BY A GREAT MEADOW AND A MOUNTAIN LAKE, ARCHAEOLOGICAL INVESTIGATIONS AT THE SBR-935 SITE NEAR BALDWIN LAKE, IN THE BIG BEAR CITY AREA, SAN BERNARDINO COUNTY

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ABSTRACT

At this ethnographically recorded *Yuhavetum* settlement, by a great meadow and a mountain lake, the archaeological materials left behind from each summer's reoccupations would have been covered over by winter snows. During major spring melts the lake would have risen, inundated the area, and overflowed across this site location. Archaeological material would have been covered with silts and buried.

INTRODUCTION

This summary report has been prepared at the request of the Coordinator for the State's Archaeological Information Center covering San Bernardino County. The Center serves as the regional office of the California Archaeological Inventory operated on behalf of the State's Office of Historic Preservation. A full report covering the SBR-935 archaeological site investigation from 1988-1989 never was prepared, and there were concerns about maintaining the integrity of the regional inventory records, as stipulated in State regulations. Thus, the first goal of this report is to provide a record of this undertaking. Several problems are detailed that preclude the production of a more comprehensive analysis, but this overview provides an administrative and scientific report for those concerned with the archaeological heritage of the SBR-935 site.

A second goal of this report is to document a case of an archaeological site which is unusual because it was naturally buried in deep soil deposits and thus obscured from normal view. At least in retrospect, because the site was hidden, the investigation was unexpectedly exciting scientifically (but unusually arduous administratively). The challenge is to understand why this prehistoric site became buried and to appreciate how the archaeological data are linked with the local soil accumulation processes. These issues were not explicitly mentioned in the original papers and records on the project. However, such thoughts undoubtedly were part of the considerations in pursuing these investigations. These scientific issues provide the critical theme in organizing this report.

A third goal for this report is to link the archaeological data with the patterns of the native ethnography for the region. The archaeological materials recovered and their provenience demonstrate the extent to which the patterns historically recorded were practiced in prehistoric times. The locally recorded patterns of seasonally specific resource exploitation activities and corresponding seasonal settlements provide a model for understanding the archaeological site data.

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The files at hand to document this archaeology investigation and the land development project to which they were linked are challenging to read and reconstruct. The files of original notes, papers, catalog, and photos for this project have been maintained at The Keith Companies. The archaeological specimens were transferred elsewhere. Notwithstanding these constraints, with the three goals achieved in this summary report, the importance of the SBR-935 site is realized.

PROJECT BACKGROUND

In the fall of 1988, as part of a land development project, the first of several archaeological studies at the SBR-935 site was initiated. The land development project was the construction of fluoride blending facilities, a part of the regional water system of the Big Bear City Community Services District. The anticipated facilities involved the construction of an above-ground water reservoir with an adjacent pump (booster) station. A plan shows the reservoir area was approximately 180 feet in diameter, with a small booster station along the southwestern side. Thus, it appears the construction project covered approximately one acre.

A contract was established with an independent archaeological consultant for an initial archaeological survey and exploration of the project area. The State's archaeological Information Center was contacted which reported that the project location previously had been recorded as the SBR-935 site, a location possibly corresponding to the prehistoric *Yuhavetum* settlement known as *Maktsuk* (or, alternatively, *Kaajavpeat*). The boundaries of this site were unknown, but it was suggested that considerable soil deposits had been built up locally and probably had covered over portions of the archaeological site. After a surface inspection of the project area found no artifacts, one subsurface trench was excavated with a backhoe. This archaeological test trench revealed a complete metate and other archaeological materials buried in the soils to a depth of four feet. Further archaeological investigations were recommended. A letter was sent to the State Native American Heritage commission, and they recommended that contact be initiated with the nearby members of the San Manuel Reservation, the most direct descents of the *Yuhavetum*.

The following spring The Keith Companies executed a contract with the Big Bear City Community Services District to conduct an archaeological data recovery program. A metric mapping grid was established across the project area and tied to various control points. Seven 2x2 meter sampling units were carefully hand excavated in 20 cm levels (modest extensions were excavated onto two different sampling units, in both cases to recover large metates partially exposed in the sidewalls). The excavated soils from five units were screened over 1/8" mesh hardware cloth to recover a controlled sampling of the small archaeological resources present. Two units were processed with 1/4" mesh screens. Stratigraphic profile drawings and photographs were prepared for key units and the archaeological features uncovered.

