

Contents

	Page
Correspondence	ii
Foreword (by R. F. Heizer)	iv
Preface.	v
Introduction	1
General Ethnographic and Archaeological Notes.	3
Post Indian Alteration of the Landscape and Destruction of Aboriginal Sites	9
Procedure in Excavation.	11
Discussion of Projectile Points Recovered.	13
Excavation of Sites:	
Tri-47 (Hay Gulch Site)	16
Tri-49 (Bragdon Gulch Site)	22
Tri-55 (Robinson Bar Site).	23
Tri-58 (Frank Pierce Site).	24
Summary and Conclusions.	32
Bibliography	34
Explanation of Figures	37
Explanation of Plates and Maps	38

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Illustrations

	Following page
Figure 1. Traits Observed at Site Tri-47.	38
Figure 2. Traits Observed at Site Tri-58.	38
Plate 1. Various Views of Site Tri-47.	38
Plate 2. Views of Sites Tri-47, 49, and 58	38
Map 1. Tri-47 (Hay Gulch Site)	38
Map 2. Tri-49 (Bragdon Gulch Site)	38
Map 3. Tri-55 (Robinson Bar Site).	38
Map 4. Tri-58 (Frank Pierce Site).	38
Map 5. The Archaeological Sites in the Trinity Reservoir Area	38

University of California Archaeological Survey

Department of Anthropology

Berkeley 4, California

February 24, 1958

Mr. Paul J. F. Schumacher
Archaeologist
National Park Service
Region Four
180 New Montgomery Street
San Francisco, California

Dear Mr. Schumacher:

Submitted herewith are three copies of a report of the archaeological investigations in the Trinity River Division, Trinity County, California. This work was carried out under the terms of Contract No. 14-10-434-166, between the National Park Service and the University of California. The present report should indicate satisfaction of Articles I (a), (b), (d) of the contract, while this letter of transmittal is in satisfaction of Article I (e) of said contract. Article I (d) of the contract stipulates submission of a detailed interim report in the event that the Service contracts with the University of California for further archaeological excavation in the Trinity River Division during the 1958 fiscal year. Such work has in fact been contracted, hence the present report, while in one sense an interim report, is actually a final detailed report for the purposes of the present contract. Fortunately the nature of the archaeological work allowed such a logical division, with no necessity for withholding any section of the report until the current year.

With reference to publication, it is anticipated that this report will be printed in the U.C.A.S. Reports, No. 43, under specifications cited in Article I (f) of the contract. Request is hereby made that, if possible, your office expedite review of this report, so that, with acceptance, we may proceed with the printing. In any case, the publication date will probably not be before the expiration of the sixty day period required in the contract.

Sincerely yours,

Robert F. Heizer
Director

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR

180 New Montgomery Street
San Francisco 5, California

March 12, 1958

Dr. Robert Gordon Sproul
President, University of California
Berkeley 4, California

Dear Dr. Sproul:

It gives us great pleasure to acknowledge receipt of and to accept Dr. Adan E. Treganza's report "Salvage Archaeology in the Trinity Reservoir Area, Northern California," which was submitted by Dr. Robert F. Heizer, Director, University of California Archaeological Survey, in partial fulfillment of Contract No. 14-10-434-166 between the University of California and the National Park Service for excavation and archeological study of the Trinity and Lewiston reservoir areas.

We appreciate the careful manner in which the work during the 1957 season was performed and the excellence of the report. Dr. Treganza is to be commended for the close cooperation he has shown with the Bureau of Reclamation personnel and the fine relationships he has had with the residents of the Upper Trinity Reservoir area. This report is a worthwhile contribution to the knowledge of the Wintu Indians of north central California. The National Park Service is especially interested in Dr. Treganza's review of the importance of performing salvage archeology as early as possible prior to any construction activities as presented in the chapter "Post Indian Alteration of the Landscape and Destruction of Aboriginal Sites." It is also interesting to note his careful use of mechanized equipment in increasing the production of the salvage operation and yet obtaining the ultimate knowledge with the time and funds allotted. The Committee for Recovery of Archeological Remains in its January 1958 meeting discussed the usefulness of mechanized equipment in present-day archeology.

Dr. Heizer has indicated that this report will be printed in the University of California Archaeological Survey's Reports and with this letter of acceptance we grant the University permission to publish the material.

We wish to take this opportunity to express to the University of California and to the Archaeological Survey our appreciation for their splendid cooperation and assistance in the Archeological Salvage Program.

Sincerely yours,

Lawrence C. Merriam
Regional Director

Copy to: Robert F. Heizer

Foreword

R. F. Heizer

This report is another result of the long-standing cooperation between the U. S. National Park Service and the University of California in a program of archaeological salvage of dam areas scheduled for destruction in California. It is to be expected that an expansion of population and the consequent need for the conservation of water resources lead to a reduction of potentially rich areas of archaeological investigation. In the present report it is evident that Dr. Treganza has not encountered what might be called a "rich" area. This may partly be due to destruction previous to his excavation or, alternatively, to the fact that the Trinity River region was too detached from the well-endowed cultures to the west and southeast, i.e., the northwest coast of California and the upper Sacramento Valley, to be able to display, especially in prehistoric context, anything but a pale reflection of these richer cultures. Whatever the case, this report has brought together what is thought to be all of the essential evidence that can now be obtained on the aboriginal occupation of the Trinity River region. The details of the picture of an extremely simple economy, based primarily on hunting and fishing, which Dr. Treganza here sets forth, come as close to reconstructing the true aboriginal situation as is possible with the amount of data with which he necessarily had to deal.

Preface

The author wishes to express his appreciation to the archaeological crew for their labor and suggestions during this project: James Nichols, Gordon Cave, Thomas Thorp, James Davis, Harland Kinsey, John White, Leonard Valdivia and Donald Grisez. Special thanks are extended to Martin Heicksen for his excellent mapping work and to Allen Cornish and Dr. William Hohenthal for the use of their automotive equipment during the time of excavation.

Gratitude is also extended to the following: Dr. Robert F. Heizer and Mr. Albert B. Elsasser of the University of California for field supervision; Mr. Paul Schumacher of the National Park Service for numerous aids; Mr. M. F. Barkhouse, Jr., of the U. S. Dept. of the Interior, Bureau of Reclamation, for his aid on maps and aerial photographs; Frank and Bernard Pierce for aid and provision of living quarters in the field for the crew, as well as for granting permission to excavate on their property; and to John Neilson, of Redding, California, for permission to excavate on his property.

The following residents of Trinity Center were ever-helpful and hospitable to the entire crew: the Gordon McKenzies, the Ellis Rogers, the Marion Dickys, the Richard Hamiltons, the William Fosters, and the Raymond Jacksons. In our earlier survey the Robert Greeneisens, now of Redding, were most helpful.

Introduction

The exploratory work for this project was carried out as early as the summer of 1952 and presented in a report to the National Park Service under the title, "The Archaeological Resources of Seven Reservoir Areas in Central and Northern California" (Treganza, n.d.).

In June and July of 1953, as recommended in the report on the original survey, excavations were conducted in the Nimbus and Redbank Reservoir areas. The results of the two investigations were published in the report "Salvage Archaeology in Nimbus and Redbank Reservoir Areas, Central California" (Treganza, 1954).

Though recommendations were made in the former report for a continued program of exploration in the other five reservoir areas, no program was put into operation until work began on the Trinity River during the summer of 1957. The prolonged delay between the time of survey and actual excavation proved costly in the loss of archaeological data, all of which would certainly have been useful for a more detailed reconstruction of the prehistoric culture of the area than can here be presented.

It should be noted here that unless an archaeological salvage program is put into operation some years prior to any dam construction activities, loss of important historic and prehistoric data may be expected. A section of this report is devoted to description of such losses at the Trinity Reservoir area.

We may assume that similar processes of destruction were operative at Nimbus Reservoir and at the Coyote Valley Reservoir in Mendocino County, though in these places the total destruction may not have been so great as at the Trinity Project area.

Originally it was recommended (Treganza, n.d.) that three seasons be devoted to the investigation of that part of the Trinity Reservoir area which was to be inundated. The excavation schedule was as follows: 1954, sites Tri-8, 11, 18; 1955, sites Tri-45, 47, 49, 58, 112; 1956, sites Tri-51, 52, 57. In the event that only a single season's work could be realized, the following sites were recommended for examination: Tri-18, 47 and 58.

Since a period of five years had elapsed from the time of the original survey and the projected excavation in 1957, it was deemed necessary to recheck the primary field resources before submitting a specific plan of operation. Accordingly, Paul Schumacher, of the National Park Service, and the author visited the Trinity Reservoir area for a rapid reconnaissance in May, 1957. Following this visit it was reported in a letter to the National Park Service that the following sites had been completely or

partially destroyed: Tri-8, 11, 18, 51, 55. As a consequence it was recommended that for the 1957 season sites Tri-47, 49, 55 and 58 be excavated. The latter recommendation received approval from the Park Service and sample excavations were completed on these sites in the summer of 1957, with the results being presented in this report.

The region involved lies wholly within the area occupied aboriginally by the Upper Trinity Wintu (Du Bois, 1935, Map 1) and, like the Hayfork area immediately to the south, it is lacking in adequate ethnographic documentation. Fuller ethnographic data are available for the main Valley Wintun group extending south to Suisun Bay (cf. Goldschmidt, 1951; Kroeber, 1932; McKern, 1922, 1923; Merriam, 1955, 1957). Nevertheless early White settling of the western portion of the Sacramento Valley and pressure on the hill people by gold seekers resulted in practical disappearance of the native peoples.

Specific references to the Upper Trinity Wintu by Du Bois (op. cit.) are casual and Kroeber (1925, p. 356) mentions but a single village site, that of Tayammorel at Trinity Center. The latter site could never be located in our survey and it is assumed it was destroyed by mining activities.

Furthermore, neither our survey nor any excavation revealed information which would suggest any great antiquity of man in this area. The Trinity gold miners, as contrasted with those of the middle 1800's in the "Mother Lode" region of the Sierra Nevada, made no claims to discoveries comparable to that of the Calaveras skull, for example (Heizer, 1948). The material contents of the archaeological sites as they are known thus far permit only a guess date for the pre-Columbian occupation of this area as around 900 A.D., or later.

So closely do the archaeological data correspond to the limited ethnographic descriptions that frequent reference will be made to the one account of this area by Du Bois (op. cit.).

A total of 234 artifacts was collected from all sites excavated. These specimens are now deposited in the University of California Museum of Anthropology and are there entered under the catalog numbers UCMA 1-146690 to 1-146924. Human skeletal remains, such as they were, have been cataloged under the numbers UCMA 12-19401 to 12-19405. All photographs and negatives have been placed in the files of the University of California Archaeological Survey.

General Ethnographic and Archaeological Notes

So little is known of the Wintu material culture in general, and specifically that of the Trinity Wintu, that all observations are worth some comment. As indicated, the archaeology of this area as we have come to know it discloses a culture so late in time that it can probably be safely equated with that of the late prehistoric and historic Indians occupying the Upper Trinity River.

For purposes of completeness some notes will be included here from the 1952 survey, since the results of that early work have never been published. The original project covered the Lewiston, Mooney Gulch and Trinity Dam sites and since they are contiguous areas in that order, from south to north, the three regions were viewed as a single drainage unit. In order to cover the area fully our survey was extended beyond the zone of expected inundation above and below the dams, and up the tributaries of the Trinity River. As set in 1952, the maximum high water pool levels for the Lewiston and Trinity Reservoirs were respectively 1942 and 2334 feet above sea level. These elevations are well within the range of the Transitional Life Zone (Grinnell, 1935) which is marked here by the presence of several species of California oaks as well as a variety of coniferous trees. In many places solid blocks of fir, pine, and cedar predominate and appear to be gradually encroaching on the more open oak country. To what extent the vegetational pattern originally was related to locations of aboriginal sites could not be fully determined, although it was noted that villages of any size tend not to occur within the dense stands of the older conifers. Noted occasionally was the recent advance of pine on older village sites, thereby making site recognition difficult, since the rotten pine needles may emulate both the texture and dark color of aboriginal habitation debris. At times it was not possible to make positive site identification unless obsidian flakes, cracked cooking stones, or housepits were present. Our survey recorded 120 village sites for the region as defined--the location of most of these sites is shown on Map 5.

