artifacts recovered are those of a hunting culture. This is further corroborated by the fact that there were no houses or house-sites found at the time of the excavation. This may be due to the fact that the Utah Lake peoples did not remain in one place long enough to build anything more elaborate than brush-shelters, or some similar type of dwelling.

The fact that the Utah Lake peoples had a hunting culture is perhaps the only one that can be ascertained concerning their non-material culture. However, this fact does give a clue to many other aspects of their culture, which, as in other instances, are known to be associated with a hunting culture, e. g., nomadism, family or loose tribal organization, unwritten language, and some form of animism. This is purely hypothetical, with no substantial proof in the case of the Utah Lake peoples.

The fact that this culture lies within the northern

periphery of the cultures of the Southwest, would make it logical to assume that the Pueblo complex had influenced it in some way. As far as can be determined at the present writing however, this is highly improbable. In the first place, the pottery found at the Utah Lake Site has no slip; secondly, it has no painted design. Moreover, the arrow or dart points are not Puebloan. Then, too, there were no house-sites found as there were in most other Pueblo influenced cultures in this area. Moreover the Utah Lake Indians were nomadic while the pueblويد Indians were not.

These facts all sustain the hypothesis that the Utah Lake culture was not an outgrowth of the Pueblo cultures of the Southwest.

Having ruled out the possibility of a Southern origin, there are three possibilities remaining: (1), these Indians were influenced by or related to the Utes from the Uintah Basin; or (2), they were influenced by or related to the Promontory peoples who lived in the area of the Great Salt Lake; or (3), they were related to or influenced by the Shoshone peoples to the North and West.

To be sure the Utes occupied the Utah Lake area at the time of Father Escalante's arrival; however this does not necessarily mean that the Utes were responsible for the culture recovered at the time of the excavation. The only artifact that would seem to link the culture found at Utah Lake with

the Uintah Ute culture is the one Elk Tooth Pendant described. However, this is not very substantial evidence. The pottery, on the other hand, is very dissimilar, as are the arrow or dart points. At the present time there is very little known about the Uintah Ute culture, but in the light of the few facts at hand it is safe to conclude that there was very probably no relationship between the two cultures.

What probably happened was that the Utah Lake Peoples, whose culture we have recovered, were extinct some time before Father Escalante arrived.

By the process of elimination therefore, there are only two cultures to which the Utah Lake culture could be related; they are (1), the Promontory, and (2), the Shoshone.

Promontory is primarily a cave culture; these Indians did not build any permanent dwellings. Shoshone house-types also are merely temporary dwellings of no permanence.¹ Moreover, both the Promontory and Shoshone cultures are hunting and gathering cultures.

As mentioned in Chapter V on Bone Work, the awls, gaming bones, and the bone bead recovered at Utah Lake are in many respects similar to those from the Promontory Point caves. Granted that they are not exact facsimiles, they are nevertheless

¹ Steward, J. H., Culture Element Distribution: XIII Nevada Shoshone, Anthropological Records, Vol. 4, No. 2, University of California Press, Berkeley, California, 1941, pp. 232-233.

sufficiently alike to show a possible relationship between the two cultures.

Since there is very little known concerning bone work among the Shoshone tribes, no relationship can be proved or disproved with the bone work of the Utah Lake Indians.

The following table has been compiled to compare the Utah Lake Pottery with that of the Promontory, Shoshone and Uintah Ute Cultures.

Paste	Utah Lake	Shoshone	Promontory	Ute
Character				
fine				*
medium	*	*	*	*
coarse				
Color				
brown	*	*		*
grey	*	*	*	*
black			*	
Temper				
Mineral				
Quartz	*	*		
Biotite Mica	*	*		
Feldspar	*	*		
Calcite			*	*
Texture				
fine				
medium	*		*	*
coarse	*	*	*	
Rim Shape				
straight				
flared	*		*	
recurved	*		*	
thickened	*		*	
flattened	*		*	
Surface treatment				
interior				
rough				
smoothed	*	*	*	*
striated	*	*	*	
exterior				
rough				
smoothed	*	*	*	*
striated		*	*	
Design				
Body				
Fingernail	*	*	*	
punched				
Sharp stick	*		*	
punched				
incised lines			*	
applique			*	
Rim				
Fingernail	*	*	*	
punched				
Sharp stick	*		*	
punched				
incised lines	*		*	
es	*		*	

From the foregoing table it is seen that Utah Lake,

Promontory and Shoshone paste textures are very similar, - Shoshone being slightly more coarse. In paste color the Utah Lake Ware resembles the Shoshone more closely than it does the Promontory; Utah Lake Ware being grey or grey-brown; Shoshone being grey, brown or reddish-brown, while Promontory is generally black in color.

It is also apparent from the table that in texture and amount of temper, the Utah Lake Ware resembles the Promontory pottery more closely; but in type of temper-mineral it resembles the Shoshone.