At the finale of these archaeological excavations, the two to four feet of soil to be removed for the construction project was carefully graded off. These operations were monitored for archaeological resources. Each discovery was plotted, mapped, and collected. Numerous metates were uncovered. Archaeological materials were present throughout the construction area, and no boundaries for the archaeological site were recognized.

A laboratory program to wash and catalog the recovered archaeological materials followed. The processed materials were all sorted to class. the metates were measured, but no further special analyses were undertaken. A computer based catalog was organized and printed. At this juncture the contracted funding for the archaeological project was exhausted, and the study went no further. Other anticipated analyses, along with the preparation of a project report and interpretation of the archaeological site, simply were curtailed.

The following year the people at San Manuel

Reservation were invited and arranged to pick up the collection and its catalog. They transferred the entire collection in the early summer of 1990 to their facilities at Highland, California. The archaeological personnel at The Keith Companies changed over the years, but the firm maintained the project files. The original records of SBR-935 site investigation had been stored away for about five years when the author became the firm's principal Archaeologist.

THE PROJECT LOCATION

The location for the construction of the reservoir and adjunct facilities was a tract in the northeastern portion of the community of Big Bear City, east of Paradise Lane and south of North Shore Drive. On the U.S.G.S. Lucerne Valley quad map, 15 minute edition of 1947, the project area is near the middle of the eastern side of Section 12, in Township 2 North, Range 1 East, San Bernardino Base Meridian (Figure 1).

The project property had been cleared, leveled, and developed in years past. A large equipment maintenance building, about 120 x 60 feet in size, existed on the south side of the reservoir site. Other structures existed nearby, including one or more water wells. The proposed reservoir location had been used previously as a corral, and prior structures probably had been present. The investigations, therefore, encountered some glass, trash, and other recent materials mixed into the soils.

SITE GEOGRAPHY AND SEASONALITY

This project area was located near the western shoreline of Baldwin Lake, which also is the area of the ancient outflow channels for the lake. This natural lake occupies the eastern end of the 11-mile long Bear Valley. At the distant western end of this highland valley the historic 1880s dam was built which formed the modern Big Bear Lake, a water system reservoir, filling the western half of the valley. Big Bear City has been developed at the eastern end of this enlarged lake basin, between Big Bear Lake and Baldwin Lake.

The modern community of Big Bear City is situated on a slight rise, which is actually a wide alluvial fan from a major canyon drainage that has infilled a middle portion of the valley bottom. This alluvial fan isolates and creates a natural dam forming Baldwin Lake within the eastern end of the valley basin. At times of excessive snow melt and run off, Baldwin Lake would fill and overflow across this low fan, and then drain into the western portion of the valley basin where Big Bear Lake was created. In prehistoric times this highland valley basin was a series of lakes and meadow wetlands.

The entire basin of Bear Valley is surrounded by high, rugged mountains and is subject to colluvial and alluvial soil accumulation processes. The alluvial fan separating Baldwin Lake from the remainder of the basin is a major, ancient feature. This alluvial fan has formed from the mouth of a steep canyon with an unusually extensive (six-mile long) watershed. This fan has infilled the central portion the basin. However, the configuration of this fan deposit apparently has been truncated and somewhat leveled by the drainage outflows across the fan from the eastern portion of the Bear Valley basin. The drainage basin for the eastern portion of the valley, creating Baldwin Lake, is also very extensive. The elevations near the crest of the alluvial fan are about 6775 feet, and along the ancient Baldwin Lake outflow channels the elevations are only about 40 feet lower. In years of deep snow packs, the spring melts presumably would inundate the eastern basin, recharge Baldwin Lake to its limit, and ultimately cause the lake to overflow across the fan. It appears from the archaeology investigations that the spring inundations and overflows resulted in the slow deposition of sands and silts over the fan which buried the archaeological materials left there from previous seasons of occupation.

The entire high mountain basin typically would be snow-covered and inhospitable through-

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out the winter months. The mountain peaks that surround Bear Valley range in elevation from 7500 to nearly 10,000 feet. The valley bottom lands would be cold and snowy during winter and would be inundated wetlands during major spring melts. On the other hand, this highland basin would be cool and pleasant for summer and early fall occupations. In these two seasons, the local plants also would be most verdant, and aboriginal foods sources would be most abundant.