According to aboriginal standards the Trinity area lacked little in the way of subsistence facilities, even for year-round habitation. From about Trinity Center south (i.e., down river) winters are mild; the older residents of the region today state that some winters are snowless. In any case the usual snowstorms do not produce an all-winter blanketing. Snow melt and rainfall provide sufficient run-off to maintain a summer flow in even the smaller tributary creeks of the Trinity River.

The annual runs of salmon and steelhead are of great intensity and long duration; trout are to be found in the main river as well as its smaller streams, and even the large sturgeon has been reported in the upper reaches of the Trinity River.

The mammal population today is still relatively abundant and may reflect conditions in aboriginal times. This is perhaps due to the close proximity of what has been designated recently as the "Trinity-Salmon Alps Primitive Area." Bears frequent the valley and hill areas, especially during the apple and salmon seasons. Raccoons may be even more abundant today than when the Indians occupied the area. Black-tail deer are permanent summer residents; carnivores, such as mountain lions, which prey upon the deer are said to be in near ecological balance with the latter.

Migratory water fowl, though occasional visitors, were evidently never important to the Indians of this area. Mergansers, in groups, as well as kingfishers, are seen frequently along the river, preying upon the fish. Raptors, seed-eaters and insectivores abound along the river canyon. Occasionally the now-rare blue grouse and the pileated woodpeckers are seen.

Geologically, the Trinity-Salmon mountains and their drainage system have been carved out of a sedimentary series typical of the northern Coast Range of California. Intrusive volcanic formations are less apparent but do occur in the higher elevations. Pleistocene glaciation has produced the rugged, saw-tooth sculpturing in elevations above 5000 feet, and tarns and morainal lakes are everywhere present. These features of the higher elevations have, however, little affected the aboriginal settlement pattern, since most of the villages have followed along the main drainage in the lower elevations.

The erosion cycle is still youthful, and anything approximating a broad valley is absent. Only at the junction of East Fork with the main Trinity River is there flat land of any extent to be observed. Mostly the mountain slopes contact the river at abrupt angles and what river bottom-land exists is subject to winter inundation. This phenomenon placed some limitation on available places where permanent villages could be located.

Our survey indicated that several natural factors influenced the selection of a location for a village or camp site. Here, as in the Lower Trinity and Klamath drainage, salmon and steelhead fishing apparently was a primary factor in the food economy, hence a near-river location unquestionably was a first consideration. Of importance were places along the main river where natural narrows occurred and fish might be netted, or flat shallow riffles where fish spawned and could be easily speared. The precise location of the village in reference to the fishing spot was generally determined by the local physiography. Most frequently sought were spots which obviously provided maximum exposure to winter sunshine and at the same time protection from wind. Sites were often found on ancient river terraces which are well above the high-water level. Almost without exception, where a tributary stream large enough to accommodate spawning of steelhead entered the main Trinity River a village site could be expected. If the terrain at the immediate confluence of the streams were not suitable, a site could be expected to be found anywhere from a few hundred yards to a mile or so up the tributary.

Exceptions to this settlement pattern require some special explanation. Some sites were found in shaded areas where winter frost and snow would be excessive. It is assumed that these must be summer camps and that the shade thus was a factor for selection. Site Tri-46, just above site Tri-47 (see Map 5), is a good illustration. Though subject to obliteration in winter flooding, temporary summer sites nevertheless must have been maintained in the sandy, pine covered river flats. An occasional site was also noted near an active or former spring location. Sites around Tri-57 are of the latter type. The hill land has not been adequately surveyed but where sites have been noted they are generally small and probably represent deer-hunting camps or acorn-gathering spots and are doubtless the result of short stays by small bands of people (see also p. 8). A similar scarcity of apparently heavily occupied hill sites may be observed in the Eel River drainage to the south where, among the Yuki, virtual confinement to the lower land was a common practice and hillsides with coniferous growth evidently were avoided (Treganza, 1950, p. 114). This pattern seems to hold also in Hupa and Yurok territory where river-bank occupation is reported to be almost exclusive and the hinterland is practically tabu for occupational purposes.

Some data collected by the author from local Indian informants, Jess Miller and Ida Lachuga, who live on East Fork, indicate that now and then during the summer and frequently during fish runs small camps were maintained along the main river, but in most cases the permanent village would be at the mouth of some gulch where water was better to drink. This information is supported by our archaeological findings, especially where our larger sites are concerned.

The following comments are made with Du Bois' (op. cit.) observations as direct background and are meant to refer as closely as possible to the Upper Trinity Wintu. Where local data are lacking parallels may be inferred by reference to Du Bois' description of some other hill-dwelling Wintu group.

Ethnogeography. It will be noted later that there is archaeological evidence of some cultural influences moving up the Trinity River and passing over the mountains to reach the upper Sacramento Valley. The route suggested is up the Trinity to a point near Lewiston, over Buckhorn summit and down Willow Creek to below French Gulch on Clear Creek and on to the Sacramento River just below Redding. In this connection Du Bois (op. cit., p. 7) refers to the Indian village of Klabalpom near French Gulch: "Since the appearance of the Whites, this valley has been little inhabited by the Indians. . . . There is reported to have been an Indian trail leading from Clear Creek valley over the mountains to Lewiston valley, which approximately marked the southern end of the Upper Trinity sub-area."

Also (op. cit.) the Upper Trinity (Nomsus, west-dwelling) is described: "This valley formed by the Trinity River and the East Fork of the Trinity. After the two streams join below Trinity Center the valley narrows and extends southward to Lewiston which marks the southern end of the range of Upper Trinity Wintu. . . . The Upper Trinity Wintu traveled chiefly north

and south along their valley. In the north they had contacts to the east with the Upper Sacramento people. . . . "

Hunting, fishing, and their relation to the midden deposit. In the 1957 excavation the near total absence of food-animal bone in site association has been noted. This cannot be attributed to the lack of hunting in the aboriginal economy since the practice is indicated in the ethnographic accounts and furthermore the great quantity of arrow heads recovered would attest to a hunting complex. It is known that soil of sites located in areas of coniferous tree growth may cause disintegration of bone material through acidic leaching. There is, however, conflicting evidence on this point. For example, if acidic soil, with the acid content derived from conifers, is the factor, then there remains the question of why human bone and shell are preserved when all other bone is lacking. Besides, some sites, like Tri-58, have an oak covering and also lack bone. Again, the Wintu site of Teh-58 at Red Bluff had no heavy vegetational association and it also lacked animal bone in the midden.

Another possibility is that those people keeping village dogs left in their midden record little or no evidence of bone refuse. The lack of bone refuse may be observed even today, for example, in any small Mexican village, where the dogs are kept but are forced to fend for themselves in the way of diet. The Wintu are reported to have had dogs, and the training and even the appearance of such dogs are noted in Du Bois (op. cit., p. 11).

The following might account for the paucity of some deer bone, at least in the midden debris: ". . . heads roasted separately . . . remains were covered with rocks . . . lower jaw of skull was cleaned and hung in a tree to attract more deer" (ibid., p. 9). This is similar to the Yurok practice of placing deer remains on a hillside adjacent to the village, or the ceremonial burial of sea lion skulls as described by Heizer (1951) for the prehistoric Yurok of Trinidad Bay.

Finally, there is a possible explanation in the observation that here, as in other places (cf. Sapir and Spier, 1943, p. 252), various bones were pounded to a powder and eaten. The 1957 excavation provided no information on how the fish were taken, nor were any fish remains encountered in the midden deposit. Du Bois (op. cit., p. 16) notes, confirming this, that "The heads, guts, tails and bones [of fish] were dried and pounded into a fine flour for winter use."

It is clear, then, that explanations for the dearth of animal bone in the midden are not lacking. Probably a consideration of all the factors operating in varying degrees and perhaps at different times would best provide the answer to this problem.

One additional point which perhaps is best included in this section of the report concerns the spawning areas of the salmon. Du Bois reports (op. cit., p. 15): "The salmon were usually four years old, but sometimes the

two-year old males called grills mounted the river. In the upper reaches of the Trinity river, steelhead replaced the salmon of the other two major Wintu streams." This statement must be based on an informant misunderstanding, for by the middle of October and for some time after the Upper Trinity functions as the main spawning area for salmon. Steelhead start spawning in late January through February and then generally in the smaller tributaries.

Acorns. "Acorns were stored in bark-lined pits" (*ibid.*, p. 18). In our excavations we observed two types of storage pits, stone-lined and plain. The first are composed of large river cobbles arranged in a rectangular form and occur as single or double pits (Pl. 1c-d; Fig. 1b). The depressions extend about 12 inches into the sub-mound. No evidence of lining of plant material, e.g., or superstructure was observed above the base of the midden. Nevertheless a pit this size could easily have served as an acorn granary. Smith and Weymouth (1952, p. 7) observed similar pits for the McCloud River Wintu. All the pits found by us were cleaned out to the bottom since they could not be distinguished from burial pits on first sight (Pl. 1a).

Projectile points. The majority of the points were made of obsidian. Du Bois (*op. cit.*, p. 22), speaking of a particularly outstanding craftsman from the upper Sacramento region, found that he obtained his obsidian from Glass Mountain but went to the Trinity Mountains to get red and blue material. The latter was probably the Franciscan chert typical of the Coast Ranges. On the coast and in the interior north of San Francisco Bay chert prevails as the most preferred material for the manufacture of arrow points (Treganza, et al., 1950; Heizer and Mills, 1952; Meighan, 1955). Chert is far more difficult to work but is easily obtainable throughout the entire area in the form of float, except in the volcanic regions of Lake County where the obsidian locally predominates. In the immediate area of the Upper Trinity Wintu both good chert and obsidian are lacking as natural resources. Lassen, Shasta and Modoc Counties therefore probably must have provided the bulk of the obsidian for the finished projectile points. Du Bois (*op. cit.*, p. 25) reports that when obsidian was traded it was generally for objects of considerable value, such as bows, arrows and quivers. No quantitative or qualitative equivalents were determined. Our recovery of large chunks of obsidian may represent trade material. Burial 2, site Tri-58, for example, contained about two pounds of chunks of obsidian ranging in size from 2 inches to 5 inches in diameter. The word "chunk" is used here to distinguish these pieces from small flakes or discarded cores resulting from the manufacture of projectile points. The chunks, as judged by their grain, represent selected material which could easily have been used in the manufacture of many small points and scrapers. Thousands of minute flakes in village association attest to local production of such implements.

Villages. Most of the sites in the Upper Trinity are classed as small villages; they are recorded as such but were not marked for excavation in 1952. Du Bois' observations are in accordance with the archaeological findings. A small village in the Bald Hills (*ibid.*, pp. 28-29) had "six bark

houses in which from thirty to fifty people lived." Apparently prolonged confinement and close living in the permanent larger winter villages brought on a refreshing exodus to the warm hills and drier spots in general. " . . . the flies and the fleas in spring were sufficiently bothersome to prompt hasty retreat to the hills as soon as the weather permitted. . . . When spring opened, Mrs. Fan said, ripening crops and unpleasantness of quarters inhabited all winter soon sent the people to nearby knolls where water was procurable . . . five or six moves were made during the season." Sites in the Trinity, such as the clustering along Squirrel Creek, i.e., Tri-18, 57 and 70 and other similar groups away from the main river, may reflect a spring or summer occupation pattern. The possibility of the occupation of several sites by the same group in an area should be kept in mind where population studies based on site frequency are being attempted.