It will be remembered that a complete piece of Utah Lake or Promontory pottery has never yet been found. However, as far as can be determined, the Utah Lake Ware resembles the Promontory Ware in regard to shape. The Utah Lake rim-shapes resemble those of Promontory, rather than those of Shoshone. Moreover, most of the body sherds recovered, appear to have been a part of large olla shaped vessels, similar to those ascribed to the Promontory culture. However, there was one bottom and several wall sherds recovered which could possibly have once been a vessel having the typical Shoshone shape of an inverted truncated cone.

As mentioned before, none of these wares has any semblance of a painted design. However, they all bear some sort of incised or punched decoration on the walls and rims. Promontory pottery evidences an applique or "coffee-bean" decoration which is absent in both the Utah Lake and Shoshone Wares. Shoshone pottery

designs do not have the variety displayed in both the Utah Lake and Promontory Wares.

As will be seen in the foregoing table, out of a possible twenty traits embodied in Utah Lake Ware, there are sixteen similar in Promontory Ware, and thirteen similar in Shoshone Ware; while there are only five similar in the Uintah Ute Ware.

The small side-and-base notched arrow or dart point, and the triangular point with the concave base, both from the Utah Lake culture, are common in the Shoshone cultures of this area. The side-and-base notched point has a counterpart in the Promontory culture, but there are no triangular points of the type found at Utah Lake present in the Promontory culture.

The knives and scrapers found at Utah Lake are similar to those from Promontory; there is sufficient resemblance between the two, to say that there could have been a relationship between them.

As mentioned above there has been nothing published to date concerning this type of artifact in the Shoshone culture.

It now appears from the foregoing facts and comparisons, that Utah Lake culture is one which has traits similar to both the Promontory and the Shoshone cultures. The problem resolves itself thus: is it possible that geographically and culturally the Utah Lake culture is a composite of both?

According to Steward, traces of the Promontory culture have been found in a mound at Provo, Utah, as well as in

essentially all of the caves around the Great Salt Lake, and possibly in the region of the Uintah Basin.²

Therefore, it would be possible for the Utah Lake culture to bear some relationship to the Promontory culture, because it falls within that geographical range.

The complete geographical range of the Shoshone culture is not precisely known at the present time. However, Shoshone pottery has been found on the Snake River in Owyhee County, Idaho.³ It has also been found near White Horse Pass, Nevada; Logan, Utah; and at the Mouth of Weber Canyon, Utah.⁴ This is an extremely wide range. It is plausible to believe that at some time the influence of the Shoshone culture might have reached as far south as Utah Lake.

Concerning the relationship between the Promontory and the Shoshone culture, Steward contends:

"The relationship of the Promontory culture to recent Indian cultures is impossible to establish. The Promontory culture existed in a region recently occupied by the Shoshoni, but its correspondence to Shoshoni culture is far from complete. In contrast to the Shoshoni, who were essentially seed gatherers using a highly developed complex of twined basketry, the Promontory people seem to have been primarily

² Steward, J. H., Ancient Caves of the Great Salt Lake Region, Smithsonian Institution, Bureau of American Ethnology, Bulletin 116, 1937, p. 122.

³ Schellbach, L., Mr. Schellbach's Researches in Idaho, Museum of the American Indian, Heye Foundation, Indian Notes, Vol. 7, No. 1, pp. 123-125

⁴ Malouf, C., "Thoughts on Utah Archaeology," American Antiquity, Vol. 9, No. 3, Jan., 1944, p. 320.

hunters, ----- . The relationship of Promontory culture to modern cultures is further confused by the presence of certain southwestern as well as far northern traits. The following comparisons will serve to demonstrate the farflung connections of the Promontory culture.

"Traits of probable northern origin are: the style of moccasins and mittens (far north; Lemhi Shoshoni made such mittens); the sinew back bow (also found throughout the Great Basin); the type of hand game bone (Plains); the end scraper (especially Plains but widely spread and also found in earlier deposits in the Salt Lake region); possibly Beaver-Teeth dice (Puget Sound).

"Traits of probable ultimate Southern origin are: pottery (southwestern; it is possible, however, that this came from the plains to the Promontory culture); the tubular pipe; cedar-bark rings, which are probably pot rests (Pueblo); possibly wooden tubes from the hidden-ball game (Pueblo); bird-bone beads (Basket Maker and Pueblo); pottery disks; possibly cane dice.⁵

The non-Shoshonean characteristics of the Promontory culture are: the single rod or rod-and-bundle coiled basketry; the highly distinctive black Promontory pottery; the four-piece moccasin; mittens; etched stones; and juniper-bark rings.⁶ There are also several features which would be apparent if the Promontory culture were Shoshonean. These characteristics are not present: metates; bird or rabbit nets; twined basketry; ground hardwood arrows; some trace of the numerous Shoshone dice games.⁷

As this study clearly shows, there was very little of the total culture recovered at Utah Lake. This is due to the fact that the site is an open one, and the material culture was

⁵ Steward, Op. cit., pp. 83-84

⁶ Ibid., p. 86

⁷ Ibid., p. 86

thus exposed to the rigors of climatic conditions and to the rising of the Lake. However, it seems logical at this time to accept the hypothesis that the Utah Lake culture is an out-growth of the Promontory-Shoshone complex; that is to say, it contains traits which are similar to both the Promontory and Shoshone cultures. This hypothesis, like any other, is subject to modification or rejection if and when more definite data are obtained regarding the peoples which once inhabited the Utah Lake area.

