70. A Report on Indian Sites and Trails Huntington Lake Region, California

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In a five year period, from 1953 to 1958, one hundred and twelve sites in the Huntington Lake region have been explored and reported. Most of the sites have been visited by the author, but it should be noted that the survey has been a cooperative project between several persons. Brother Avila, F.S.C., presently teaching at the Christian Brothers' School in Sacramento, and Mr. L. A. Robinson of Big Creek, California, have been my chief collaborators and have discovered a great number of the sites mentioned in this report. I should also like to extend my thanks to the following persons who provided information and assistance in the furthering of the project: my husband, Mr. B. G. Hindes, and my brother, Dr. M. R. Gibbons, Jr., both of Ross, and Mr. T. Newton Russell of Fresno, California. In addition I wish to acknowledge my debt to the following persons who served as informants concerning the Indians and the archaeology of the Huntington Lake region: Mr. Harvey Ince of Fresno; Mr. and Mrs. John Marvin and Mrs. Emma Majors of Auberry; Mr. Morgan Blasingame and Mr. Knox Blasingame, Jr., of Clovis; and Mr. Fred Ross of San Jose, California. Finally, my appreciation is here expressed to Dr. R. F. Heizer and Mr. A. B. Elsasser of the University of California Archaeological Survey in Berkeley, both of whom have offered encouragement and advice in the writing of this report.

The majority of the sites, which are located in altitudes over 4,000 feet, are characterized by the presence of obsidian flakes and occasional artifacts scattered about the surface, and often by associated granitic outcrops containing mortar holes. Most of the exploration has been in the higher altitudes because of the special interest in seasonal occupation of the mountains and possible trade routes from east to west or west to east over the crest of the Sierra Nevada. As sites were discovered, evidence grew that there were established Indian routes in former days, and that Indian sites had been used for different purposes according to location and natural characteristics. This report will attempt to describe the evidence, although more exploration and study will be necessary before final conclusions may be drawn.

As will be seen, ethnographic information or statements by modern explorers of the Sierra, such as John Muir, have been heavily relied upon to

establish use by Indians of the various trails and passes in the Sierra Nevada. In a sense, then, the purpose of the present author's investigation has been to confirm, where possible, such use. It is believed that the finding of even small scatterings of obsidian near or athwart high altitude trails represents confirmation. Furthermore, it has been possible to predict, in some cases, where camp sites might occur. For example, the sites along Ordinance Creek had not been known beforehand to the author. While scanning the topographic map and recalling the nature of the terrain at either end of the area, it appeared logical that sites should occur somewhere along the length of the creek. Subsequent investigation proved this to be the case.

The boundaries of our explorations, and those reported by others in this region, are from Paiute, Mono, and Mammoth Passes on the east, Corlew Meadow (near Auberry) on the west, Evolution Valley on the south, and Cow Meadow and Daulton Station on the north (see Map 1).*

Within this extensive area there are undoubtedly many more sites to be found. Those in the lower altitudes west of the Sierra were explored in order to establish the location of the permanent, i.e., winter occupation, sites from which the Indians came when they made their summer trips to the mountains. No sites in lower altitudes east of the Sierra are reported here, but it has been established, by Steward (1933) for example, that Indians of Mono and Inyo Counties went west into the Sierra to trade.

In searching for sites the following factors for the Indians' choice of location were noted:

1. Nearness to a stream or spring. Frequently sites were found at the junction of two streams.

2. Presence of open sandy levels or near-level ground where maximum sunlight was available. The level area was often a high plateau.