Related directly to our area and to problems for the second season of excavation (1958), Du Bois (op. cit., p. 33) notes, "Lakeris was a chief near the present site of Trinity Center. He was described by an upper Sacramento informant as a sub-chief under Sunusa. . . . Lahikalal (Jim Feder) was the chief on the East Fork of the Trinity River and was known principally for his purchase of the 'big head' dance from the Wintu to the south and its introduction into this area. Jim Feder had an earth lodge built for holding the 'big head' ceremonies. Bear Tom assisted him in the purchase of the dance." Almost absent from our survey of the Upper Trinity were visible depressions suggesting the former presence of the larger semi-subterranean sweat houses or dance houses characteristic of Central California. The only two occurrences noted were at the historic sites Tri-45, a sweat house, and Tri-112, a dance house. Both are scheduled for excavation in 1958.

The suggested relative recency of the Wintu occupation of the Upper Trinity finds support in the fact that the remains of ceremonial structures are but rarely found and that some of the ceremonies which might be staged in such structures were in any case imported, according to record, from the south, as late as 1880. The dance house said to have been built by Jim Feder (above) is probably that observed at Tri-112. It is of the circular surface level rather than the semi-subterranean type. Du Bois (op. cit., p. 122) is probably referring also to Tri-112 when she reports, "Dream dance house--Large structure, round or square; built of boards, only slightly banked with earth; shingle roof; Euro-American door. Used for recent cult dances; never for sweating or gathering place for men. Said to accommodate from 200 to 300 people. Measurements of dance house for Big Head cult in Upper Trinity: diameter 39 feet; 4 center poles, ca. 11 to 12 feet high, squared upright timbers ca. 7 feet high set side by side around circumference; earth slightly banked around exterior wall; no corridor entrance." Little surface evidence is left of this structure but such as does remain is in agreement with the above description. The 1958 excavation and additional data provided by local informants may result in more specific and positive identification. Ida Lachuga, local Wintun, informed the present author in 1957 that she had danced in the structure when she was a young girl. No further information was obtained.

Steam sudatory. Du Bois (op. cit., p. 123; Pl. 1d): "Domical brush shelter; ca. 5 feet high; 4 feet or more in diameter. Poles of frame 1/2 inch to 1 inch in diameter thrust in ground every 12 to 18 inches; bent in toward center; tips lashed together. Covered with brush. Hot stones in center on which water was poured. Chiefly for cleansing; minor uses: lustration for bad luck in hunting, menstrual contamination; therapeutic, with occasional blood-letting . . ." House site No. 3 (Pl. 2c, this report) at the Frank Pierce site, Tri-58, must have been similar to that described and illustrated by Du Bois. Figure 2a is a suggested reconstruction following the ethnographic description and the archaeological data.

The local sweat house marked by the U. S. Forest Service as "Wintoon Steam Pit" is recorded as our archaeological site Tri-45. Its present appearance is that of a large ruined semi-subterranean sweat house, of the type characteristic of Central California.

In speaking of the nearby Achomawi, Kroeber (1925, p. 312) observes two types: (1) The "sweat house" which was dug out about a yard [deep]; some villages contained more than one of these large structures. (2) "In the recent period the Achomawi used the small steam-heated sweat house of the Plains. It came to them from the Klamath and Modoc who in turn perhaps derived it from the Warm Springs and Umatilla groups farther north." The latter would also be the same as Du Bois' sudatory and our House No. 3, Tri-58.

Post-Indian Alteration of the Landscape and Destruction of Aboriginal Sites

In 1952 a report was made, as follows, concerning the Trinity Reservoir area (Treganza, n.d.): "Destruction of aboriginal sites may be attributed to three factors; placer-mining, land-leveling for agricultural purposes, and the more recent lumbering activities where heavy equipment is used in road building and log removal.

"The auriferous gravels of the Trinity became known shortly following the discoveries of the Sierra 'Mother Lode.' Working with a variety of simple hand techniques, the early miners were forced . . . to confine their activities to the shallow deposits of the lateral gulches and small creeks entering the main Trinity river. It was at the mouth of these small creeks where most of our archaeological sites were located, and without a doubt a considerable loss [of the latter] must have occurred. Hydraulic mining, though it has stripped bare many areas and created erosion problems, probably had little effect on aboriginal sites for most of this work was confined to ancient channel deposits high upon the hillsides.

"The most consistent destructive agent has been that of the more recent deep-channel gold dredge. During our survey we had the . . . experi-

ence [of observing] the buckets of a large dredge systematically destroy an archaeological site (Tri-12). On the East Fork of the Stewart Fork, at the location of an abandoned dredge, we encountered another site, Tri-39, which was partially destroyed and would have been completely so had operations [by the dredge] not ceased. Additional sites known to have been destroyed by gold dredges are Tri-15, 16, 35 and 48. Probably more could be added to this list were information available.

"Land leveling has taken some toll of sites but road building for lumber activities has been most destructive. Almost every small canyon has been or will be entered by large tractors engaged in clearing the way for rough log transport. The following sites have been destroyed or disturbed to such an extent that they could not be expected any longer to yield useful data: Tri-23, 24, 37, 55, 83, 101, 104 and 112."

As stated above, a resurvey was made in 1957 by Treganza and Schumacher, who discovered that the following sites had been either totally destroyed or further damaged since 1952: Tri-2, 6, 8, 11, 18, 25, 28, 51 and 55. The destructive agency this time was almost exclusively construction projects related to the Trinity Reservoir program. Actual dam construction, temporary structures above the dam areas, and mass alteration of the landscape below the reservoir for temporary housing projects took a heavy toll of archaeological sites. Furthermore, the loss of sites and consequent data will continue at an even more rapid pace now that land settlements are being made. Some local residents with deep attachment to their home soil have had a loss of spirit and have developed a phlegmatic outlook toward this encroachment of "progress" on their former isolation. Such persons are not at all interested in preserving sites of archaeological value, or even in notifying the proper authorities when they know that a site is being destroyed. Worse are "fly-by-night" small lumber companies looking for a quick profit and possessed of a total disregard for any aspect of conservation whether it be of natural resources or archaeological sites. These essentially negative attitudes of the local land owner and the commercially minded outsider begin to arise almost as soon as any area has been officially approved as a definite reservoir site.

To some degree there seems to be a breakdown in the line of communication between various government agencies. For example, Tri-18, at the mouth of Papoose Gulch, was selected in 1952 as the most important site for excavation in the Trinity area. At that time, according to the information given our survey party, the region occupied by this site was to be affected by the reservoir spillway. Later, however, and unknown either to the National Park Service or the University of California, plans were changed; when Schumacher and the author visited the area in 1957 the latter was surprised to find that the dam site had been moved to a point below Papoose Gulch and that a good portion of site Tri-18 had been directly in line with the already finished diversion tunnel of the project. The only detectable part of the archaeological site that remained was a small portion under the old Blakemore log house which occupied the center of the habitation area. Regardless of the change of plans, the site would

have been lost to us because of the lag between the time recommended for excavation and approval of appropriations for the National Park Service to carry out the recommendations. Concern about the possibility of archaeological loss is a matter of record as reported in the survey report of 1952 (Treganza, n.d.). In that report a list of sites, based upon the imminence of their destruction by work on the proposed reservoirs, was given, with the warning that any site at this time might be subject to destruction through lumbering activities. "This industry will continue to develop, especially within the area to be flooded, since attempts are being made to salvage all available timber resources."

Sites Tri-55 and 112, as indicated above had, even in 1952, been listed as destroyed to the point where they could no longer reveal useful data. However, some revision in the original recommendation has been made since the 1952 survey. For example, site Tri-55 was more extensive than originally determined, since a large portion of the site was covered with vegetation debris before or during 1952. Since then both a lumber and dredge road exposed new portions of the site, leaving a fair remnant for sampling which, though quite negative, was made in 1957. The results of the excavation are presented below. Site Tri-112 is the historic dance site near the junction of the Delta and French Gulch roads near East Fork. Almost all the wooden remains were gone when the site was visited in 1952, and since that time further destruction has taken place, extending to the sub-surface portion, as bulldozers and lumber trucks have used this area for a parking place. As this is the only known Wintu dance house of any type for the Upper Trinity group, it was felt in 1957 that some attempt should be made to salvage what little remained of the physical features of the dance house, to check its dimensions, and to supplement this information with any that could be derived from local informants. The site has accordingly been listed for examination during the 1958 season.

A current problem, now that the land is being purchased by the U. S. government, involves the desecration of known Indian graves by various persons who are searching for "Indian treasures" which are commonly believed in almost every rural community to accompany the bodies of long-dead Indians.

Procedure in Excavations

The 1957 excavation project was directed toward salvaging maximum information on all phases of aboriginal life within the time and financial limits which were set for us by the National Park Service and the University of California. Unless specifically required, in exposures of such elements as burials, house floors or features, the more refined and time-consuming archaeological techniques were abandoned in favor of coarser methods. In most cases shovel recovery of artifacts had to be

relied upon over screens in the examination of the several midden masses. Some control sampling was done for the purpose of checking the effectiveness of the shovel technique (see Map 4).

In all sites the various profiles of deposit cuts seemed of little stratigraphic significance and for this reason individual artifacts were recorded generally by grid and within 6 inch levels. Exact horizontal locations within grids and specific depths were taken only where some special feature was involved.

A ten-foot grid system was used throughout the excavations. The particular grid portions selected for excavation were determined largely by all or some of the following: the absence of large tree roots; the presence of surface features such as house pits; color of deposit; and finally, the greatest expected depth of deposit.

Of primary concern was the location of cemeteries, since they usually reveal maximum data relating to chronological and other associations of artifacts. The chief problem was to discover the exact location of any cemeteries since it was the practice of the Wintu to bury on the periphery of the habitation site or within a short distance of the village. Experience at Red Bluff (Treganza, 1954) indicated that a sample taken from the so-called "living" portion of the village provided but a poor index to the cultural inventory of a site, compared with what could be had when a cemetery was discovered. At Red Bluff the excavators were fortunate in the accidental discovery of the burial ground which had been revealed through the activity of ground squirrels. At the Trinity River sites no such help was forthcoming, hence in the efforts to discover the locations of cemeteries a type D-7 bulldozer was employed. Although even this device failed, the use of such heavy equipment is hereby highly recommended for salvage archaeology. Evidently results would be much more encouraging in more favorable areas, i.e., in sites where cemeteries might be reasonably close to the centers of occupation deposits.

The bulldozer was used on three of the sites. Maps 2 and 4 below indicate the wide range of sub-surface sampling obtainable with mechanized equipment, as opposed to earth removal through hand techniques. Though we located no cemetery with the bulldozer, the negative evidence provided in this matter will certainly prove helpful in future excavations, in this area at least. Operating expenses of mechanical equipment, though they appear high, turn out to be comparatively low when one considers the cost in man-hours to accomplish the same removal of occupation soil, especially in those deposits which may be suspected to be sparsely yielding of artifacts. In the case of Tri-58 (Map 4), which is a large site, it would have been impossible, or at least highly unfeasible, to obtain the sample we did without the use of mechanized equipment.

Probably the greatest tangible value in the use of earth-moving equipment in an archaeological program is that within a matter of minutes primary cuts may be made, thus providing data on such items, besides cemetery

locations, as depth of deposit, nature of profiles, and location of living and cooking areas. Almost immediately knowledge of the sub-surface is obtained which, under ordinary circumstances, might take days or even weeks to acquire. This makes possible the formulation of a quick and efficient plan of excavation.