NATIVE AMERICAN ETHNOGRAPHY AND HISTORY

The Baldwin Lake area in aboriginal times was occupied by the *Yuhavetum*. Numerous details of their native life-ways have been recorded, and certain aspects of the ethnographic patterns are useful for interpreting the archaeology. Although the aboriginal patterns had been disrupted for several generations, some native *Yuhavetum* were seasonally revisiting the Baldwin Lake area to procure foods again in the late nineteenth and early twentieth centuries. They also were toured back (particularly by the scientist John P. Harrington in 1918) to point out and record ethnographic information. Most of this native knowledge came from Santos Manuel; his son, Tomas Manuel; and Tom Manuel's wife, Jesusa Manuel (Bean and Vane 1981; Laird 1975: 104-107). Santos Manuel (who was born about 1839 and died in 1919), along with some other Native Americans, had established a new settlement in the 1870s at the base of the mountains near Highland, California, and worked as wage laborers on nearby local ranches. Their descendants are members of the San Manuel Band living on the reservation formed there in 1891 (Beattie 1953; Chace 1966; Spiller 1979).

The *Yuhavetum* or 'people of the pine place' had their summer season settlements in the upland basin of Bear Valley with its abundant pine trees. They spent their summers in the eastern portion of the valley at Baldwin Lake (at least after the enlarged reservoir at Big Bear Lake was created). The pinyon nuts from the pines there were harvested as a major summer food source, as were the ducks and waterfowl attracted to the lake. Tubers and bulbs, *pamaham*, growing in the wetlands also were important local foods (Bean and Vane 1981).

The area at the western end of Baldwin Lake was called *Maktsuk* (or *Kajavpeat*). This place name referred to the location of a natural hot spring (Pan Hot Springs, just northwest of the project area). In the aboriginal creation mythology, one of the first two brother creators of the world was cared for by people at *Maktsuk* before he was moved to another settlement near a spring on the southern shore of Baldwin Lake. Native names were recorded for the locations of several landmarks or settlements around the shoreline of Baldwin Lake. The great meadow and wetlands that extended from *Maktsuk* westward was called *Tamant*, after a rocky knoll at the edge of the meadow near Big Bear Lake (Bean and Vane 1981).

Knowledge about the aboriginal *Yuhavetum* settlements in other seasons is less certain. After spending the summer around Bear Valley, the *Yuhavetum* probably harvested acorns in oak groves at lower elevations in the mountains, apparently along the Santa Ana River drainage. Their winter settlements in prehistoric times presumably were along the river near the base of the mountain in the San Bernardino Valley. However, even long before Santos Manuel's time, these lower elevations settlements had been historically abandoned to Spanish, Mexican, and American settlers.

The aboriginal settlement patterns in the San Bernardino Valley and the mountains to the north had been severely disrupted by Spanish and Mexican colonizers and later by American settlers. It appears that the aboriginal groups had retreated from their traditional settlements in these areas during the decades of the 1810s through the 1860s, when hostilities often raged against the local Native Americans. Further disruptions of the aboriginal settlement patterns occurred with the discovery of gold in the mountains with the resulting influx of prospectors and miners in the 1860s, followed by the building of the dam in the

1880s which created the reservoir of Big Bear Lake (Beattie 1951; Beattie and Beattie 1951; Beattie 1953; Mills 1917:158-166; San Bernardino County Museum Association 1958; Spiller 1979). Thus, aboriginal *Yuhavetum* settlement patterns had been disrupted by the 1810s, and the only fragmentary knowledge about such settlements could be recorded a century later.

THE SITE SOIL DEPOSITS

Archaeological materials were encountered throughout the entire extent of the project area and, apparently, throughout the entire depth of the investigations undertaken. Most of the archaeological materials actually were recovered from the upper 100 centimeters of the excavations. However, wherever excavations were carried to greater depths, additional archaeological materials were encountered. The notes do not indicate that any soil stratum ever was encountered without archaeological materials. The one sampling excavation that was excavated to a depth of 200 centimeters yielded small quantities of archaeological materials into the lowest levels; the last several levels of this unit actually had penetrated the water table. There may have been archaeological materials at even greater depths in the soils. With the investitive techniques available it was not practical to determine the maximum depth to which archaeological materials occurred in the local soil deposits.

When the subsequent grading of the reservoir construction was monitored for archaeological materials, discoveries were made throughout the area. Approximately two to four feet of soil was graded in the reservoir area. Numerous large stone metates were uncovered and, in almost all cases, were mapped at two to four feet below the modern ground surface. Thus, the heavy stone metates tended to be found somewhat more deeply buried than the smaller archaeological materials recovered from the hand-excavated sampling units. The water table was not encountered during the grading operations.