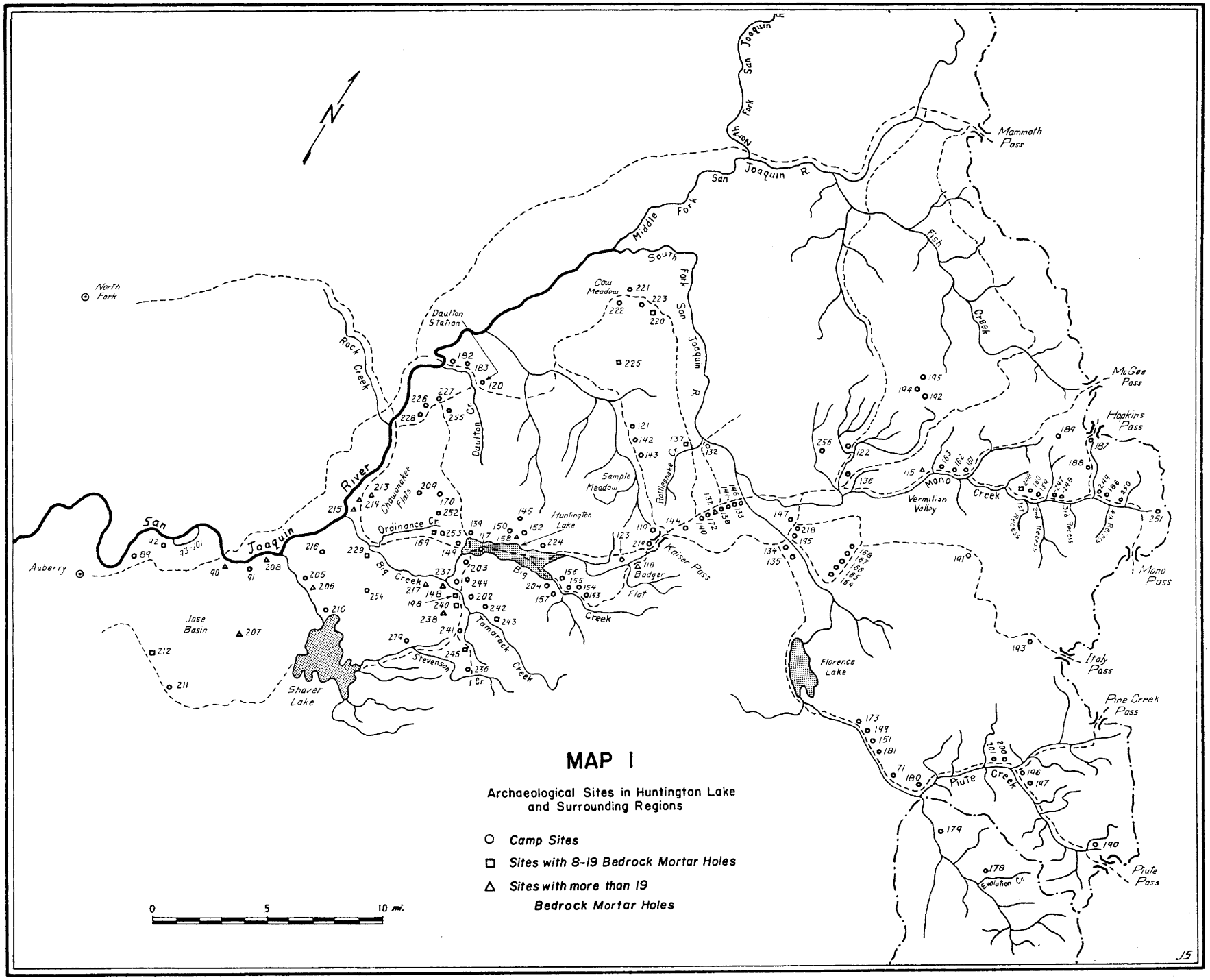
3. Closeness to meadows.

4. Presence of granite outcroppings for bedrock mortars.

5. Relation to main trade routes or route junctions.

Temporary sites, e.g., those used perhaps overnight by small hunting parties or by groups traveling from one place to another, did not necessarily have all these characteristics. However, recognition of these factors assisted us in finding new sites. The evidence presented here was

* Dashed lines shown on map represent, in most cases, trails which were probably in use in aboriginal times.


N
North Fork San Joaquin R.
Mammoth Pass
Middle Fork San Joaquin R.
South Fork San Joaquin R.
Fish Creek
McGee Pass
Hopkins Pass
Mono Creek
Vermilion Valley
Mono Pass
Italy Pass
Pine Creek Pass
Piute Creek
Piute Pass
Florence Lake
Evolution Cr.
Cow Meadow
Sample Meadow
Rattlesnake Cr.
Kaiser Pass
Badger Flat
Big Creek
Huntington Lake
Ordinance Cr.
Chawanakee Flats
Rock Creek
Dauiton Station
Dauiton Cr.
North Fork
San Joaquin River
Auberry
Jose Basin
Shaver Lake
Stevenson Cr.
Tamarack Creek
0 5 10 mi.
MAP I
Archaeological Sites in Huntington Lake and Surrounding Regions
Camp Sites
Sites with 8-19 Bedrock Mortar Holes
Sites with more than 19 Bedrock Mortar Holes
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gained mostly from surface findings, although at five of the sites small test pits were excavated in 1957 and 1958.

The Indians occupying or traveling through this region in historic times were Eastern Mono (Owens Valley Paiute) on the eastern side of the range and Western Mono on the western side. Steward (op. cit., p. 235) reports that "Paiute intermarried and traded with . . . Western Mono, their cultural and linguistic kin." "People crossed from both sides, making hurried trips" (ibid., p. 257). He specifically mentions contact with the Western Mono of the Jose Basin, where there is an historic Indian settlement still occupied by Western Mono.