The loss and destruction of artifactual material are always risks which must be faced when machinery is used, but even these may be held to a minimum through the agency of a good machine operator and an alert observant crew, carefully following the powerful cuts of the machine.

Discussion of Projectile Points Recovered

Individual types of projectile points will be described as they occur in association with various sites. First, however, a general discussion of these artifacts seems appropriate. An attempt is made here logically to group a number of similar types together and to give them a geographical provenience name. Enough controlled work has been done in Northern California to permit some speculation on the cultural significance of certain discrete types of points.

As Baumhoff (1957, p. 10) notes, projectile points ordinarily are recovered in more abundance in California midden deposits than any other type of artifact, and they may also provide a useful chronological key. More than that, we may ultimately distinguish among them regional types which are indicative of cultural hearths and from those might be traced subsequent patterns of diffusion.

Any attempt at classification, whether it be of designs on pottery or projectile points, is subject to a number of pitfalls. The chief danger perhaps is that of preoccupation with mechanical arrangement rather than with the true purpose or goal of the classification, which is to apprehend, in the case of archaeological materials, significant cultural differences, i.e., differences which are based on traditional modes of thought or action at specific times and places, rather than on personal idiosyncrasy.

A number-letter designation of projectile points may be adequate for a general classification of a large number of points, but when all points in North America, for example, are thus typed, the observation of significant differences or relationships between the types tends to become blurred.

Perhaps a more meaningful way to express cultural relationship is to identify certain point types and their close variants with some specific geographic region or place name. This becomes possible only after the artifact types, their centers of high frequency, and distribution over a large area are well known. Thus, geographical type naming should be associated with the mature phases of archaeology and not with the beginning, otherwise

there may be brought into being a welter of meaningless new name-types. The term "Folsom," for example, when used correctly, has now come to mean not only a specific cultural item but one which has both geographic and temporal significance. Less spectacular, but with potentially just as much import, are other named and as yet un-named point types.

Recently, referring to the desert portions of the western United States, Baumhoff (*op. cit.*) has suggested the term "Desert side-notched" to describe a small arrow point type which is basically triangular and has lateral notches near the base. The form of the base below the notches varies, allowing for several sub-types. Their distribution apparently extends from the desert of Baja California to eastern Oregon, through most of the Great Basin to the east and into the Central Valley of California to the west. Chronologically, these points seem to occur only in the late prehistoric and historic periods, in Central California, for example.

Work in Northern California and southern Oregon has revealed the presence of another type of point which appears to hold a definite regional distribution and to occur during a definite time span. For these reasons a type name will here be suggested: "Gunther barbed." Basically, the form of this point type is triangular. It has a definite stem, of variant forms (see Fig. 1q), and has characteristic long barbs or tangs, the result of basal notching, and the tangs often exceed the length of the stem formed by such notching. It has previously been referred to under various terms, for example, following the Strong (1935) classification, it has been given the class designation of "SAa," "SAb," and "SB" by Treganza (1954), and Smith and Weymouth (1952). Wallace (1952) and Baumhoff (1957) refer to the type in general as "tapering stem points." Cressman (1942, Fig. 38:1) illustrates some of the various forms of this type from Roaring Springs Cave and recognizes them as constituting a type with stem and tang variants.

In its "classic" form the type appears as a long thin triangle with tangs of exaggerated length and a short tapering stem. It was first illustrated by Schumacher (1877) but its recognition as a distinct point type with variations was made by Loud (1918, see Pl. 15, Figs. 4, 6, 7, 8) who worked in the Wiyot territory of Northwestern California. The classic form has also been illustrated by Berreman (1944, Pl. 72), Treganza (1950, Pl. 12f), Heizer and Mills (1952, Fig. 1a), Smith and Weymouth (1952, Fig. 2, type SAb), and Wallace (1952, Pl. 1a).

Distribution of the type appears centered along the northwest coast of California. It extends north into Oregon and west to the interior of Northern California where it was frequent in the Yuki area of Round Valley (Treganza, *et al.*, 1950). The path of its diffusion to Round Valley apparently had been up the Eel River from Humboldt Bay. It should be noted, however, that to the south, in Mendocino County, near Willits, Meighan (1955) found no examples of the type. Throughout most of the Central Valley the type is relatively rare, although recently this type of point has been recovered in some quantity at a site near the confluence of the Feather and Sacramento Rivers (personal communication from F. A. Riddell). The type is rare,

if not absent, along the central as well as the southern coast of California. In Northern California it becomes less common toward the crest of the Sierra-Cascade ranges, here evidently giving way to the "Desert side-notched" forms of the Great Basin. Data for Oregon are still lacking from the central coast north, and how far the type extends beyond the Roaring Springs Cave region in the southeast is not known. The distribution through Oregon to the Columbia River is probably continuous, for there is no doubt that the type is common for the middle Columbia. Strong, Schenck, and Steward (1930, p. 80; Pl. 14a-n; Pl. 15a-x) find this to be their most frequent type in the Dalles-Deschutes region, especially at the Wakemap mound. These authors remark (*ibid.*, p. 80): "The presence of stems correlated to a high degree with small size is the most important characteristic of our flint points. There remains some question whether the shape of the stem or the presence of a shoulder or barb should be chosen for a secondary classification." In form the type also occurs around the mouths of the Columbia and Fraser Rivers and on the San Juan Islands (King, 1950, Fig. 9; Smith, 1950, Table 2, Fig. 2). However, in these places the material is predominantly basalt and the points are larger and coarser in manufacture.

In summation it can be said that, as a regional type, the point occurs from the mouth of the Frazer River south to northwestern California, thence inland as far as the western margins of the Plateau and northern Great Basin. The greatest frequency of occurrence is in southern Oregon and northwestern California. Chronologically, in all these regions it appears, like the Desert side-notched point, to be associated with the late prehistoric or historic periods.

It seems fitting that the designation of this point type should reflect the efforts of one of California's pioneer archaeologists, L. L. Loud. It was suggested accordingly by Dr. R. F. Heizer that we adopt the term "Gunther" as part of the designation for this long-tanged (barbed) projectile point. This name refers to Gunther Island, in Humboldt Bay, near Eureka, California. From a site on this island and from other sites in the same area, Loud (1918) noted the occurrence of this projectile point type, referring specifically to points with "extra long barbs and serrated edges."

Few places in California consistently produce such small arrow points as were collected in the Upper Trinity River sites in 1957. The smallest point recorded weighed only .3 gram and a group of 70 points had an average weight of only one gram each.

Frequently a small thin percussion or pressure flake, even though it was naturally curved in its long dimension, was slightly modified into a projectile point. Such points could have been made in a matter of minutes and they also indicate resourcefulness in the utilization of limited resources.

It is suggested here that the light points recovered in the excavation were not necessarily used for small game, but rather for penetration of large game, such as deer. When it is considered that in many parts of California wooden foreshafts only, without stone points, were used on arrows,

presumably for small game, it is not difficult to conceive of the small stone points as being manufactured for another purpose. A missed target by an arrow pointed with obsidian would undoubtedly often result in a broken tip, hence it is not likely that relatively valuable stone points would be risked on such small targets as birds or rabbits. On the other hand, a fairly large number of points were recovered with broken ends, and some of these show a reworked tip. As to the efficacy of small points used against large game, it may be pointed out that so long as a hunter can penetrate the skin of the animal enough to produce internal bleeding, he may expect, with some patience, to be successful in his kill. Certainly the Indians, unlike modern hunters with firearms, could not expect a direct kill with one or at most even three shots hitting the animal.

Excavation of Sites

1. Tri-47: Hay Gulch Site

General location: Map 5.

Map of site: No. 1.

Artifacts: UCMA 1-146690 to 1-146763.

Illustrations: Fig. 1; Pls. 1a-f, 2e.

General Description

Site Tri-47, known as the Hay Gulch Site, is located in the SE 1/4 of the NW 1/4 of Sec. 5, T35N, R7W, U.S.G.S. Schell Mountain Quadrangle. Property is currently listed as belonging to the Southern Pacific Railroad Company.

Originally the site was noted for its black soil and obvious house pits. Most of the occupational debris is on the north bank of Hay Gulch where it meets the Trinity River. The opposite, or south, bank of Hay Gulch shows less evidence of occupation, probably because it was subject to winter flooding. Portions of the site have been destroyed by early placer miners, river erosion, and campers. Currently the house pits are used for refuse spots by tourists.

About 100 yards up Hay Gulch is a small site, Tri-46, which contains house pits and is known to have been occupied in historic times. Mr. Raymond Jackson, of Trinity Center, reports that in his earlier years he had observed conical bark houses still standing over the depressions. A miner's water ditch cut through a section of the site exposes little depth of deposit. The main Hay Gulch site, Tri-47, was probably occupied for a considerable time prehistorically and this smaller site may represent a retreat from Tri-47 site under the impact of the historic contact.

Plan of Excavation

Several factors determined the plan of excavation. First, it was desired to obtain a sample from the deepest part of the deposit and in an area which would cut across the greatest number of house pits. Secondly, it was necessary to excavate where it was possible to avoid trees and large roots. The sections finally selected faced the Trinity River. A map of the site, showing contours, was made and the site was partially staked out, following a ten-foot grid system. Hand shoveling, troweling, and screening were decided upon here as the best method of midden examination. The following sections were excavated from the surface of the midden deposit down to 12 inches into the sterile base of the site: 1A to 1D; 2A to 2D; 3B to 3D; 4D, and 1/3 of 4E; 5C, 5D, and 1/2 of 5E. House pits 4, 7, and 8 were also excavated.

The cultural deposit becomes deeper from north to south and from east to west. House pit 1 is depressed into the yellow soil of the river terrace and exhibits but a trace of dark habitation soil and a few obsidian flakes. Section 1E likewise shows but a thin veneer of cultural deposit. Greatest habitation depth noted was 2 feet 9 inches, in Sections 1B to 3B.

Digging started on the river bank in Sections 3E - 5E and 1D - 5D. It was possible thus to work from west to east, cross-sectioning house pits 4, 7, and 8. Also, a clean working face was kept, and the back-dirt problem was virtually eliminated (Pl. 2e).

Soil composing the site was dark, ashy, and charged with quantities of fractured cooking stone, which made shoveling impossible unless the soil was first loosened with a pick.

Frequently not observed because of their smallness were great quantities of obsidian flakes. One screening test showed about one pound of obsidian flakes to every 1/2 cubic yard of earth. This would indicate emphasis upon local manufacture of arrow points.

Totally absent was fish bone, and rare, even in burned form, was bird or mammal bone. This contrasts with most other areas of California. As indicated above, the pounding up of fish bone for human consumption has been recorded ethnographically in this area and the possibility exists that the larger mammal bone was carried off by village dogs.

Features

Storage pits: Pits both circular and sub-rectangular, unlined and rock-lined, were encountered. Some pits extended into the yellow sub-mound soil; others were constructed of stone and built right into the midden deposit. Circular pits were about 3 feet in diameter and some 2 or 3 feet deep. In cross-sectional form they resembled a large upright

conical burden basket. The portions of the pits described here are those which extend into the yellowish, sterile base. Such pits may have been grass or bark-lined and extended upward into the midden, a feature which we could not determine. Two such pits are illustrated (Pl. 1f). There appeared to be no relation between the location of storage pits and house floors. In appearance, these circular storage pits are similar to those containing burials (Pl. 1a, Burial 1).