The soils encountered, generally, were uniform fine clayey-sandy loams. The soils all were gray to dark gray in color (10 YR 4/1 to 6/1). It was noted that grain size tended to increase slightly with depth. Some fine gravel was encountered in the screened soils, but lenses of gravel are not evident in the photographs or wall profile drawings of the excavated units. The profile drawings do not detail rodent burrows, although a very few infilled burrows seem evident in photographs. Thus it appears that the deposit may have been subject to minor bioturbation processes, but not enough to churn even a representation of the smaller archaeological materials back onto the ground surface. However, recent historic items, such as fragments of glass, had become mixed into the soil well beneath the surface. There also was a stratum described as a plow zone across the top ten centimeters of the area, probably a disrupted root zone containing darker humus.

The clayey-sandy loam soils extended to a depth of two meters with only two internal stratification bedding lines. Two visible bedding lines ran nearly horizontally through the deposit; one was about 60 to 80 centimeters below the surface and the other was about 90 to 120 centimeters below the surface. It is challenging to interpret the slight inclines and dips recorded in the bedding lines revealed in the excavated units. The strata may have sloped downward slightly toward the east, downward into the Baldwin Lake basin. At a depth of 200 centimeters a distinct stratum of tan colored clay was encountered in the single unit investigated to that depth. In retrospect, it would seem that the fine clayey-sandy loam soils and the tan clay stratum may have formed within the still shallows or slow moving waters at the edge of the lake.

THE ARCHAEOLOGICAL MATERIALS

The investigations recovered a diverse sample of archaeological materials. These materials, as they were sorted and classified in the prepared catalog, are presented in the accompanying Tables 1-8. The hand excavated units yielded 10,945 specimens and 219 more were recovered in the

TABLE 1: Artifacts Recovered by Unit from Hand Excavated Units at SBR-935

		UNIT							
CLASS	OBJECT	1	2	3	4	8	9	10	TOTAL
Ceramic	Brownware	1	.	5	.	.	.	.	6
	Buffware	.	.	.	1	.	.	.	1
	SUB-TOTAL	1	.	5	1	.	.	.	7
Chipped Stone	Biface	3	2	2	1	1	1	.	10
	Chopper	1	1	.	1	.	.	.	3
	Chunk	2	.	.	.	.	.	.	2
	Core	4	.	.	1	1	1	1	8
	Core Fragment	13	5	7	4	3	5	5	42
	Core Scraper	.	.	.	.	.	.	1	1
	Prismatic Blade	.	1	.	.	.	.	.	1
	Projectile Point	5	6	2	3	1	.	3	20
	Retouched Flake Scraper	.	1	.	.	.	.	.	1
	Spherical Hammer	.	1	.	.	.	.	.	1
	Tool Fragment	.	.	.	.	1	.	.	1
	Utilized Flake Scraper	3	2	4	2	4	1	1	17
	Not Identified	.	.	.	.	.	.	1	1
	SUB-TOTAL	31	19	15	12	11	8	12	108
Groundstone	Angular Hammer	1	1	.	1	.	1	.	4
	Basin Metate	.	1	2	1	4	.	.	8
	Slab Metate	6	2	1	3	1	2	.	15
	Mano	1	2	.	2	2	1	2	10
	Not Identified	.	2	1	1	1	.	.	5
	SUB-TOTAL	8	8	4	8	8	4	2	42
Fire Affected Rock	Not Identified	75	39	125	70	10	99	10	428
Misc. Lithic	Quartz Crystal	12	6	9	9	2	5	7	50
TOTAL		127	72	158	100	31	116	31	635