Mr. Johnny Marvin, a Western Mono now living near Auberry, stated that he thought the Paiute and Western Mono were cousins because of their language similarity, and that all came originally from the Great Basin. Mr. Harvey Ince, a Klamath Indian now living and working at Huntington Lake in the summers, has fairly intimate contact with the Indians of Auberry and says they claim to be part Mono, part Paiute, and part Chukchansi (Yokuts).

Kroeber (1922) groups the Northern Paiute, the Eastern Mono (Paiute), and Western Mono under the Shoshonean (linguistic) family. He states (1923, p. 123) that, "The Shoshoneans were probably spreading out of the Great Basin across the deserts toward the coast. They may have reached the ocean toward the close of the [second] period."

Although, as Kroeber notes (1925, p. 585), the Owens Valley Paiute (Eastern Mono) and the Western Mono have remarkably similar dialects, relationship between the two groups is not so clear-cut where migration legends or physical or culture type are concerned. Gifford, for example (1932, p. 16), writes about a Northfork Mono informant who "said his grandfather told him the first Northfork Mono came from the Bishop region east of the Sierra Nevada. However, I could obtain no story of a migration from across the Sierra, whence the Western Mono may be inferred from their Shoshonean speech to have come. According to their myths, also, the Western Mono of Northfork always lived where they are now." Again (ibid., p. 55), "There is much about the Northfork Mono that suggests close affinity to other tribes on the western slope of the Sierra. Favorable environment permitted more settled existence than that of the Shoshonean relatives of the Great Basin." "All of these Western Mono groups were in their cultural outlook definitely of the San Joaquin Valley drainage rather than of the Great Basin. Their general mode of life was more like that of the foothill Yokuts and the Miwok than that of the Eastern Mono" (ibid., p. 15).

There is, apparently, a contrast in physical type between the Eastern (Owens Valley Paiute) and Western Mono, but not in the direction expected. Gifford (1951, p. 86) states, "Although speaking a language only slightly different from that of the physically distinctive Western Mono, the Eastern Mono are unlike them in physical type and belong instead to the widespread California type to which their other neighbors, the Washo and Miwok, belong." and, "The Western Mono type will probably be found to have relatives elsewhere" (ibid., p. 87).

Whatever the details of the common origin of the Owens Valley Paiute and the Western Mono are, we know that they intermingled for centuries. We also have evidence that the Mono of Northfork and the Mono of Jose Basin were friendly and crossed into one another's territories. Gifford (1932, p. 23) says, "Salt was obtained from a spring named Omabaya, about one mile downstream from Big Creek powerhouse on the south side of the San Joaquin."

Mr. Marvin said that the Northfork Indians used Mono Pass (southern) and we will discuss later the possibility that they mingled with the Mono from the south side of the San Joaquin at sites on the northern border of this region, such as Fre-183 (Daulton Creek) or Fre-137 (Rattlesnake Creek).

There seems to be no possible way to distinguish occupational differences between the sites of the region being studied, and there is, therefore, no way at present to determine whether they were used by Western Mono or Owens Valley Paiute. Mr. Marvin said from what he had heard from his people the Paiute traveled all the way to Auberry, and both Paiute and Western Mono used Mono Hot Springs. Lathrap and Shutler (1955, p. 227) report, "Ethnographic information indicates that the Owens Valley Paiute habitually used specific summer camping spots in the basin of the South Fork of the San Joaquin. These were resting places along their main trail into the San Joaquin River Canyon, which crossed Paiute Pass and followed Paiute Creek down its junction with the South Fork of the San Joaquin. . . . Most of the traveling was done by the Owens Valley Paiute."

Occupational differences might be noted if there were portable mortars at some sites and not at others. Steward (op. cit., p. 239) tells us that the people of Owens Valley and Death Valley used metates and portable (wooden) mortars, respectively, for grinding of most seeds. He does not mention bedrock mortars except in use with acorns on the eastern side of the Sierra (ibid., p. 246). The Western Mono, although employing predominantly the bedrock mortar for grinding acorns, had portable stone mortars and wooden bowls which were, perhaps, related to the Yokuts wooden mortar (Gifford, 1932, pp. 24, 25). We must assume therefore that the Western Mono or Yokuts did not carry their portable stone mortars to the mountains, and

neither the latter nor the people from the eastern side of the Sierra took wooden mortars along to the summer sites. If any group did carry the wooden mortar to the mountains, no trace of it was found in the present survey.