It is difficult at the present time to date the Utah Lake culture, because the stratigraphy provided no evidence to correlate it with other known cultures in the region. Because of its similarity to Promontory and Shoshone cultures, and the further fact that it is already known that the Promontory culture preceded the Shoshone culture in this area,⁸ it can be said that the Utah Lake culture existed contemporaneously with both the Promontory and Shoshone cultures. However, it is not known when the Promontory peoples inhabited this area; moreover, it is not known when the Shoshone peoples came into the area.

From history it is learned that the Utah Lake culture must be pre-escalante, that is, older than 1776. From geology it is learned that the culture cannot be more than 1500 to 2000 years old. This limits very definitely the space in time in which the Utah Lake culture could have existed.

A highly conjectural guess as to the age of the Utah Lake culture is five hundred years. It must be remembered, however, that this is a guess and is subject to modification.

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APPENDIX

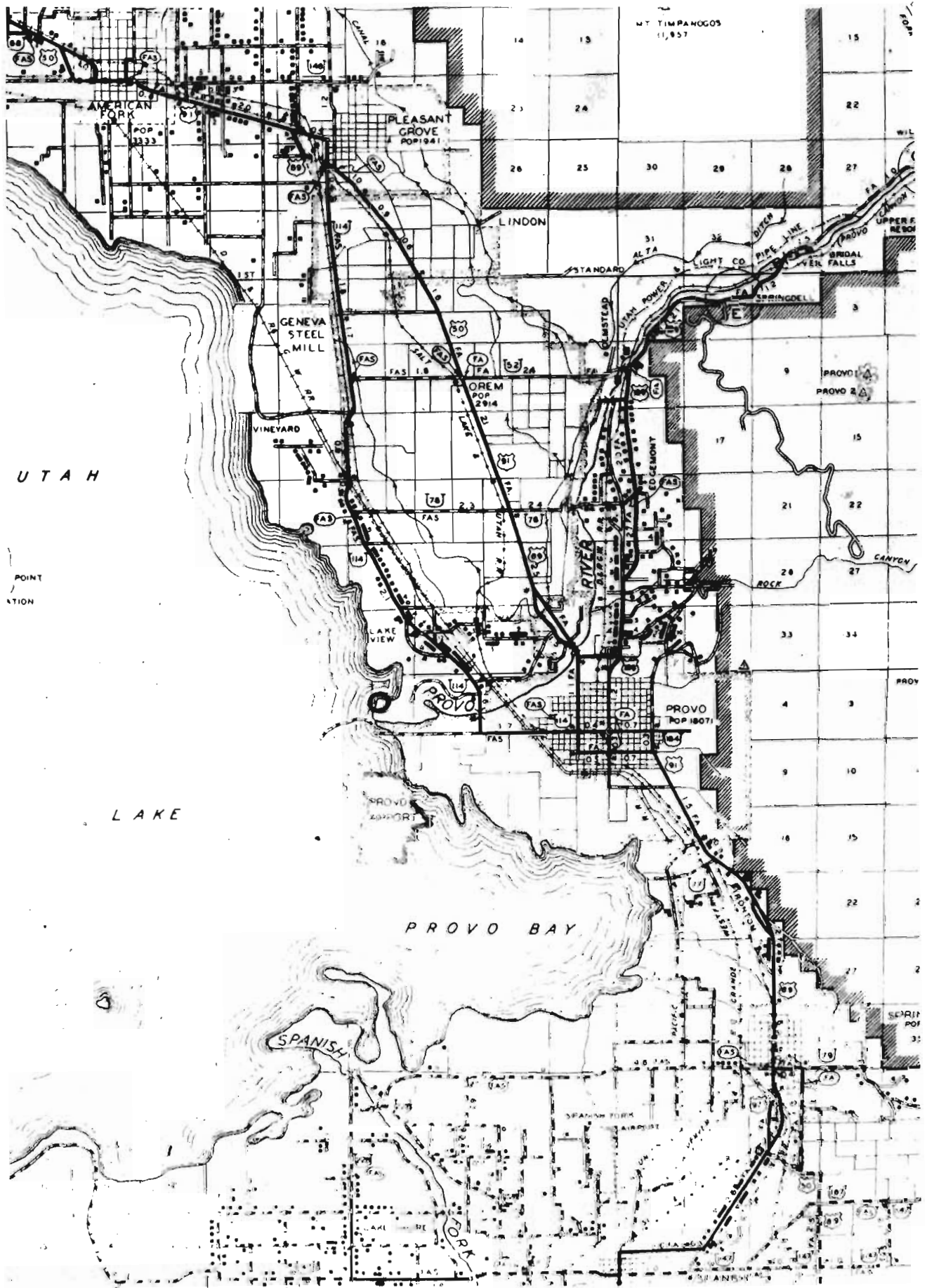


Figure 1 Map

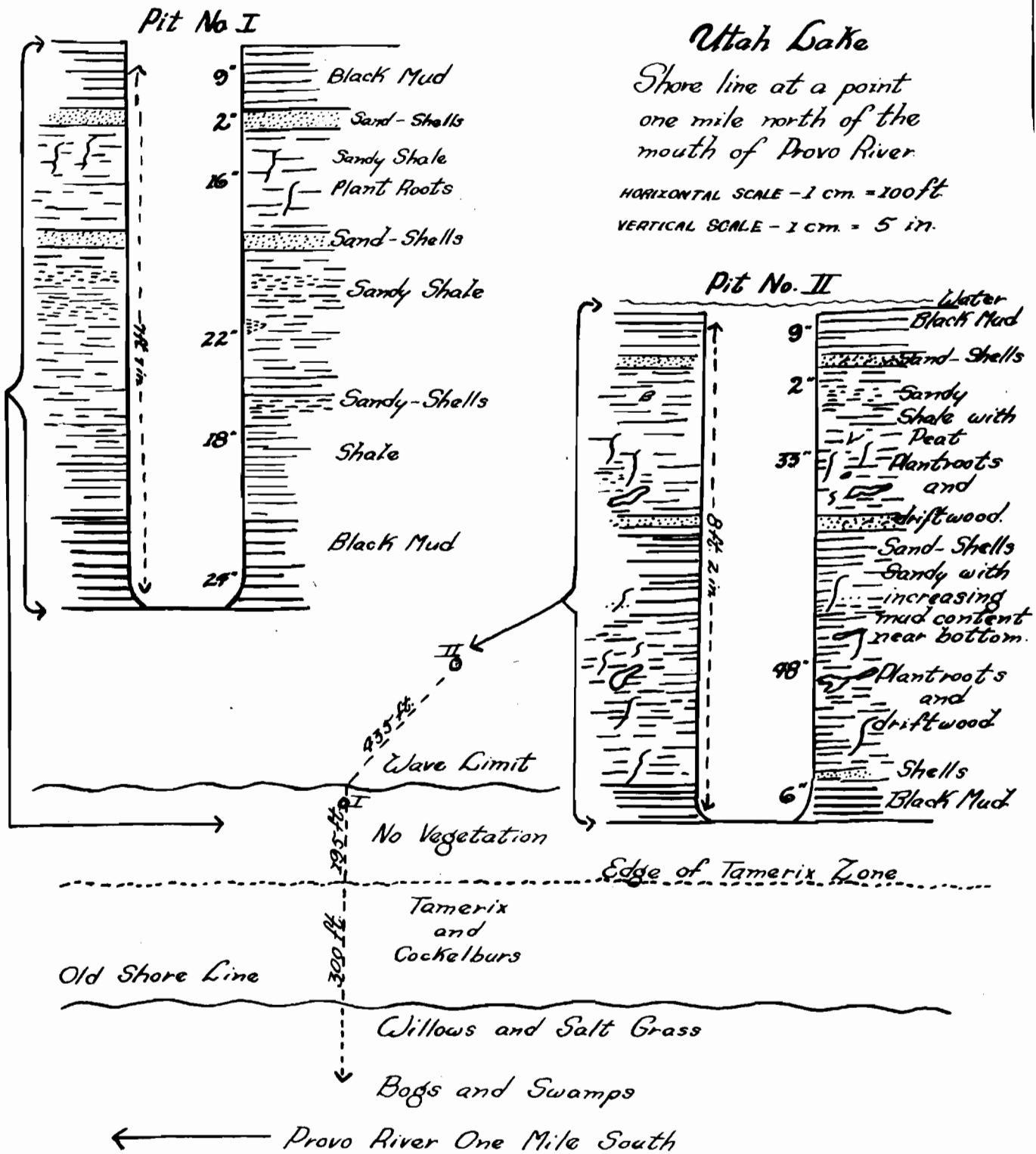


Figure 2
(After Hansen)