TABLE 2: Artifacts Recovered by Level from Hand Excavated Units at SBR-935

		LEVEL								
CLASS	OBJECT	0-20	20-40	40-60	60-80	80-100	100-120	120-140	140-160	TOTAL
Ceramic	Brownware	.	2	2	2	.	.	.	.	6
	Buffware	1	.	.	.	.	.	.	.	1
	SUB-TOTAL	1	2	2	2	.	.	.	.	7
Chipped Stone	Biface	3	2	2	1	.	1	1	.	10
	Chopper	.	.	.	1	2	.	.	.	3
	Chunk	1	1	.	.	.	.	.	.	2
	Core	.	.	.	4	3	1	.	.	8
	Core Fragment	6	7	5	10	10	3	.	1	42
	Core Scraper	.	.	1	.	.	.	.	.	1
	Prismatic Blade	.	.	.	.	1	.	.	.	1
	Projectile Point	6	3	5	3	1	1	1	.	20
	Retouched Flake Scraper	1	.	.	.	.	.	.	.	1
	Spherical Hammer	.	.	.	.	1	.	.	.	1
	Tool Fragment	.	.	.	.	1	.	.	.	1
	Utilized Flake Scraper	5	4	2	3	1	1	1	.	17
	Not Identified	.	.	.	1	.	.	.	.	1
	SUB-TOTAL	22	17	15	23	20	7	3	1	108
Groundstone	Angular Hammer	.	.	.	.	3	1	.	.	4
	Basin Metate	.	.	.	5	3	.	.	.	8
	Slab Metate	.	.	.	7	7	1	.	.	15
	Mano	.	.	1	5	3	1	.	.	10
	Not Identified	.	.	.	1	4	.	.	.	5
	SUB-TOTAL	.	.	1	18	20	3	.	.	42
Fire Affected Rock	Not Identified	10	42	76	186	102	7	5	.	428
Misc. Lithic	Quartz Crystal	4	14	7	12	7	4	2	.	50
TOTAL		37	75	101	241	149	21	10	1	635

TABLE 3: Debitage Materials by Type of Debitage from Hand Excavated Units at SBR-935

	DEBITAGE TYPE									
	Tertiary Flake		Biface Thinning Flake		1st Decort. Flake		2nd Decort. Flake			
MATERIAL	COUNT	%	COUNT	%	COUNT	%	COUNT	%	TOTAL	%
Jasper	2967	33.4%	21	0.2%	24	0.2%	42	0.4%	3054	34.3%
Quartzite	2207	24.8%	.	.	26	0.2%	47	0.5%	2280	25.6%
Undiff. Chert	1810	20.3%	26	0.2%	7	*	14	0.1%	1857	20.9%
Chalcedony	1085	12.2%	16	0.1%	13	0.1%	30	0.3%	1144	12.8%
Obsidian	148	1.6%	3	*	.	.	.	.	151	1.7%
Felsite	132	1.4%	1	*	5	*	3	*	141	1.5%
Quartz	126	1.4%	.	.	.	.	1	*	127	1.4%
Quartz Crystal	74	0.8%	.	.	.	.	.	.	74	0.8%
Basalt	35	0.3%	.	.	.	.	2	*	37	0.4%
Andesite	8	*	.	.	1	*	.	.	9	0.1%
Metachert	5	*	.	.	.	.	.	.	5	*
Shale	3	*	.	.	.	.	.	.	3	*
TOTAL	8600	96.8%	67	0.7%	76	0.8%	139	1.5%	8882	100.0%

TABLE 4: Debitage by Type, Material, and Depth from Hand Excavated Units at SBR-935

		Depth from Surface (cm)									
DEBITAGE TYPE	MATERIAL	0-20	20-40	40-60	60-80	80-100	100-120	120-140	140-160	160-180	TOTAL
Tertiary Flake	Jasper	588	637	446	657	349	201	70	17	2	2967
	Quartzite	324	366	465	487	311	139	92	19	4	2207
	Undiff. Chert	268	367	246	468	202	131	110	18	.	1810
	Chalcedony	180	237	156	245	145	77	38	7	.	1085
	Obsidian	28	27	29	34	10	12	7	1	.	148
	Felsite	12	18	30	32	20	17	3	.	.	132
	Quartz	22	29	19	5	25	4	15	1	6	126
	Quartz Crystal	4	17	7	26	11	5	4	.	.	74
	Basalt	5	6	11	7	3	3	.	.	.	35
	Andesite	1	2	3	.	.	.	2	.	.	8
	Metachert	1	.	2	2	.	.	.	.	.	5
	Shale	.	.	.	3	.	.	.	.	.	3
	SUB-TOTAL	1433	1706	1414	1966	1076	589	341	63	12	8600
Biface Thinning Flake	Undiff. Chert	4	3	2	8	3	4	2	.	.	26
	Jasper	5	4	1	6	1	3	.	1	.	21
	Chalcedony	5	1	1	6	2	.	.	1	.	16
	Obsidian	1	.	1	.	1	.	.	.	.	3
	Felsite	.	.	.	.	1	.	.	.	.	1
	SUB-TOTAL	15	8	5	20	8	7	2	2	.	67
1st Decort. Flake	Quartzite	5	2	4	7	5	2	1	.	.	26
	Jasper	3	4	2	6	7	2	.	.	.	24
	Chalcedony	4	2	1	1	4	.	.	1	.	13
	Undiff. Chert	.	.	.	5	2	.	.	.	.	7
	Felsite	.	1	.	2	1	.	1	.	.	5
	Andesite	1	.	.	.	.	.	.	.	.	1
	SUB-TOTAL	13	9	7	21	19	4	2	1	.	76
2nd Decort. Flake	Quartzite	7	12	7	5	6	8	2	.	.	47
	Jasper	9	5	9	12	3	1	3	.	.	42
	Chalcedony	4	10	1	4	4	6	1	.	.	30
	Undiff. Chert	3	1	1	8	1	.	.	.	.	14
	Felsite	.	.	.	.	1	2	.	.	.	3
	Basalt	.	.	.	.	2	.	.	.	.	2
	Quartz	.	.	.	.	.	.	1	.	.	1
	SUB-TOTAL	23	28	18	29	17	17	7	.	.	139
TOTAL		1484	1751	1444	2036	1120	617	352	66	12	8882