Specific routes have been mentioned in connection with certain Indian groups. Gifford (1932, p. 19) says that the Northfork Mono went to the east by way of Rock Creek and the Middle Fork of the San Joaquin and thence through Mammoth Pass, sometimes remaining a year or two. They went to gather pine nuts (and probably other supplies, such as obsidian). "People from a number of villages traveled together in the trip to Owens Valley, always in summer." Mr. Marvin substantiated this statement.

The Mono Indians on the south side of the San Joaquin from the Shaver Lake area and Auberry area also were reported to have gone into the Sierra to the east. Emma Majors, an old Indian woman (Western Mono) living at Matthew's Mill (near Auberry), told me that each summer her people used to travel into the mountains.

Mr. Harvey Ince told the author that he has heard that the Auberry Indians went to the east by way of Kaiser Pass and thence to the Florence Lake area, also to Mono Hot Springs and Vermilion Valley.

Mr. Marvin commented that "the Indians traveled all over the country." There was probably very little territory they did not cover in their hunting and searching for plants which we know they used, although they probably used specific trails when going from one place to another. He said that when Huntington Lake was a valley without a reservoir, it was used as a rancheria settlement up into historic times by the Indians from the west. This has been substantiated by the finding of sites on every stream entering this former open valley and of heavy deposits of obsidian at the bottom of Huntington Lake when it was drained in 1956.

There are several definite statements in early historical records of California which should be noted in considering Indian routes and trails in this region. They do not mention specific groups but speak of Indians in general. For example, Muir (1913, p. 80) writes, "It is interesting to observe how surely the alp-crossing animals of every kind fall into the same trails. The more rugged and inaccessible the general character of the topography of any particular region, the more surely will the trails of white men, Indians, bear, wild sheep, etc., be found converging in the best places." Muir (ibid., p. 75) discusses the passes used by the Indians as follows: "One of these Indian trails crosses the range by a nameless pass between the headwaters of the South and Middle Forks of the San Joaquin, the other between the North and Middle Forks of the same river, just to the south of the 'Minarets'; this last being about 9000 feet high is lowest of the five. The Kearsarge is the highest." It is now believed that Muir was referring first

to Mono Pass, southern, and second to Mammoth Pass, both within the region here under discussion.

Starr, an experienced Sierran mountain climber, states (1956, p. x): "The trail routes into and across the Sierra Nevada found by early American pioneers were those which had long been used by Indians. . . . These Indian trails evidently afforded means for crossing the mountains for the purpose of trading between tribes living east and west of the range. . . . Owens Valley was the home of Piute Indians. They used [southern] Mono Pass, Piute Pass and Kearsarge Pass to cross the range on the routes of the present trails." Mammoth Pass should be added to this list as it applies to the picture of this region. [Spelling: Piute = Paiute (preferred)]

Solomons (1894, p. 73) gives us the following information: "We were now in more frequently traveled country, being indeed on the old Mammoth trail to Owen Valley. The once celebrated pass--one of the best in the range--may easily be distinguished as the lowest point of the divide."

As already noted, Gifford mentions that the Northfork Indians traveled east by way of Mammoth Pass.

Lathrap and Shutler (op. cit., p. 228) comment: "That there was a trans-Sierra trail running through Vermilion Valley is less definitely established, but the existence of such a trail seems highly probable. . . . Once one crosses Mono Pass going east to west, there is no feasible route except down Mono Creek and through Vermilion Valley."

Solomons (1895, p. 226) mentions Mono Creek, which is the natural route from Vermilion Valley into the Huntington Lake region: "We made our way around to Mono Creek, a large stream which rises on the main crest, flows southwest for about 20 miles, and empties into the South Fork. It was this creek that the old Geological Survey party descended on reentering the mountains from the Owens Valley, and the Indian trail they followed is still used every summer by the few remaining Indians of Madera County." It is probable that Solomons was talking about the Northfork Mono, who, Mr. Marvin said, also used this pass. Solomons might well have added "Fresno County Indians" to those of Madera County.

It has been established without question that there were certain definite trade commodities exchanged between the Western Mono and the Owens Valley Paiute. Sample (1950, p. 5) says, "It seems apparent that in California as a whole, east-west trade was more important than north-south trade." However, she states (ibid., p. 4) that the Mono only occasionally went across the Sierra to the Owens Valley Paiute. This may be true of

their going all the way, but there is certainly much evidence of yearly seasonal travel into the higher altitudes where they went to hunt or trade. In trading it seems likely that there must have been definite trading centers. If one can assume that the articles traded bear some relation to the location of the sites, it may be profitable to consider the sites from this point of view.