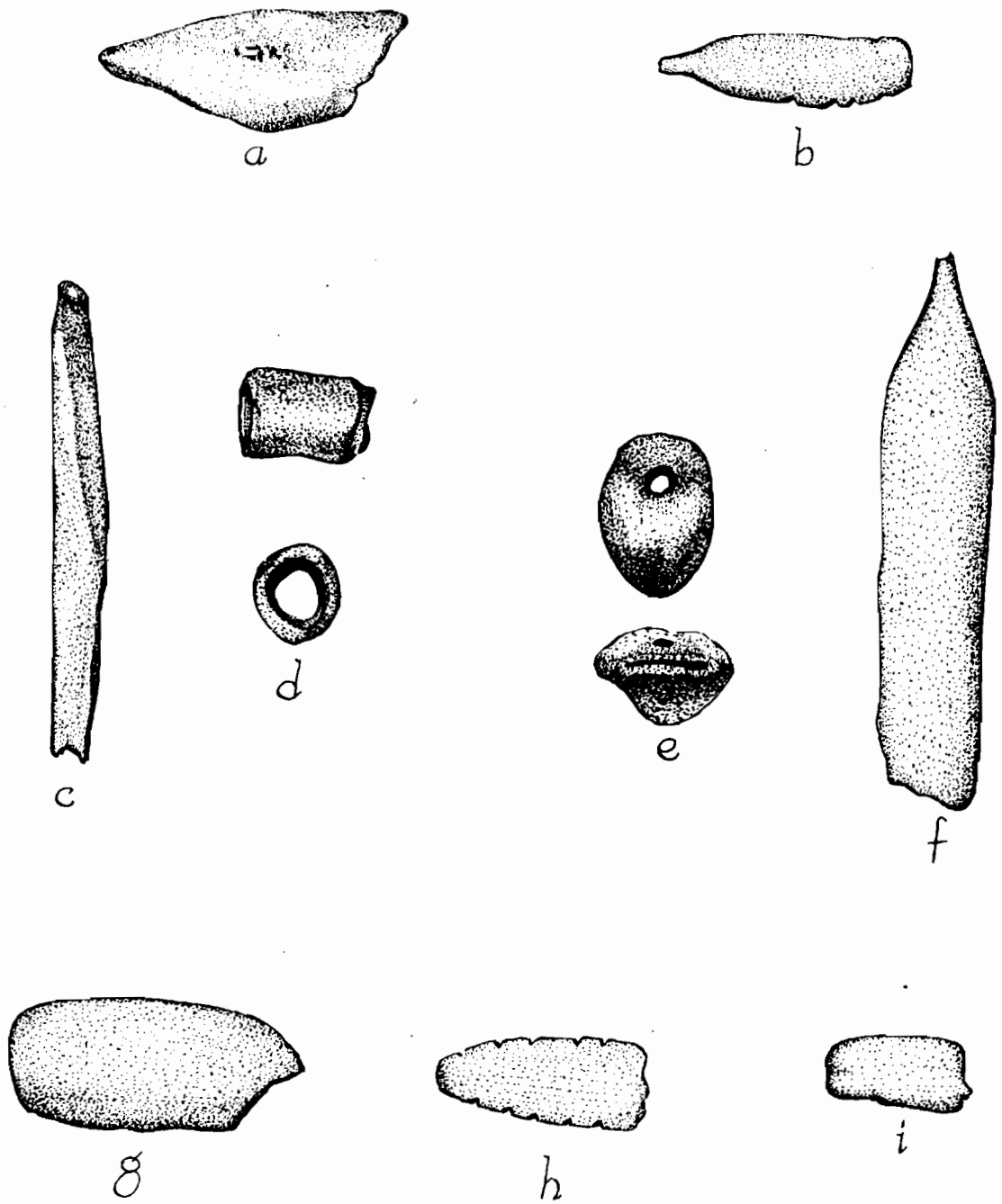
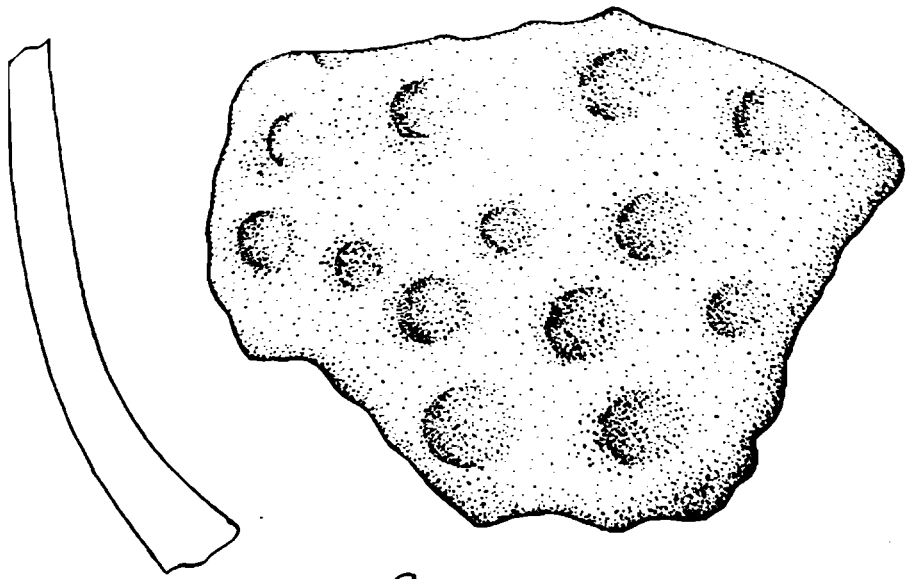
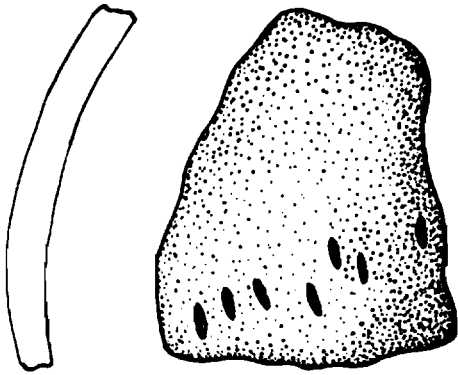