TABLE 5: Counts by Bone by Unit and Depths in Hand excavation Units from SBR-935

	Depth from Surface (cm)									
UNIT	0-20	20-40	40-60	60-80	80-100	100-120	120-140	140-160	160-180	TOTAL
1	23	47	.	28	31	.	9	5	1	144
2	33	21	7	27	1	.	10	.	.	99
3	76	28	39	36	42	16	11	.	.	248
4	1	26	88	22	9	.	.	.	.	146
8	17	2	19	4	2	.	.	.	.	44
9	5	21	13	6	.	8	.	.	.	53
10	30	9	3	3	3	12	.	.	.	60
TOTAL	185	154	169	126	88	36	30	5	1	794

TABLE 6: Grams of Bone by Unit and Depths in Hand Excavation Units from SBR-935

	Depth from Surface (cm)									
UNIT	0-20	20-40	40-60	60-80	80-100	100-120	120-140	140-160	160-180	TOTAL
1	1.11	2.00	.	1.71	4.35	.	1.25	0.31	0.12	10.85
2	59.55	1.21	2.26	1.54	0.01	.	0.47	.	.	65.04
3	4.25	1.90	2.69	1.92	1.21	1.05	0.57	.	.	13.59
4	0.01	2.19	3.14	0.68	0.67	.	.	.	.	6.69
8	11.71	0.55	2.87	1.01	0.33	.	.	.	.	16.47
9	0.35	2.64	1.70	1.17	.	0.17	.	.	.	6.03
10	28.05	2.52	0.62	0.37	0.37	1.53	.	.	.	33.46
TOTAL	105.03	13.01	13.28	8.40	6.94	2.75	2.29	0.31	0.12	152.13

TABLE 7: Chipped Stone Tools by Material from Excavation Units at SBR-935

TOOL TYPE		MATERIAL Obsidian	Felsite	Andesite	Basalt	Jasper	Undiff. Chert	Cherty Shale	Metachert	Chalcedony	Quartz	Quartzite	TOTAL
Bifaces	Projectile Point	5	1	1	.	2	7	.	.	3	.	1	20
	Biface	1	.	.	1	.	4	.	.	3	.	1	10
	SUB-TOTAL	6	1	1	1	2	11	.	.	6	.	2	30
Blades	Prismatic Blade	.	.	.	.	.	.	.	.	1	.	.	1
	SUB-TOTAL	.	.	.	.	.	.	.	.	1	.	.	1
Scrapers	Retouched Flake Scraper	.	.	.	.	.	1	.	.	.	.	.	1
	Utilized Flake Scraper	1	1	.	.	8	2	1	.	4	.	.	17
	SUB-TOTAL	1	1	.	.	8	3	1	.	4	.	.	18
Knives and Misc. Tools	Tool Fragment	.	.	.	.	1	.	.	.	.	.	.	1
	SUB-TOTAL	.	.	.	.	1	.	.	.	.	.	.	1
Core Scrapers and Choppers	Core Scraper	.	.	.	.	.	.	.	.	.	.	1	1
	Chopper	.	.	.	.	.	.	.	.	.	1	2	3
	SUB-TOTAL	.	.	.	.	.	.	.	.	.	1	3	4
Cores and Core Fragments	Core	.	.	.	.	.	1	.	.	.	1	6	8
	Core Fragment	.	3	.	.	5	3	.	1	.	.	32	44
	SUB-TOTAL	.	3	.	.	5	4	.	1	.	1	38	52
Hammerstones	Spherical Hammer	.	.	.	.	.	.	.	.	.	.	1	1
	Angular Hammers	.	.	.	.	.	.	1	.	.	.	3	4
	SUB-TOTAL	.	.	.	.	.	.	1	.	.	.	4	5
TOTAL		7	5	1	1	16	18	2	1	11	2	47	111