Sample (op. cit., p. 18) summarizes the items which the Western Mono received from the Paiute: "Rabbit skin blankets, moccasins, rock salt, red and blue paint, sinew backed bows [juniper?], jerked deer meat, nuts of Digger pine, sugar pine and the piñon, basket water bottles, obsidian, baskets, mountain sheep skins, sleeveless buckskin jackets, leggings of foxskin, unfinished obsidian arrowheads."

The Western Mono supplied to the Paiute: " . . . acorns, willowbark baskets, bead money, manzanita berries, salt, buckskin, clam shell disk and tubular shell money, canes for arrows, acorn flour, tobacco" (ibid.).

From the point of view of this study and the analysis of site locations, obsidian becomes an important trade item because of the area from which it came. The obsidian found on every site in this region probably came from the east side of the Sierra Nevada, which meant trading or gathering on the spot for the Western Mono. Steward (op. cit., p. 262) says, "Mono Lake obsidian came from Glass Mountain [between Bishop and Mono Lake, northeast of Mammoth Pass]. . . . Other sources of obsidian were: volcanic rock (bearing petroglyphs) at Fish Springs and probably lava south of Big Pine and near Bishop. A poisonous obsidian, which people avoided touching, was said to occur at the Bertrand ranch, 60 miles northwest of Benton."

Meighan (1955, p. 9) states, "One of the most interesting locations in the Benton Range is an extensive obsidian quarry. . . . Larger concentrations, including rather extensive veins of obsidian (both red and black) are found as outcrops in various localities, the most important being Glass Mountain." So far as the sites of the Huntington Lake region which may have been connected with this finest obsidian quarry are concerned, its location is significant. However, it should be noted that obsidian of poorer quality was available to the south and east.

Game in the mountains was one of the chief attractions as food, but represented as well an item of trade, in skins, for example. It is reported that the salmon which came up the main San Joaquin was much prized and that Indians, even the Paiute from the east, traveled many miles to obtain it. The question of whether trout occurred in this region is controversial. The absence of any native fishing implements, as far as we are able to recognize

them, is perhaps indicative of the absence of trout. Hutchinson (1903, p. 205) reported, "No fish and but little game can be found in the region. From the time we left Big Creek . . . till we reached the lower course of Fish Creek we found the streams troutless."

To return to the subject of routes, let us consider certain ones which are well known and traditionally accepted as Indian trails in this region. The Mono Trail and the Shaver Trail still appear on the 1953 U. S. Geological Survey map. The Shaver Trail runs from the North Fork of Stevenson Creek, which flows into Shaver Lake, to the South Fork of Tamarack Creek, where it joins the Mono Trail. The latter proceeds up the South Fork of Tamarack Creek to its junction with Pitman Creek and thence to the present location of the Southern California Edison Power Company Dam No. 2 at Huntington Lake. It goes from here to Kaiser Pass east of Huntington Lake, over the slope (not around it, i.e., by the present vehicle road) to the location of Camp 61 (former construction camp of the Southern California Edison Company), across the South Fork of the San Joaquin to Mono Creek and up this creek to Vermilion Valley. From here it proceeds up Mono Creek beyond the Four Recesses to Mono Pass.

On Map 1 may be noted a series of small triangles which represent the larger sites along this route. Largeness is judged according to the number of bedrock mortar holes present and the horizontal measurements of the site. It is apparent that the majority of the larger sites, other than permanent sites in the lower altitudes, are on this Mono Trail. This was further substantiated by Brother Avila's exploration of the Mono Creek route in the summer of 1958. Sites were found strung all along the trail east of Edison Lake to Mono Pass. The historic Vermilion Valley site excavated by Lathrap and Shutler was one of the sites on this route.

The main sites and probable trading centers on this trail are Fre-158 at Line Creek (Huntington Lake), Fre-118 (Badger Flat), Fre-123 (near Camp 61), and Fre-115 (Vermilion Valley).

Bennyhoff, in his Yosemite report (1956), has classed a large village as one having 19 or more bedrock mortar holes. All of the sites shown as triangles on Map 1 fall into this category, and all of these above 4,400 feet, except Fre-217 (Camp Sierra), Fre-148 (Town of Big Creek), and Fre-238 (Snowslide Creek), are found along this main stem. Sites Fre-217, 148, and 238 may be considered as occurring on a lower branch of the Mono Trail used by Indians from Jose Basin.