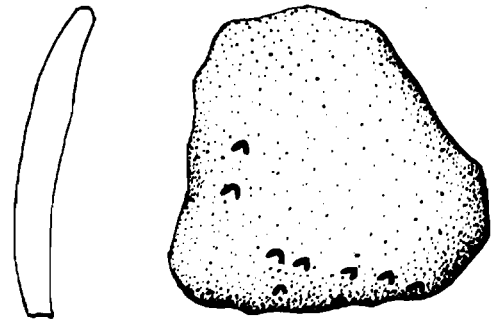
Figure 3
Bone Work



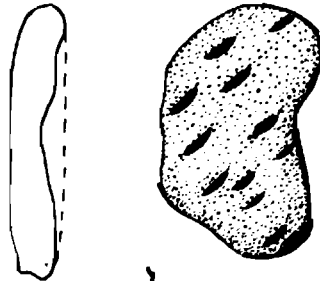
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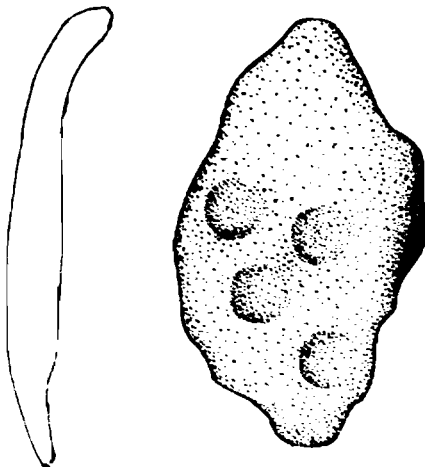
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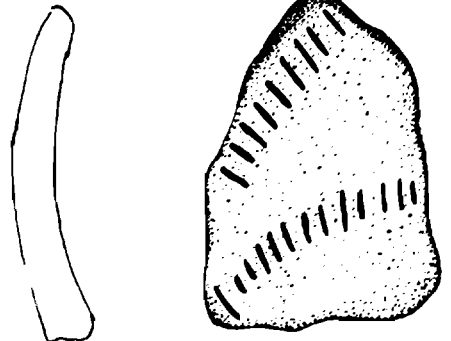
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Figure 4
Decorated Wall Sherds