Sub-rectangular pits lined with large flat river boulders, some weighing as much as forty pounds, were more than just casual rock cairns. They were carefully constructed, composed of selected rocks, and arranged for durability. Some had cap stones, others stone bottoms. Their function is not known, though it is guessed that some sort of fish or meat storage was involved, to provide protection against heat, flies, or the village dogs. Three such pits were examined, and the following data recorded:

Feature 1 (Pl. 1c)

Depth from surface: 24 in.

Excavation unit: 2C.

Definition: rock cairn storage pit.

Associated objects and features: composed of 4 large flat river boulders on the sides, and one flat boulder on the bottom.

Dimensions: 24 x 20 in. x 12 in. deep (interior measurement).

Stratigraphic position: bottom of feature rests firmly on the base of the culture deposit.

Additional notes: interior of pit was partly filled with fine light-colored sandy soil which probably was wind-blown.

Feature 2

Similar to Feature 1, except with cap stone.

Feature 3 (Pl. 1d)

Depth from surface: 14 in.

Excavation unit: 1B.

Horizontal location: 14 in. N and 12 in. E of corner of 1B - 1C.

Definition: rock cairn storage pit.

Associated objects and features: 4 large cobbles arranged with flat surfaces inward, forming a rectangular interior. A large flat slab placed on edge may have served as lid or formed one side of a second pit.

Dimensions: 14 x 16 in. x 11 in. deep (interior measurement).

Stratigraphic position: resting on sub-mound.

House pits: Some 8 house pits were visible on the surface. The depressions are saucer-shaped and range from 12 to 15 feet in diameter. A slight rim of dirt about 8 to 12 inches high marks the periphery and the depression at the center is not more than 2 feet 6 inches deep. None

showed any evidence of a doorway nor were any traces remaining of the super-surface structure. We had expected that excavation of some of the house pits would provide additional data as to their structure but this proved to be a vain hope. The floors, as such, were only loosely packed and could not be definitely traced out to the periphery. At the latter, no traces of post holes could be observed and it was concluded that where these features were absent the former presence of a conical bark house (see Merriam, 1955, p. 21, for a description of a bark house used by the Wintun) must be indicated. If such were the case, the siding slabs of bark presumably would not be anchored securely in the soil as would be supporting posts, for example, and would leave little or no traces after they had rotted away. Skins, mats, or pine needles must have served as a floor covering to reduce interior dust. Synoptic description of one house floor follows:

Feature 4 (Pl. 1e)

Depth from surface: 10 in.

Excavation unit: 1A and part of 2A.

Definition: house floor associated with house pit No. VIII, Map 1. No post holes were observable. Floor poorly defined and composed of a light yellow clay and gravel. Some areas are orange, probably the result of fires.

Associated objects and features: angular hopper-mortar stone (ca. 10 x 10 in. x 4 in. thick), charcoal and red cedar wood fragments near edge of house.

Additional notes: charcoal and wood may indicate former outer wall.

The houses here are probably similar to those described by Du Bois (op. cit.) and those occurring on site Tri-46 reported by Mr. R. Jackson.

Other features: Considered here are any unusual aggregates of stones or other elements atypical of the general run of midden deposit.

Feature 5

Depth from surface: 0 to 18 in.

Excavation unit: 3B.

Definition: rock concentration.

Associated objects and features: obsidian drill, 2 oz. piece of hematite, hopper-mortar stone.

Dimensions: 5 x 2 ft. x 1 ft. deep.

Burials

Only three burials were recovered and their peripheral and separated locations in the deposit certainly do not suggest a cemetery. Burial 1 (Pl. 1a) was in a definite pit which extended into the sub-mound. Burial 2 was in the dark mound mass and though considerable stone was about the skeleton no definite pit could be observed. Burial 3 was also in

the midden proper and its nearness to the surface indicated that it had been disturbed. Burial customs as expressed only by these three interments correspond generally with those of the Wintu in other areas, for example, in the Sacramento Valley. However, in addition to isolated burials such as these, a specific cemetery generally exists in the Valley and mortuary offerings with burials in cemeteries usually occur in quantity. The site of Teh-58 at Red Bluff, where over one hundred burials were recovered from a very small area within the site, provides an excellent example of the historic Wintu pattern (Treganza, 1954).

The human bone, considering its nearness to the surface, was in fair condition, but certainly would afford only scant anthropometrical data, as can be observed in the photographs of Burials 1 and 2 (Pl. 1a-b).

The burials were found as a matter of systematic sampling of the midden. Time did not permit extended exploration for a cemetery. It is possible that one exists still, closer to or just off the edge of the site which we excavated, or even on the south, or opposite, side of Hay Gulch where it enters the main Trinity River. Burial data from Tri-47 follow:

Burial 1 (Pl. 1a)

Excavation unit: 1C.
Location: 30 in. E of NW corner of Section 1C. Measurements to skull.
Depth: 4 ft. 7 in. to skull.
Condition: fair.
Age: adult.
Type of disposal: primary burial, tight flex, on right side, facing north.
Orientation: north-south (head N).
Remarks: rock concentration first noted at 6 in. Yellow sub-mound showed disturbance with burial occurring at 36 in. into sub-mound.
Artifacts: none
UCMA number: 12-9401.

Burial 2 (Pl. 1b)

Excavation unit: 5E.
Location: 5 ft. 9 in. E and 7 ft. S of NW corner of Section 5E.
Depth: 28 in. to top of skull.
Condition: fair.
Age: adult.
Type of disposal: primary burial, tight flex on right side, facing northwest.
Orientation: northeast-southwest (head SW).
Remarks: considerable stone was placed above the burial but probably not enough to allow classification as a cairn.
Associated objects: hopper-mortar and burned wood.
UCMA number: 12-9402.

Burial 3

Excavation unit: 5D.
Location: 8 ft. 12 in. S and 4 ft. E of the NW corner of
Section 5D.
Depth: 9 in.
Condition: poor, disturbed.
Type of disposal: primary burial, flexed(?)
Remarks: cause of disturbance not known.
UCMA number: 12-9403.

Chipped Stone Artifacts

Projectile points: As a group, small arrow points were the most common type of artifact in this site. All the specimens were of obsidian and represent variants of the "Gunther-barbed" type as defined in this paper (Ill. Fig. 1q).

A total of 45 projectile points were recovered, which represent five variants of the Gunther-barbed type, as follows:

1. Type in which stems are longer than the tangs (barbs); the form of the stem may be pointed, rounded, or angular, as illustrated in Fig. 1f-i (UCMA 1-146706 to 1-146727).
2. With stem-tang size relationship as above, but with serrated lateral edges as illustrated in Fig. 1j-k (UCMA 1-146728 to 1-146735).
3. Tangs on this type are ill-defined, and in some cases are little more than straight shoulders. Fig. 1 l-m (UCMA 1-146742 to 1-146744).
4. With tangs longer than stem. Fig. 1n (UCMA 1-146745, 1-146746).
5. Similar to sub-type (4) above, but with serrated lateral edges. Fig. 1o-p (UCMA 1-146747 to 1-146750).

In the illustrations referred to above Figures 1n and 1o represent the Gunther-barbed type in its classic form.

Drill: Only a single drill (UCMA 1-146752) was recovered. This is triangular in cross-section and of a type which could be used either hafted or unhafted.

Ground and Pecked Stone Artifacts

Pestles (UCMA 1-146690 to 1-146701): Pestles from this site were of the simplest sort, being nothing more than elongated stream cobbles of a weight and length convenient to hand holding. Evidently no attempt was

made by the manufacturer or user to shape the shaft through pecking. The distal or pounding end generally is flat; often several large percussion flakes are seen to have been removed from the margin through use (Fig. 1d-e). This type of pestle, which develops a flattish working end, is correlated with the flat hopper-mortar stone, hence the former presence of the bottomless hopper basket to complete the functional unit may be assumed (Fig. 2b). When a stone mortar without hopper is used the working end of the pestle generally is rounded.

Of 25 specimens excavated, only 12 were saved as sample specimens. All were of volcanic stone--granitic or basaltic.

Hopper-mortar stones: Fifteen specimens were recovered but none saved because of their bulk and lack of cultural significance in their finish. Sufficient data are already on file for this type of specimen and they would only serve, if collected, to occupy valuable museum space.

These flat, elliptical-in-outline river cobbles weigh about 12 pounds and are mostly of some tough volcanic rock, such as basalt. Generally only a slight wear pattern about 10 inches in diameter, indicates where the basket was attached. None recovered by us showed excessive wear.

Baked Clay Artifacts

Pipe: A single baked clay pipe was the only clay artifact found (UCMA ~~1-146753~~). Its form is tubular with end diameters of 35 and 20 mm. Length is 75 mm. Original modeling marks may be observed on the inner surface, hence the specimen cannot be confused with a drilled or carved pipe. The material is a clay which resembles, in its fired form, a volcanic tuff. The texture of the outer surface is unlike most fired specimens of clay and it was first thought to be a carved and drilled pipe. The form would not be out of place if found in the Central Valley of California (Fig. 1c).

2. Tri-49: Bragdon Gulch Site

General location: Map 5.
Map of site: No. 2.
Illustration: Pl. 2d.

General Description

This site, known as Bragdon Gulch, is on the John Neilsen ranch in the SW 1/4 of the NE 1/4 of Sec. 18, T35N, R7W, U.S.G.S. Schell Mountain Quadrangle.

The occupation deposit extends both east and west of the road on the north bank of Bragdon Gulch Creek. In the 1952 survey only that portion of the site east of the road was observed, as the midden deposit was exposed in the road cut and six house pits were obvious on the rising hill contours. The larger part of the site to the west was unobserved since it was in an area that had been artificially leveled and was planted in pasture. A year later, when the pasture was off, the author again looked at the site and realized the full extent of the habitation area. Later the site was recommended for excavation.

The section of the site containing the house pits reveals little depth of deposit except along the road cut. Recent lumbering activities in this area have so disturbed the surface that no attempt was made here to excavate. The larger portion of the site has been altered, as mentioned, in leveling for a pasture. The south side of this portion is terminated by Bragdon Gulch Creek and the western part has been abruptly cut off by an irrigation ditch marking the end of the pasture. It is suspected that during the original leveling of the ground much of the cultural deposit was scraped from the north side of the site toward the southwestern part.

Sections 6A, 6B, 8B, and 10B, along the west side of the site, were selected as being the least disturbed, and where the deposit looked best for excavation of the site. On the south side, near the creek, the following sections were examined: 3C, 2D, 3D, 2E. These sections failed to produce any significant artifacts or burials. As a salvage measure, controlled scraping with a bulldozer was carried out in the following sections: 5D to 16D, 6F to 14F, 6H to 12H, 6O to 11O. One cut, starting in section 3K, extended east almost to the road; some of this excavation was not included in the grid system.

It was concluded that with such a wide sample of the site now known to us there was little point in continuing work on this site. Any possible cemetery associated with the site evidently was located elsewhere and will probably have to be discovered by accident.

3. Tri-55: Robinson Bar Site

Map of site: No. 3.

General Description

This site lies mostly on the north bank of Sawmill Creek (not to be confused with the Sawmill Creek near the Foster Trinity Farms) in the NE 1/4 of the SW 1/4 of Sec. 24, T34N, R8W, U.S.G.S. Schell Mountain Quadrangle.

The site serves to illustrate almost all of the kinds of destruction that can befall an archaeological site. Sometime during the 1850's the habitation area was first attacked by miners, since under the house sites were the rich placers of Robinson Bar. The mining activity removed most of the site near the Trinity River. Next came the gold dredge of recent times, which further cut into the site. With the dredge came a road, used both for service to the dredge and for lumbering operations. Most of the remaining part of the site was bulldozed away and the deepest part of the site was used as a borrow pit for material used in road construction. A small section of undisturbed midden still remained, however (Map 3), and it was decided that this remnant might still yield some salvageable material. Apparently this was not the case for our two days' effort produced no significant artifacts. Six house pits still remain in the northwest part of the site but time did not permit an examination of this area.