For purposes of analysis let us assume that the size of the site is indicated by the number of bedrock mortar holes. There are, of course, many

factors that may influence the presence of mortars, such as the purpose for which the site was used and the type or condition of the granite. For example, a site may have had repeated use for short seasonal periods, in which case there may be extensive scatterings of obsidian chips remaining and but few shallow mortar holes. Such sites were probably used temporarily when the Indians were enroute to larger sites or trading centers. Sites that seem to fall into this category are Fre-256 (Boggy Creek #1), Fre-169 (Sheepthief Creek), and Fre-198 (Tamarack-Pitman, West). Table 1 below summarizes sites located in 1957 and 1958 and lists number of bedrock mortars and altitudes.

Table 1

Altitude and Number of Bedrock Mortar Holes Per Site

Site	Name	No. of holes	Deepest hole (in.)	Altitude of site (ft.)
Fre-115	Vermilion Valley	22	3 1/4	7600
Fre-117	Under Huntington Lake	some		6900
Fre-118	Badger Flats	29	6	8328
Fre-119	Summit Meadow, North	5	2	8720
Fre-123	Nr. Camp 61	31	6	6960
Fre-137	Rattlesnake Creek	14	7	6720
Fre-142	Central Sample Meadow	4	2 1/2	7840
Fre-145	Line Creek #4, North	5		7760
Fre-148	Town of Big Creek	31	8	5017
Fre-149	Dowville	6	4 1/2	7040
Fre-158	Line Creek #1	31	8	6960
Fre-161	Mono-North Fork Creeks	2		7779
Fre-169	Sheepthief Creek	15	7 1/2	7440
Fre-186	Mono-Hopkins Creeks	9	5	9280
Fre-198	Pitman-Tamarack, West	11	3	7117
Fre-202	Pitman-Tamarack, East	4	5	7149
Fre-205	Orchard, Stevenson Creek	7	shallow	4400
Fre-206	Stevenson Creek Bridge	21	8 1/2	4400
Fre-207	Matthew's Mill	254	9	3106
Fre-208	Burial Site, Edison Rd.	19	8 1/2	2160
Fre-209	Stream N.of Mushroom Rock	6	4	7120
Fre-210	Shaver Dam	1		5280
Fre-211	Alder Springs Rd.	4	shallow	4509
Fre-212	Corlew Meadow	10	deep	4356
Fre-213	Chawanakee Flats, ABC	52	6	3120

Table 1 (continued)

Site	Name	No. of holes	Deepest hole (in.)	Altitude of site (ft.)
Fre-214	Chawanakee Flats #2	21	7	3200
Fre-215	Chawanakee Flats #3	31	7 1/2	2640
Fre-217	Camp Sierra	20	8 1/2	4400
Fre-220	Hoffman Meadow	18	7	7000
Fre-225	Half Corral	14	4	8200
Fre-226	Stump Springs Rd. #1			4560
Fre-229	Edison Rd. #2	11	7	3360
Fre-236	Tamarack Meadow	5	3 1/2	7360
Fre-237	Pitman Creek #1	2	1	7200
Fre-238	Snowslide Creek	19	9	5600
Fre-239	Camp 73	4	2 1/2	6080
Fre-243	Tamarack Creek #2	15	5	7300
Fre-244	Highway 168, #1	5	6	7280
Fre-245	S. Tamarack Creek #2	18	6 1/2	7561
Fre-246	First Recess	8	4 1/2	8340
Fre-247	Mono-Laurel Creeks	1	3 1/2	8960
Fre-252	Ordinance Creek, West	5	8 1/2	7520
Fre-254	Ely Meadow	1	2	5875
Fre-255	Stump Springs #4	2	shallow	5400
Fre-256	Boggy Creek #1	6	2 1/4	7760

In the light of present explorations and historical reports, it seems now within reason to establish definitely that the Mono Trail was a main route and central stem through this region.

Lathrap and Shutler have mentioned the route through Paiute Pass by way of Blaney Meadows, Hutchinson Meadow, and Humphries Basin. In the summer of 1957 Brother Avila followed this route and found sites as expected, proving the use of this trail to the Pass.

Although it has not been possible to explore the routes all the way to Mammoth Pass, we have Gifford's report (1932, p. 19) that the Northfork Indians used this pass. It is believed that there were several routes from the Huntington Lake region which joined this route.