TABLE 8: Historic Materials by Depth in Hand Excavation Units at SBR-935

	Depth from Surface 0-20		20-40		40-60		60-80		80-100		100-120		120-140		TOTAL	
MATERIAL	Count	grams	Count	grams	Count	grams	Count	grams	Count	grams	Count	grams	Count	grams	Count	grams
Glass	151	1312.28	26	52.53	13	15.94	9	11.16	2	6.84	1	0.19	1	0.40	203	1399.34
Asphalt/Concrete	2	187.82	2	0.57	2	5.00	.	.	.	.	0	0.84	.	.	6	194.23
Ceramic	2	21.05	.	.	.	.	.	.	.	.	.	.	.	.	2	21.05
Plastic	44	6.72	2	0.08	1	0.16	1	0.45	.	.	.	.	.	.	48	7.41
Rubber	15	1.75	2	0.58	.	.	.	.	.	.	.	.	.	.	17	2.33
Leather	1	0.24	.	.	.	.	.	.	.	.	.	.	.	.	1	0.24
Brick	.	.	.	.	1	1.49	.	.	.	.	.	.	.	.	1	1.49
Metal	166	1459.55	51	110.16	7	48.44	9	53.17	.	.	.	.	.	.	233	1671.32
Bullets	.	.	1	0.37	.	.	.	.	.	.	.	.	.	.	1	0.37
Bottle Top	1	2.05	.	.	.	.	.	.	.	.	.	.	.	.	1	2.05
Fabric	2	0.54	.	.	.	.	.	.	.	.	.	.	.	.	2	0.54
Nail	98	446.84	8	28.14	6	8.38	1	7.24	.	.	.	.	.	.	113	490.60
TOTAL	482	3438.84	92	192.43	30	79.41	20	72.02	2	6.84	1	1.03	1	0.40	628	3790.97

test phase and the monitoring operations. The artifactual materials included ground stone tools, core tools of stone, and flake stone tools. Considerable quantities of flake stone debitage were recovered; most of this was fine-quality jasper, chert, chalcedony, or quartzite. Many fragments of fire-affected rock were noted during the excavations, and several charcoal samples were collected. Seven sherds from native pottery vessels were recovered. The screened soils from the excavated units yielded quantities of tiny and small bone fragments; presumably these bones represented the remains of wildfowl and other small animals hunted as meat-foods. Fish bones were not reported, and few fragments, if any, of large animal bones, such as deer, were present. No bone tools or shell ornaments were recognized, and no scraper planes, mortars, or pestles were found.

The most conspicuous archaeological materials encountered throughout the deposit were large stone metates. Most were formed of granitic slabs, with either a shallow milling basin or a flat grinding surface. There were 47 whole or nearly complete metates with shallow basins, and 37 slab metates which were whole or nearly complete. Many were 30 pounds or more in weight. Several were found stacked together; some were found inverted, as though stored; many were upright; and some had a mano with them. In contrast, only 51 complete or nearly whole manos were encountered.

An absence of apparent ritual items among the archaeological materials was noteworthy and may be appropriate to a summer work settlement. *Yuhavetum* women were referred to by the term *Kotcaviem*, meaning shell bead 'money'; but whatever may have been reflected in this term, no shell beads were recovered from this seasonally occupied location. Further, small quartz crystals catalogued from the investigations occur naturally in the alluvial decomposed quartzite soils of the region (Guillou 1953), and these crystals probably have no archaeological significance.

LATE PREHISTORIC MARKERS

Some of the distinctive artifacts recovered are considered temporal markers and suggest that this site was occupied during the Late Prehistoric period. Projectile points were not very common but were encountered in most levels of the deposit. Three complete small arrow points and several more fragments were found, which presumably are representative of a Late Prehistoric tradition. However, one large point and several more fragments (possibly knives) could represent either Late Prehistoric or earlier artifacts. (The catalog does not include specific shapes or point typologies.) Five of the 21 projectile point specimens were of obsidian, a material exotic to this local area, and a small percentage of lithic waste flakes was obsidian. The frequency for this imported trade material is more typical of local Late Prehistoric times rather than earlier. Additionally, seven sherds of pottery were found, six of Brown Ware ceramics and one sherd of Buff Ware, which would date from the Late Prehistoric period. Thus, there is considerable evidence that the site was occupied sometime within Late Prehistoric period, essentially, sometime between A.D. 900 and A.D. 1900.