4. Tri-58: Frank Pierce Site

General location: Map 5.
Map of site: No. 4.
Artifacts: UCMA 1-146764 to 1-146924.
Illustrations: Fig. 2; Pl. 2a-c.

General Description

The site, known as the Frank Pierce site, is located on the old John Linton ranch in the NW 1/2 of the SW 1/4 of Sec. 6, T35N, R8W, U.S.G.S. Schell Mountain Quadrangle. The Indian site rests upon a segment of former river terrace on the north bank of Clawton Gulch Creek, where it enters the main Trinity River.

It was reported that Linton's original barn covered the central portion of the site. Glass fragments, iron horse shoes, and other European-derived objects indicate this to be the case. Linton's first house stood on the south bank of the creek and probably occupied the small Indian village site known as Tri-59. At a later date, probably because of the inaccessibility of the house in winter, Linton moved across the Trinity River and built the structures now owned by Frank Pierce.

With the exception of site Tri-18, this was the largest and best-preserved Indian village observed in our 1952 survey.

Clearly defined house pits were not present, probably because the occupation by Linton had obliterated them. On the north hillside, where the contours rise abruptly, there was a definite depression suggesting the form of a sweat house like that of Tri-45. Some local informants thought, but were not positive, that it might have been made by Linton to be used for an ice house. A few cuts with the blade of a bulldozer

exposed no evidence of any sub-surface structure or Indian camp debris, hence the purpose of the depression remains unknown. In this case the bulldozer saved about 100 man-hours of hand excavation time.

An old road cut around the eastern and southern peripheries of the site provided a cross-section view of the midden. The soil here was very dark, ashy, loose, and contained much fire-fractured rock.

Throughout the excavation, it was kept in mind that exploration in what appears to be the most intensively used area of the midden might not be the most fruitful method for the recovery of representative artifacts. Such areas might be specialized activity areas where but a limited range of implements may be recovered. This generalization has been found to hold in at least two places previously excavated by the author: Teh-58 (Treganza, 1954, p. 5) and Sta-44 (*ibid.*, 1952, p. 17), and also provides another rationale for the use of bulldozers in salvage excavation.

This was the first site in the Trinity area where bulldozers were used as an excavating tool. Accordingly, the site was first mapped so as to make possible the exposure of long sections of deposit where a crew could start work immediately. Cuts were carefully made through the following points, as shown on Map 4: X - X₁, Y - Y₁, X - Y, Z - Z₁. During this procedure only about 3 or 4 inches of midden were removed on a single cut with the bulldozer blade. It was found that it was possible for the operator to detect soil density changes and even the slightest concentration of rock debris with the hand which controls the cutting blade. Members of the crew moved along with the machine so as to enable them to observe both the uncovered material which might pile up in front of the blade as well as that material over which the bulldozer ran but did not destroy (Pl. 2d). It was in this fashion that most of our features, house floors and burials were first detected (Pl. 2a, c).

Following these first cuts made by the bulldozer, certain areas were selected and standard hand techniques with shovel, trowel, and screen were used for refined work. A final examination, which may be referred to as "coarse stripping," was then made by the bulldozer. This was looked upon as a "last chance operation" in search of cemeteries or other gross features of the site. It is obviously a technique which should be limited strictly to salvage work, when funds and time of a given project are nearly expended. The process demolishes the site for further scientific investigation but it may be noted that here, at least, the site was already condemned to extinction through uncontrolled machinery operation and ultimately through flooding. The author regrets this procedure which, on the other hand, paradoxically, may be a recommended part of any salvage program.

The deepest part of the midden was exposed along the line of Section "A" shown as profile X - X₁ on Map 4. In Sections 7A and 8A the midden soil showed a depression into undisturbed terrace, forming a large conical pit. Directly to the north of the latter was another slight depression, about 12 inches in depth and 15 feet in diameter. This may have been a

sweat house, though our excavations produced no positive data on this point. If it ever actually were in use as a sweat house, then what was found would indicate that it had been abandoned and served other purposes later as the midden continued to grow in depth (see descriptions of Features 2 to 5 below). Along this same profile (X - X₁) in Section 1A were recovered the only two burials (cremations) found in this site. Both were in well-defined pits, as can be seen below (Pl. 2b).

Observed in this deposit was a phenomenon not usually encountered in most Central California archaeological sites. This is the extremely sharp contrast in color and texture between the culture deposit and the sub-mound (Pl. 2f). So abrupt is the contact line that it almost suggests direct dumping, in quantity, of midden deposit, on a previously sterile surface. This obviously could not have been the case, however, since the contrast is common to the mound as a whole, as observed in all our profiles. A more likely explanation is that this appearance indicates a rapid accumulation of cultural debris on a rocky subsoil which tends to prohibit downward mixing.

Features

The features of this site are not different from those observed at Tri-47, save that here no storage pits were found. More extended operations, however, probably might reveal their presence at Tri-58.

Features 1 through 5 are all associated, as indicated by the fact that they were found, though at various levels, in the large depression in Sections 7A and 8A.

Feature 1

Depth from surface: 8 in.

Excavation unit: 7A and 8A.

Definition: house floor (No. 2). Large burned area, about 4 in. thick, of ash, charcoal, and charred wood, resting on a poorly defined house floor.

Associated objects and features: Features 2 - 5 directly below.

Dimensions: 15 ft. diameter and 4 to 6 in. thick.

Additional notes: only about 5 ft. of house floor was compact enough to expose.

Feature 2

Depth from surface: 21 in.

Excavation unit: 7A.

Horizontal location: 2 ft. N and 2 ft. W of SE corner of Section 7A.

Definition: small rock-lined fire pit containing charcoal deposit.

Associated objects and features: tip from obsidian point.
Dimensions: 3 ft. x 3 ft.
Stratigraphic position: associated with Feature 1 as part
of the house floor.

Feature 3

Depth from surface: 22 in.
Excavation unit: 7A and 8A.
Horizontal location: NS line between 7A and 8A.
Definition: small rock-lined fire pit.
Dimensions: 1 ft. x 1 ft. x 6 in. deep.

Feature 4

Depth from surface: 24 in.
Excavation unit: 8A.
Horizontal location: near center of section.
Definition: rock cairn consisting of a pile of unsorted rocks.
Associated objects and features: under house floor and in same
level as Features 2 and 3.
Dimensions: 3 ft. x 2 ft. x 1 ft. thick.

Feature 5

Depth from surface: 54 in.
Excavation unit: 7A.
Horizontal location: SE corner of 7A.
Definition: unsorted rock cairn covering small unlined pit
extending into sub-mound soil.
Associated objects and features: directly under this feature at
a depth of 72 in. was a concentration of charcoal.
Dimensions: about 2 ft. diameter and about 10 in. deep.
Additional notes: at first this was thought to be a burial pit,
similar to those of Tri-47. It may, however, really represent
the bottom of a sweat house.

Feature 6

Depth from surface: 18 in..
Excavation unit: 1A.
Horizontal location: on N edge of Section 1A.
Definition: small concentration of flat cobble stones, all
about 4 in. diameter.
Associated objects and features: obsidian point, mammal bone,
and fossil root (?).
Dimensions: 18 in. diameter.
Stratigraphic position: in sterile subsoil.

Feature 7 (Pl. 2a)

Depth from surface: 6 to 8 in.
Excavation unit: 2B, 3B, and 2A, 3A.
Definition: house floor (No. 1), with complex of fire pits.
Associated objects and features: 2 hearths, fire pit in center,
arrow points and scrapers.
Dimensions: 18 ft. x 16 ft.
Stratigraphic position: immediately on sterile subsoil.

Feature 8 (Pl. 2c; Fig. 2a)

Depth from surface: 14 in.
Excavation unit: outside of grid area in the NE section of the
site. 9 ft. N of oak tree as shown on Map 4.
Definition: well-preserved house floor or packed soil of a
sudatory.
Associated objects and features: well-defined fire pit and small
round cobbles of a type and size more characteristic of those
used for direct steam sweating.
Dimensions: 11 ft. x 11 ft.
Stratigraphic position: directly above sterile subsoil.
Additional notes: first detected by bulldozer blade striking
hearth stones.

Burials

At Tri-58, as in the other sites examined, we could find no definite burial ground, even though a thorough search was made with the aid of a bulldozer. It became apparent that burial plots are not to be expected in direct village association. A cut was made through site Tri-59 directly across the creek from the present site, with the slight expectation that burials might be found there. Nothing rewarded our efforts. A search on the prominent surrounding knolls proved negative as well. It is possible that cemeteries might be located on sandy terraces, below the sites, and therefore subject to high-water flooding. Only accidental river erosion would expose such a location.

Only two burials were found in site association and these were adjacent to each other in the northeast edge of the site in Section 1A. Both were cremations, of the redeposited type, i.e., the body had been burned elsewhere and the ashes and partially burned bone later placed in a burial pit (Pl. 2b). Both of the burials contained a variety of artifacts, none of which showed any evidence of having had any fire contact. Burial 1 contained a pestle, broken into four pieces. The practice of placing broken pestles with burials has also been noted at the Wintu site of Teh-58, near Red Bluff. Cremations have not previously been noted as a Wintu trait, hence we are dealing with a new element for the area. On the other hand, these two burials may be atypical, and represent a special, even accidental event.

Burial 1 (Pl. 2b)

Excavation unit: 1A.

Location: 10 ft. E and 9 ft. 5 in. S of NW corner of Section 1A.

Depth: 2 ft. 6 in. to center of cremation.

Age: adult.

Type of disposal: cremation (secondary) in pit.

Associated objects: 3 pounds of obsidian chunks and small chips (UCMA 1-146893, 1-146894); 4 obsidian points (1-146895 to 1-146898); 1 blue glass bead (1-146899); 4 clam disk beads (1-146900); 5 fragments of red abalone - trade blanks (1-146901); 1 pestle (1-146902; Fig. 2g).

Remarks: cremation is of a secondary type in that a definite pit is involved for interment. Both completely calcined bone and charred pieces of skull were observed. Original burning took place elsewhere. Pestle broken into 4 pieces.

UCMA number: 12-9404.

Burial 2 (Pl. 2b)

Excavation unit: 1A.

Location: 10 ft. E and 6 ft. S of the NW corner of unit 1A.

Depth: 2 ft. 6 in. from surface.

Type of disposal: cremation (secondary).

Age: adult.

Associated objects: 4 chunks of obsidian and small flakes (UCMA 1-146903); 3 obsidian points (1-146906 to 1-146908); 1 clam disk bead (1-146905); 4 red abalone shell blanks (1-146910); piece of flat charred wood possibly representing a section of bow (1-146909).

Remarks: similar type of cremation to Burial 1; probably interment was made at the same time.

UCMA number: 12-9405.

Chipped Stone Artifacts

Projectile points. Here, as in the Hay Gulch site (Tri-47), small projectile points are the most common type of artifact. Some 100 classifiable specimens were recovered and are to be found under catalog numbers 1-146764 to 1-146890 in the Museum of Anthropology of the University of California.

Site Tri-47 produced only Gunther barbed type points. Here this same type predominates but additional projectile point types occur as well (see table, Fig. 2). All the points are of obsidian, except one which is of green Franciscan chert.

Gunther barbed types:

1. Type with stems longer than tangs. The form of the stem may be pointed, rounded, or squared. 70 specimens recovered. Fig. 2 l-m. Note that this sub-type includes the smallest (Fig. 2m) of the projectile points (UCMA 1-146764 to 1-146835).
2. Same as type 1, but with serrated lateral edges. 3 specimens. Fig. 2m-o (UCMA 1-146836 to 1-146838).
3. Type with ill-defined tangs (shouldered). 10 specimens. Fig. 2p (UCMA 1-146839 to 1-146848).