There are many trails which have suggested themselves through exploration of sites which branch from the main stem (Mono Trail) or join it from other directions. The permanent centers of occupation, i.e., winter villages, on the west of this region were at Auberry (or Jose Basin), possibly at Shaver Lake, at Northfork, and at Chawanakee Flats. There were two routes from the Jose Basin area to the higher altitudes, according to sites discovered. One was by way of Corlew Meadow (Fre-212) and the Alder Springs site (Fre-211) to Shaver Lake. The other was by way of the general route of the Old Railroad Grade Road to Camp Sierra (Fre-217) and Big Creek or over to Chawanakee Flats, one of the largest settlements just below the mountains. From Big Creek the Indians may have gone up by way of Snowslide Creek site (Fre-238) or Camp Sierra (Fre-217) to meet the Mono Trail out of Shaver Lake, or they may have crossed at Power House No. 2 on Big Creek and proceeded up Ordinance Creek to Huntington Lake. Those coming from Chawanakee Flats probably used this latter route. Explorations have indicated the presence of two fairly large sites on the Ordinance Creek route, Fre-169 on Sheepthief Creek, and Fre-229 on Ordinance Creek. Mr. Marvin told us that the old trail which ran up the ridge to the south of Ordinance Creek can still be found. Locating this trail was important since it probably represents the only other feasible route in this precipitous terrain, besides the Mono Trail itself, from the lower altitudes up to Huntington Lake.

There is also evidence that the Indians of Chawanakee Flats went around to Daulton Creek and Kaiser Creek to the north by way of benches above and east of the main San Joaquin River. Sites have been located along these benches. By this route they could proceed to Mammoth Pass as did the Northfork Indians or follow up Kaiser Creek to Sample Meadows and thence to Kaiser Pass and on to Mono Pass.

It is interesting to note the sites along the meadows on the south and west sides of the South Fork of the San Joaquin River. With the exception of Fre-221 (Cow Meadow), these fall in the small village category (8 to 19 bedrock mortar holes). Fre-220 (Hoffman Meadow), Fre-225 (Half Corral Meadow), and Fre-137 (Rattlesnake Creek), for example, are all small village sites represented by small square symbols on Map 1. Rattlesnake Creek is within easy distance of the large Mono Trail site Fre-123 (near locality known as Camp 61). These sites not on the Mono Trail may have been used in connection with trade or routes to the north. As has been pointed out above, the finest obsidian was to be found to the north. Fre-123, an outstanding site both in size and location, could have been a trading center for Indians from the north as well as from the east and west.

A preliminary comparison of projectile points from the northernmost sites explored in this region by 1957 was made with specimens from Yosemite,

and Mono County. Although the study was done on the basis of surface findings only, it indicated that the points from these sites were more similar to those of northern sites in type and number than to those from sites to the south, i.e., Iny-2 and Fre-115 (Vermilion Valley). Lathrap and Shutler, (op. cit., p. 233) report that "the point assemblage from Vermilion Valley as a whole is remarkably similar to the collection from Iny-2, an historic Owens Valley Paiute settlement on the eastern side of the Sierra 60 miles [to the] south."

It was also discovered by my study of the points from the general Huntington Lake region in 1957 that they were not similar to the Vermilion findings. This may indicate that there was trading from other sources or occupation by different groups. A thorough study of the artifacts of the region should be made. It may bring to light some interesting facts, although it is likely that the trading and mixing of the peoples will confuse the findings, particularly if the Western Mono and Owens Valley Paiute had similar cultural development and constantly intermingled and shared the sites.

More exploration is necessary before we can be sure that the Indians from the Huntington Lake region traded with the Indians who used the Mammoth Pass or traveled there themselves. However, it is obvious that there were more trails out of the region to the north than to the south. Seven possible routes from the Huntington Lake region to the north are known.

Besides those already mentioned, other possible routes were: out of Vermilion Valley by way of Cold Creek and Goodale Pass, by Boggy Creek site (Fre-225) to Margaret Lakes, and by the North Fork of Mono Creek and the general route of the present Muir Trail. Sites have been located to indicate the possibility of all these routes. Another route as yet unexplored was probably from Mono Meadow to Four Forks Creek to Rock Creek, thence to join the trail to Mammoth Pass. Mr. Knox Blasingame, Jr., who runs cattle in this area, has reported sites at these two creeks. A seventh route is from Huntington Lake, up Home Camp Creek to Aspen Meadow and down to Daulton Station. Sites were found along this route.

It should be noted that it is not possible to travel down in the canyon of the main San Joaquin in this region or down the South Fork of the San Joaquin below Rattlesnake Creek because of the steepness of the former and the boxed-canyon formation of the latter. Sites and trails were above the rivers except in spots where the Indians managed to cross.

Although the areas of Dinkey Creek and Helms Creek have not been explored, there have been few reports of Indian occupation from these sections to the south. However, there probably were Indian routes to the Kings River area.