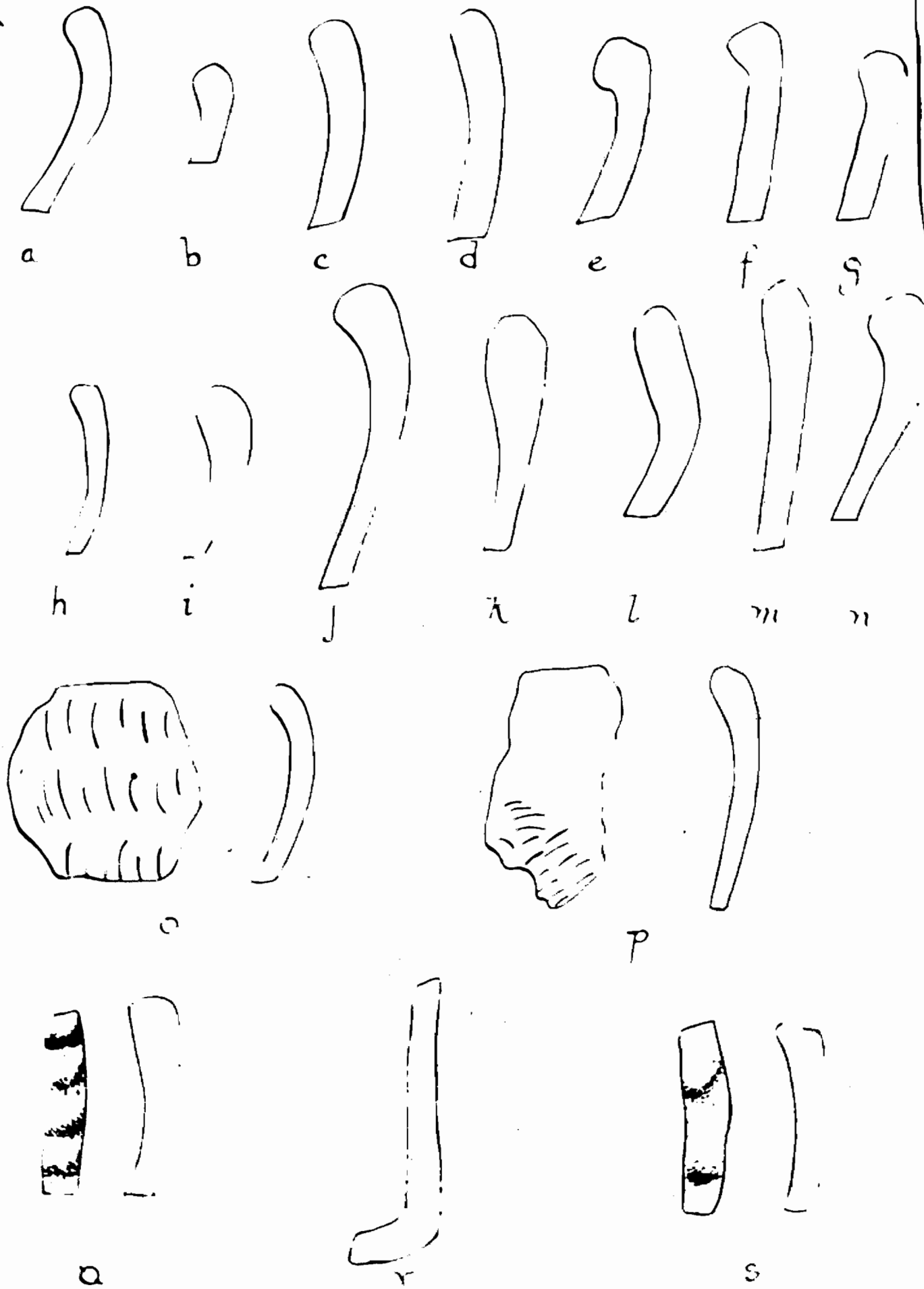


Figure 5 Rim Profiles

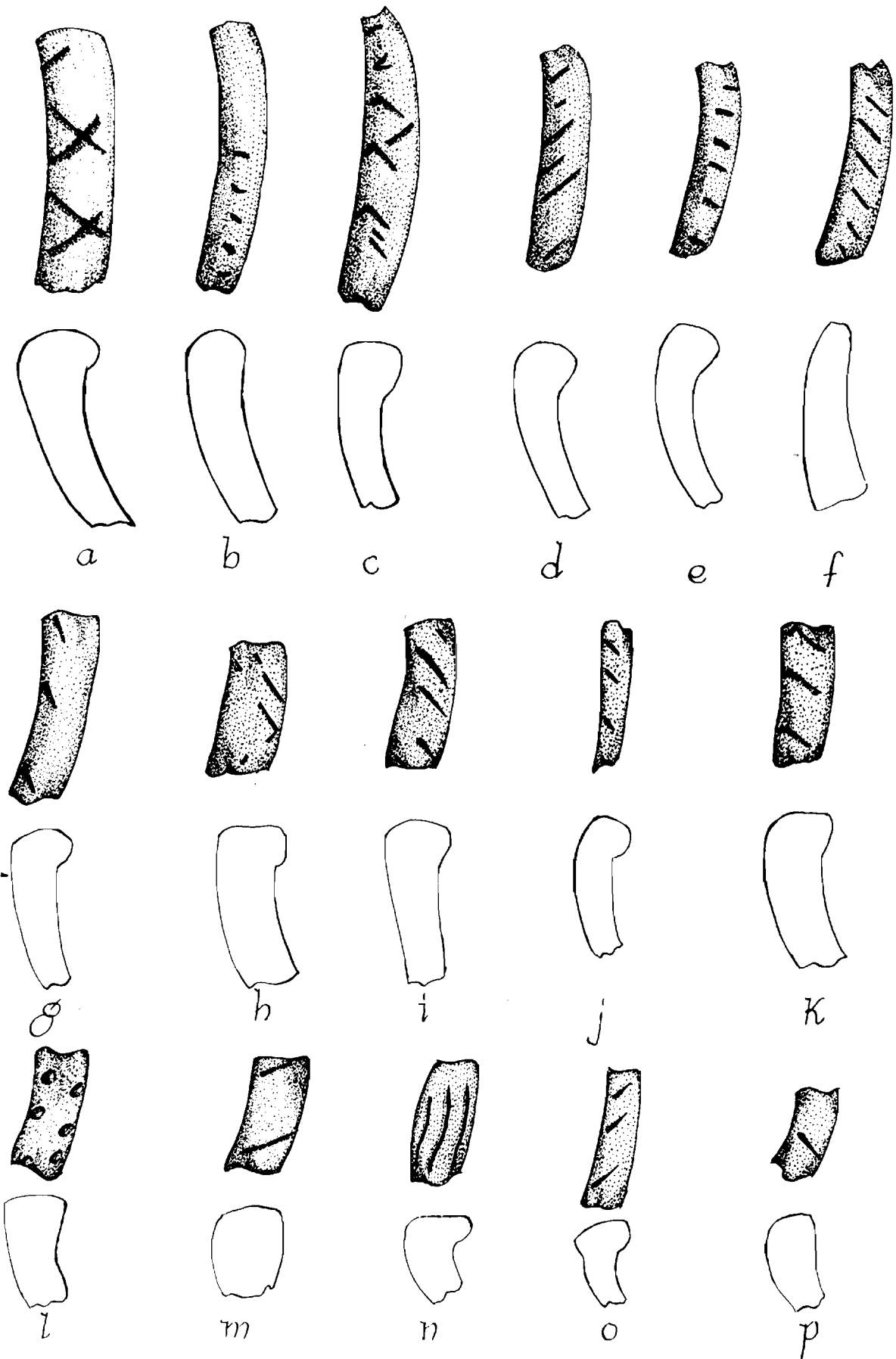