Other projectile point specimens:

1. Diamond-shaped type: This form has only a general diamond shape. It varies from a near-symmetrical diamond to asymmetrical forms. Characteristically, it is fairly thick and possibly represents a small core product rather than a flake-derived point. 7 specimens. Fig. 2q (UCMA 1-146849 to 1-146855).
2. Corner notched expanding stem points: This form possesses definite corner notching and from the shaping of the latter an expanded stem is in turn produced. It is this feature which chiefly distinguishes it from the Gunther barbed forms. Also, the degree of expansion of the stem would seem to minimize the effectiveness of the corners of the points as barbs. 10 specimens. Fig. 2r-s (UCMA 1-146856 to 1-146865).

Scrapers. Throughout the excavation numerous flakes of siliceous material, especially obsidian, occurred. These showed evidence of marginal secondary flaking, much of it probably merely "use retouching," although a number of the specimens showed chipping which could have been done deliberately with the idea by the manufacturer of making a definite tool. Only one specimen of obsidian was retained for the collection. This exhibits edge pressure flaking, competently executed (UCMA 1-146884).

Ground and Pecked Stone Artifacts

Pestles. Pestles from this site were better shaped than those from the other sites examined. The usual elongated cobbles with battered flat ends occurred frequently, and in addition 4 specimens with overall shaping were collected. The latter have been illustrated (1/3 natural size) in Fig. 2e-h. Two of the shaped pestles are of particular interest. One (Fig. 2g) occurred in association with Burial 1 and had been broken into 4 pieces. The practice of "killing" well-shaped pestles, as noted above, was common at the Wintu site Teh-58, near Red Bluff. This form of pestle is characteristic of the central Sacramento Valley and the central Coast Range as far north as Round Valley in Mendocino County (Treganza, et. al.,

1950, Pl. 12u). The other pestle type, i.e., that with the flange toward the distal end (Fig. 2h), is suggestive of the lower Klamath River and northwest coast of California in general. Kroeber (1925, Pl. 16) illustrates an almost identical specimen collected from the Yurok. Some antiquity may be accorded this type, as Loud (1918) found a similar specimen in the Gunther Island deposit. He gives the coastal distribution of the type from a little south of Cape Mendocino north to Curry County in Oregon (*ibid.*, p. 362; Figs. 11, 12; Pl. 16, Fig. 1). This type is not to be confused with the flanged type of pestle from the Santa Barbara coast, in which the flange occurs on the opposite, or proximal, end (UCMA 1-146902, 1-146918, 1-146921, 1-146923).

Hopper mortar stones. About 10 hopper mortar stones were recovered. These are similar to those described for site Tri-47. No examples were saved because of their bulk. Their numerical presence is the significant factor.

Charmstones. The northern Wintu exhibit a sharp cleavage with the rest of Central California in respect to those specimens called charmstones. In Central California various plumb-bob and spindle shapes, with or without perforations, are manufactured. In the Trinity region the typical charmstone seems to be some object formed by nature, such as a fossil root, fossil bone, or odd-shaped stone or concretion. Du Bois (*op. cit.*, p. 82) provides good historic documentation for this and archaeological investigations at Red Bluff provide confirmation for the presence of this trait, as a variety of unusual objects were found there in burial association (Treganza, 1954, Pl. 6).

At Tri-58 but a single specimen was found; this is a section of a belemnite, or fossil cephalopod. Some other concretions were found, but unless they occurred in some specific association, such as with a feature or burial, they were not classified as charmstones.

Pendants. Two fragmentary pendants, similar to each other in form, were found. They were made of steatite and slate, respectively. Both specimens were ground into shape and resemble in outline a perforated, partially serrated arrow point (Fig. 2c; UCMA 1-146878).

Shell Artifacts

Shell in any form was rare in all of the sites examined. Native river mussel, important as food in the upper Sacramento drainage, are almost wholly lacking on the upper Trinity, and therefore not available as artifact material. Shell had to reach this area by trade either up the Klamath and Trinity Rivers or over the mountains from the upper Sacramento Valley. Should it come from the latter source, it probably would arrive in finished form. All of the shell specimens recovered were of marine shell, as follows:

Clam disk beads. Five specimens were found in association with Burials 1 and 2. They are of the Late Horizon type, typical of the Central California culture area (Fig. 2d).

Abalone blanks. Burials 1 and 2 both contained pieces of broken abalone shell. Some of the pieces were beach-worn fragments and others were unworn rim and body pieces. It is assumed that these pieces represent individual trade blanks rather than a "killed" single shell.

Historic Artifacts

Numerous metal, glass, and porcelain objects were found on the surface and in the top few inches of the site deposit. Since the old resident, Linton, had a barn on the site and a house nearby, it is probably safe to associate all this material with his establishment. The only artifact of post-Contact origin which can be associated with the Indian occupation of the site is a small blue glass bead, 2.5 mm. in diameter. This was found in association with Burial 1 (UCMA 1-146899).

Summary and Conclusions

Any conclusion must be more in the form of a summary of observations and other statements that have been made throughout this report. The region of the Upper Trinity Wintu has heretofore been unknown archaeologically and the utilization here of limited ethnographic data has been merely an attempt to fill out the meager material returns of our 1957 research.

Failure to find a cemetery containing the rich mortuary offerings typical of the Wintu has to some degree created the picture of an impoverished group of Indians eking out a scanty living far from their rich relatives in the Sacramento Valley. Actually, there is no reason to assume that these Wintu were any different than any other group of the same language family, save that, being more isolated, they did not fully participate in what might be called the typical Wintun culture. It is possible that when a cemetery is found and when perhaps one of the ceremonial sites is excavated, the entire picture will be altered.

Archaeological and ethnographical evidence indicate that this Upper Trinity River area was occupied in fairly late times. The Upper Trinity Wintu might even have represented a kind of "hillbilly" group, off the main track of Sacramento Valley and Coastal diffusion routes. This impression, of course, may be due to the smallness of our sample, but with what has been collected so far, it appears that more Lower Klamath traits, for example, occur in the Upper Sacramento Valley, north and south of Redding, than in the Trinity area. Probably the Gunther barbed type projectile point, which, incidentally, bids fair to be recognized as an

"index artifact" of the late prehistoric and historic periods of Northern California archaeology, is coastal in origin. Probably the flange type pestle, and certainly the abalone shell blanks, are also coastal. The suggested steam sudatory comes from the northeast and is essentially non-California. All the remaining traits, such as the dwelling house, the semi-subterranean sweat house, the dance house, and the hopper-mortar are typical expressions of a late prehistoric and historic culture pattern of Central California.

The value of the present project lies in the fact that outlines and some small substance have been supplied to a picture of a prehistoric culture of a previously unexamined area. This report has added to and confirmed a good part of the existing ethnographic work on the Wintu, and has provided some data on Northern California Coast and Central Valley relationships.

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Explanation of Figures

(All numbers are University of California Museum of Anthropology numbers.)

Figure 1: Traits Observed at Site Tri-47.

- a. Reconstruction of Wintu bark house, based upon historic and archaeological data.
- b. Typical stone cache pit at site.
- c. Baked clay pipe. Scale 1/3. (No. 1-146753).
- d. Pestle made from stream cobble. Scale 1/3. (No. 1-146690).
- e. Pestle made from stream cobble. Scale 1/3. (No. 1-146693).
- f-i. "Gunther barbed" projectile point type, with stem longer than tangs. Scale 1/1. (Nos. 1-146711, 1-146719, 1-146722, 1-146724).
- j-k. "Gunther barbed" projectile point type, with stem longer than tangs, serrated edges. Scale 1/1. (Nos. 1-146728, 1-146731).
- l-m. "Gunther barbed" projectile point type, with ill-defined tangs (shouldered). Scale 1/1. (Nos. 1-146741, 1-146742).
- n. "Gunther barbed" projectile point type, with tangs longer than stem. Scale 1/1. (No. 1-146746).
- o-p. Same as n, but with serrated edges. Scale 1/1. (Nos. 1-146749, 1-146750).
- q. Outline chart showing variations of "Gunther barbed" type of points.

Figure 2: Traits Observed at Site Tri-58.

- a. Reconstruction of possible steam sudatory.
- b. Reconstruction of hopper-mortar stone with basket in place.
- c. Steatite pendant. Scale 1/1. (No. 1-146879).
- d. Clam disk bead. Scale 1/1.
- e. Pestle of granite. Scale 1/3. (No. 1-146921).
- f. Pestle of granite. Scale 1/3. (No. 1-146923).
- g. Pestle of sandstone. Associated with Burial 2. (No. 1-146902).
- h. Pestle of basalt, Klamath River type. Scale 1/3. (No. 1-146918).
- i-m. "Gunther barbed" projectile point types, with stems longer than tangs. Scale 1/1. Nos. 1-146766, 1-146769, 1-146772, 1-146787, 1-146895).
- n-o. Same as i-j, but with serrated edges. Scale 1/1. (Nos. 1-146836, 1-146838).
- p. "Gunther barbed" projectile point type, with ill-defined tangs (shouldered). Scale 1/1. (No. 1-146842).
- q. Diamond-shaped projectile point. Scale 1/1. (No. 1-146853).
- r-s. Corner notched, expanding stem projectile points. Scale 1/1. (Nos. 1-146855, 1-146861).

Explanation of Plates

Plate 1 (Tri-47)