So far, the major sites and probable routes have been pointed out. There are, however, other sites of interest to be mentioned. In the 1 to 7 bedrock mortar group, temporary sites such as hunting and family sites are to be found. Small sites in the very high altitudes, such as those reported at Hopkins and McGee Lakes near the crest of the Sierra, would seem to defy explanation. However, it is possible that these were used by the Indians when hunting bighorn sheep, which were known to have existed in this area. I have already mentioned that mountain sheepskins were traded from the Paiute. Hutchinson (op. cit., p. 202) reports seeing mountain sheep at Red and White Peak in 1903. Mr. Marvin told the author he had heard that the Indians hunted them. It should also be noted that in 1958 a concentration of obsidian chips was found at McGee Pass. Other high passes, besides the main ones already mentioned, have been reported as showing signs of the presence of Indians. McGee Pass was the only one explored in the present survey (by Peter Hindes), but it appears that all the passes may have been used by the Indians for occasional hunting trips or as the easiest for main travel.

On Map 1 will be noted some small sites on Bear Creek, Big Creek, Line Creek, Tamarack Creeks, and Home Creek. These were probably either small hunting or family sites. It may have been the habit of the Indians to make a small camp and travel to the larger sites for trade and ceremony; more than one large site is seldom found on a stream. There may be scatterings of obsidian along a stream bank in several spots but no evidence of more than one large occupation. It is possible the Indians discovered that disease could spread when persons were camped close to one another on a stream. This would explain why sites were found on so many creeks in this region--a family may have claimed a stream and returned each year to occupy it.

In conclusion, following the results of our explorations and information gathered on this region, it appears that Mammoth Pass, Mono Pass (southern), and Paiute Pass were the three main passes used by the Indians of this area. It is known that the Kings River and Sequoia areas and the Yosemite area had numerous trade routes and may also have had main routes from west to east. The apparent funneling through Huntington Lake canyon from a fan-like spreading of trails is, perhaps, unusual. One can picture a rough triangle formation--the three passes to the east are the long side of the triangle, Huntington Lake is the point of the triangle.

Modern trails marked on the present-day U. S. Geological Survey maps coincide to a great extent with old routes said to have been used by the Indians. The exact positions of the ancient trails are difficult to determine except by location of sites or knowledge passed down by old-timers. We know there are routes not yet explored and many will remain a mystery as they are now overgrown and forgotton by those who, in the past, had occasion to use them.

Bibliography

Bennyhoff, J. A.
1956 An Appraisal of the Archaeological Resources of Yosemite National Park. UCAS-Report No. 34, 71 pp.

Gifford, E. W.
1932 The Northfork Mono. UCPAAE, Vol. 31, pp. 15-65.

1951 California Indian Physical Types. In The California Indian: A Source Book Compiled by R. F. Heizer and M. A. Whipple. U. C. Press, pp. 82-87. (Reprinted from Natural History [1926], Vol. 26, pp. 50-60.)

Hutchinson, L.
1903 Red and White Peak and the Head-waters of Fish Creek. Sierra Club Bulletin, Vol. IV, pp. 193-206.

Kroeber, A. L.
1922 Elements of Culture in Native California. UCPAAE, Vol. 13, pp. 260-328.

1923 The History of Native Culture in California. UCPAAE, Vol. 20, pp. 125-42.

1925 Handbook of the Indians of California. Bur. Amer. Ethnol. Bull. No. 78.

Lathrap, D. and D. Shutler, Jr.
1955 An Archaeological Site in the High Sierra of California. American Antiquity, Vol. 20, pp. 226-40.

Meighan, C. W.
1955 Notes on the Archaeology of Mono County, California. UCAS-Report No. 28, pp. 6-28.

Muir, J.
1913 The Mountains of California. The Century Co. New York.

Riddell, H. S.
1951 The Archaeology of a Paiute Village Site in the Owens Valley. UCAS-Report No. 12, pp. 14-28.

Sample, L. L.
1950 Trade and Trails of Aboriginal California. UCAS-Report No. 8, 30 pp.

Solomons, T. S.
1894 Among the Sources of the San Joaquin. Sierra Club Bulletin, Vol. 1, pp. 61-84.

1895 A Search for a High Mountain Route from the Yosemite to the Kings River Cañon. Sierra Club Bulletin, Vol. 1, pp. 221-37.

Starr, W. A., Jr.
1956 Starr's Guide to the John Muir Trail and the High Sierra Region. 6th Ed. Sierra Club. San Francisco.

Steward, J. H.
1933 Ethnography of the Owens Valley Paiute. UCPAAE, Vol. 33, pp. 233-350.