Figure 6
Decorated Rim Sherds

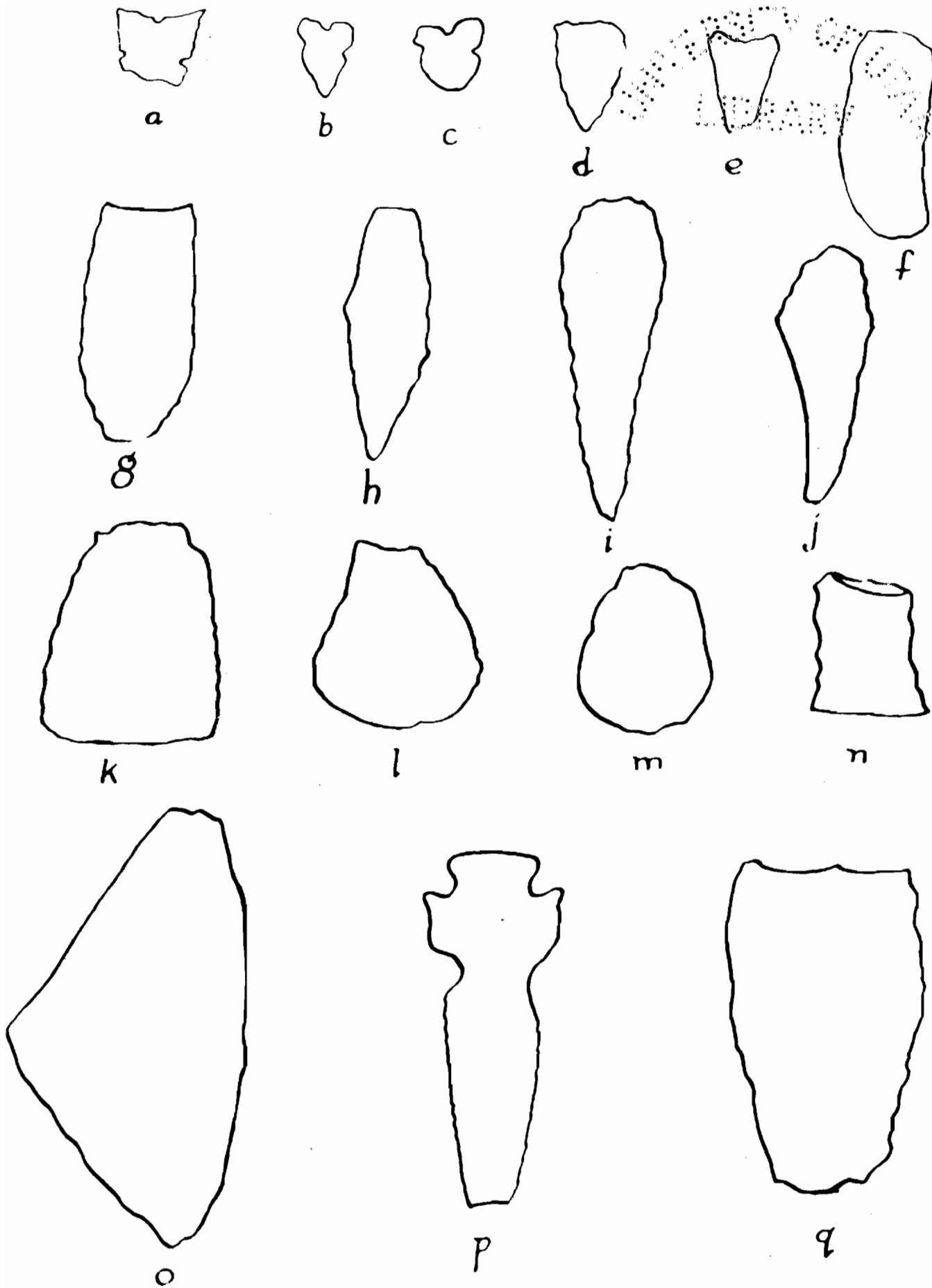


Figure 7 Stone Work