Some of the archaeological materials may represent occupations from earlier periods, but evidence for any earlier use of the site is unclear. Most artifact forms commonly used in earlier traditions in the region (Goldberg and Arnold 1988), such as metates, are duplicated by forms in the Late Prehistoric period. No distinctively early artifacts were recognized. No radiocarbon or obsidian dates were secured on materials from the site.

CONCLUSIONS

The archaeological investigations of 1988-1989 in the reservoir project area near the western shore of Baldwin Lake salvaged a sample of the archaeological materials that occurred throughout approximately one-acre of the construction project. Although not evident on the ground surface,

archaeological resources occurred beneath the modern surface and to a depth of two meters in the local soil deposits. The distributional extent of subsurface archaeological remains was not fully determined, but the site seemingly extended well beyond the limits of the project. The SBR-935 archaeological site had been recorded as existing in this general area, based on nearby surface evidence and on ethnographic information. Clearly, it is possible to conclude that much of the SBR-935 archaeological site location has been covered over by local soil deposition processes and is not evident on the modern ground surface.

The record of the historically known ethnographic pattern of *Yuhavetum* summer settlements around the lake includes mention of the occupation of *Maktsuk*, which was located by the great meadow and the hot spring, near the outlet of the Baldwin Lake. The corresponding materials of a Late Prehistoric archaeological tradition were encountered throughout the depth of the site deposit, and the characteristic metates everywhere suggest that similar activities were conducted at this location throughout the many years its of seasonal summer occupations. It can be inferred that the *Yuhavetum* reoccupations of the SBR-935 site extended from the late nineteenth century well back into prehistoric times. Indeed, the *Yuhavetum* creation mythology asserts that the settlement existed from the beginning of their world.

The site location itself, on a great meadow wetland at the lake outflow, suggests a greater local emphasis on the procurement of plant tubers and bulbs as summer food sources than is otherwise evident in the surviving ethnographic record. Through much of the nineteenth century, with local gold mining followed by the development of the Big Bear Lake reservoir with its associated resort settlement, the local patterns of aboriginal activities and settlements at *Maktsuk* were abandoned. This old summer settlement location was no longer used by the *Yuhavetum*, and the site was largely covered by the silty deposits of spring inundations. Memory had lapsed about the very extensive earlier settlement at *Maktsuk* by the time ethnographic records were being collected. The particular summer activities conducted at this location were no longer remembered. Located at the head of a great meadow along the lake outflow, this particular wetland area may have provided an unusual summer abundance of natural tubers and bulbs. Whether these wetland plants were processed on the numerous metates left at the site is unclear. Alternatively, the processing of tubers and bulbs may have required few tools, and the many metates present may have been used primarily to process pinyon pine nuts gathered from the many trees nearby and brought to this settlement. Traces of tubers, pine nuts, etc., might be confirmed by specific tests and provide additional evidence of the particular summer foods gathered and processed at this settlement.

The archaeological materials left behind from each summer reoccupation of the SBR-935 site would have been covered over by winter snows. Thereafter, during major spring melts the lake would have risen, inundated the area, and overflowed across this site location. In the still or slow moving waters of the lake, soil deposition processes occurred which covered over the archaeological materials. Some archaeological items, particularly lighter materials, may have been moved, floated, or otherwise redistributed in these spring flood episodes. The extent of such disruption on the original deposition of archaeological materials is unclear, for some light bone fragments and thin lithic flakes remained buried in the soil deposit. On the other hand, the very heavy metates of dense granite often may have settled into the saturated ground, sunk below the surface, and been covered over with flood soil deposits. This may account for the seemingly unusual number of whole metates left behind in this archaeological site. Upon returning to this summer settlement after major spring melts, it often may have been necessary to replace heavy metates that could no longer be located from the occupations of past years.

In this manner, the archaeological materials of the SBR-935 site were incorporated into the local soil accumulation processes as the settlement became buried. Thus, this site is unusual because it

is a documented case of an archaeological site naturally buried in deep soil deposits and obscured from normal view.

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