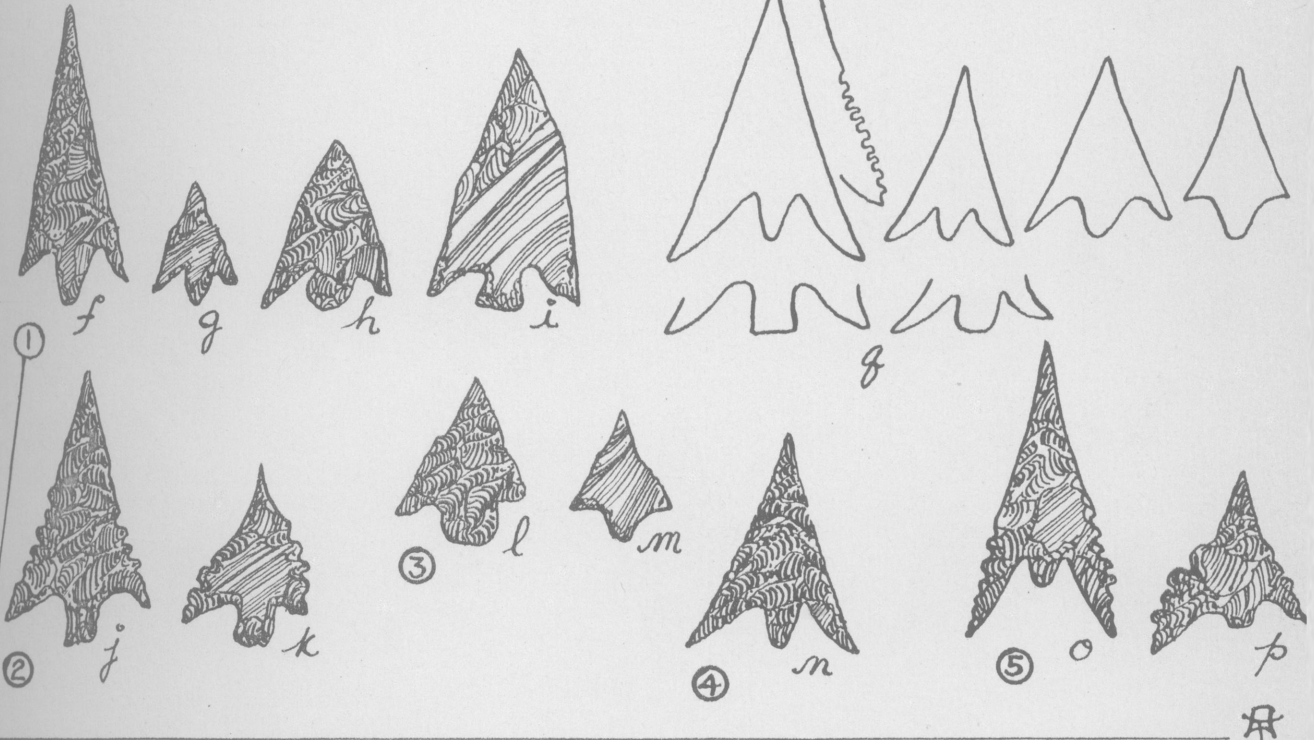
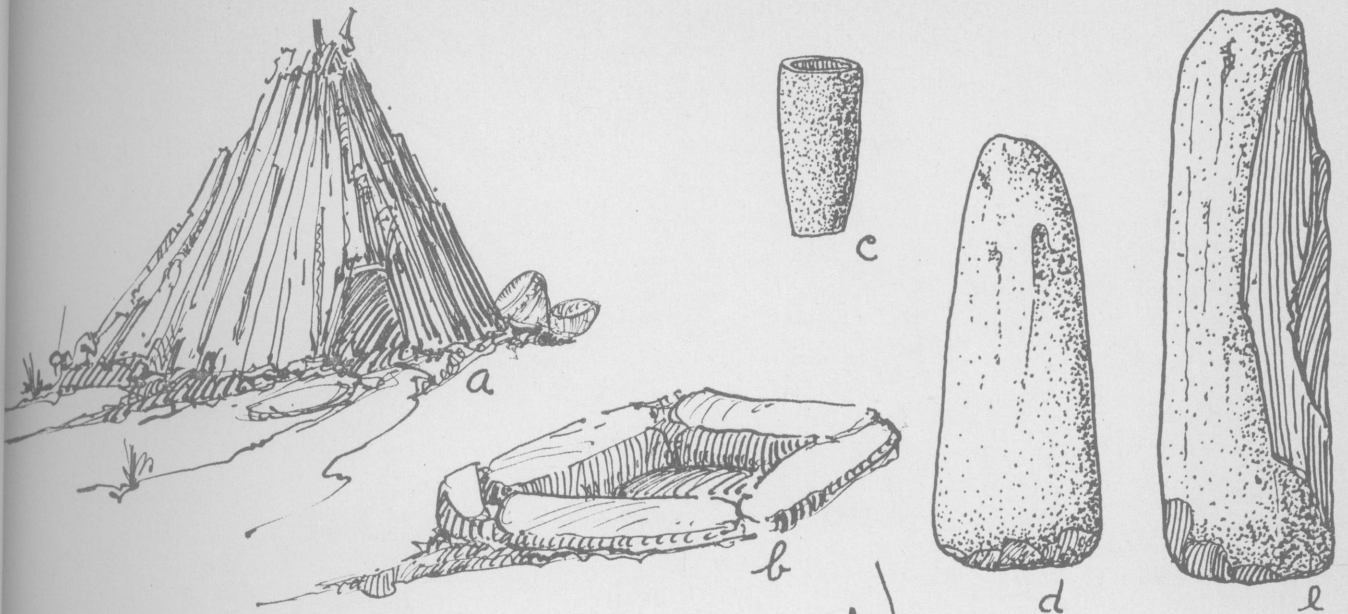
- a. Pit burial, No. 1.
- b. Burial No. 2, with hopper-mortar in association.
- c. Feature No. 1. Cobble stone cache pit.
- d. Feature No. 3. Double cobble stone cache pit.
- e. Feature No. 4. Red cedar bark and split wood representing possible house remains.
- f. Dark soil representing typical storage pits.

Plate 2

- a. Tri-58: Man exposing house floor No. 1, showing fire pit.
- b. Tri-58: Cremation pits. Burials Nos. 1 and 2.
- c. Tri-58: Steam sudatory or house floor.
- d. Tri-49: Controlled bulldozing scraping with a D-7 type bulldozer.
- e. Tri-47: Crew at work.
- f. Tri-58: Showing sharp contrast between midden deposit and sub-mound river terrace deposit.

Maps

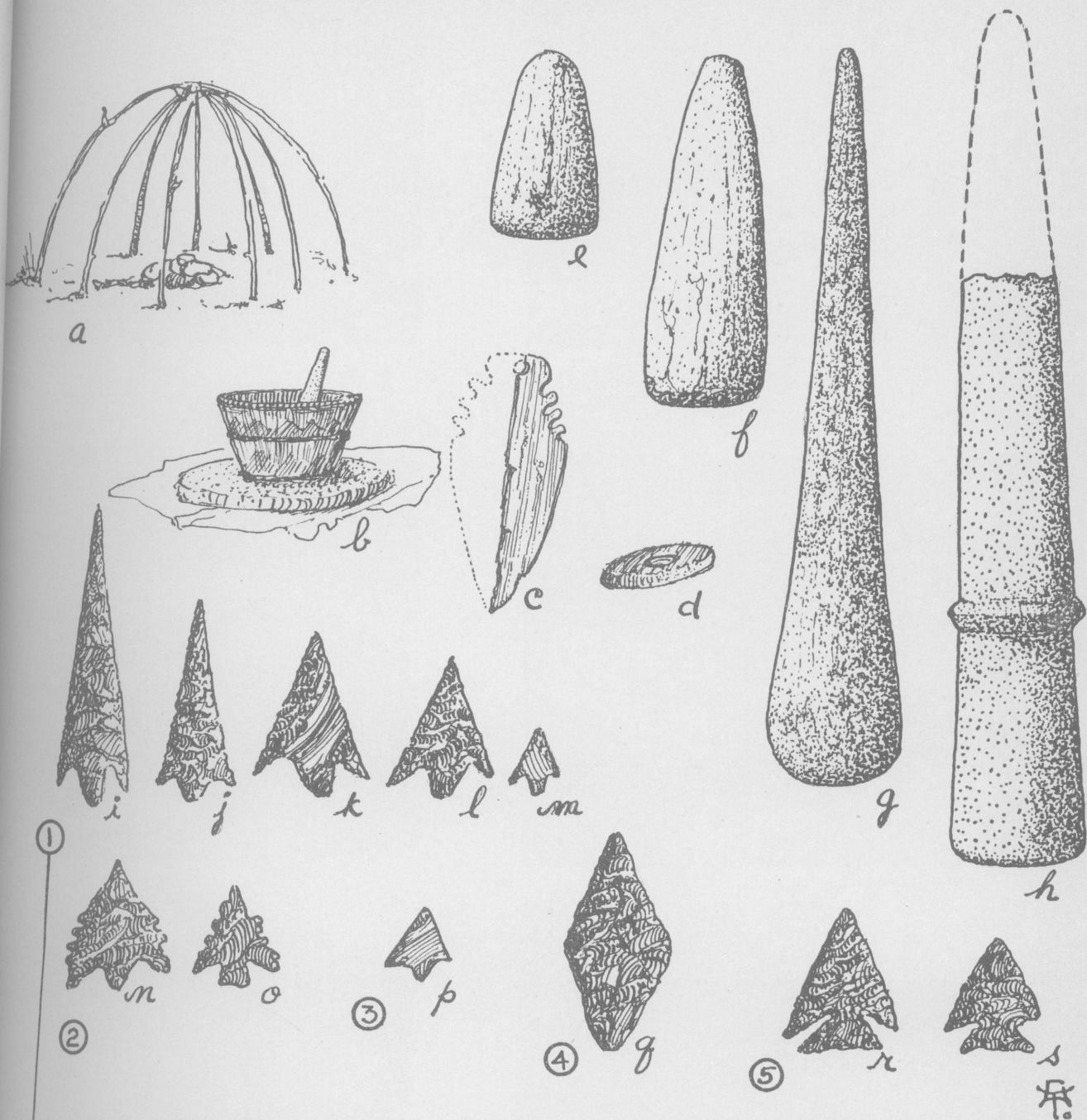
- Map 1. Tri-47 (Hay Gulch Site).
- Map 2. Tri-49 (Bragdon Gulch Site).
- Map 3. Tri-55 (Robinson Bar Site).
- Map 4. Tri-58 (Frank Pierce Site).
- Map 5. The Archaeological Sites in the Trinity River Reservoir Area.



	LENGTH (MM.)			WIDTH (MM.)			WEIGHT (GMS)			TOTAL NO.
	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.	
①	41	16	21	24	10	14	2.2	.5	1.8	22
②	38	21	30	23	13	18	1.1	.8	1	8
③	25	17	21	20	12	16	1.5	.4	.9	9
④	30	25	27.5	27	21	24	2.5	1.5	2	2
⑤	43	22	23	22	21	21.5	1.5	1.3	1.1	4

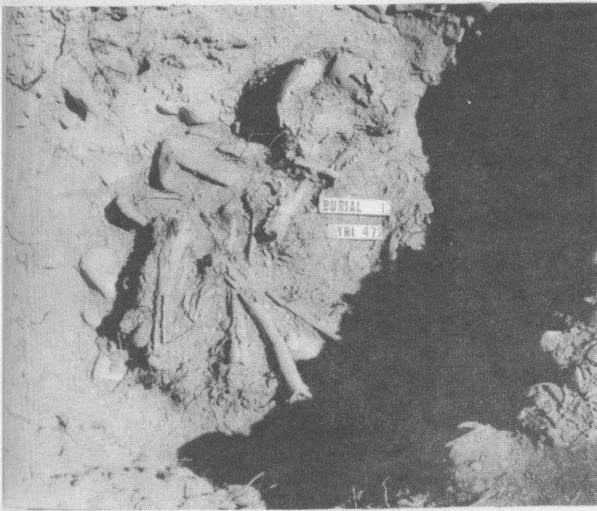
TOTAL 45

FIGURE 1

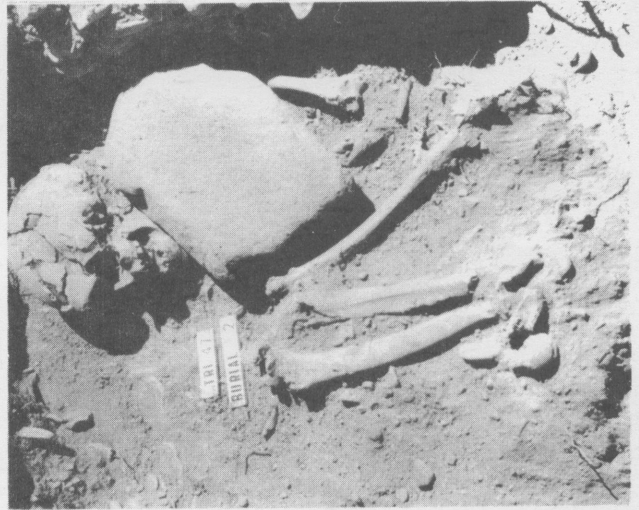


	LENGTH (mm.)			WIDTH (mm.)			WEIGHT (gms.)			TOTAL NO.
	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.	
①	50	12	28	19	10	14	2.8	.3	1	70
②	25	17	20	21	18	19	1.8	1	1.3	3
③	32	14	20	15	12	13	1.7	.8	1.2	10
④	40	21	30	18	11	14	4.2	1.9	2.3	7
⑤	37	20	29	25	15	19	3.8	.6	2.1	10
	TOTAL									100

FIGURE 2



a



b



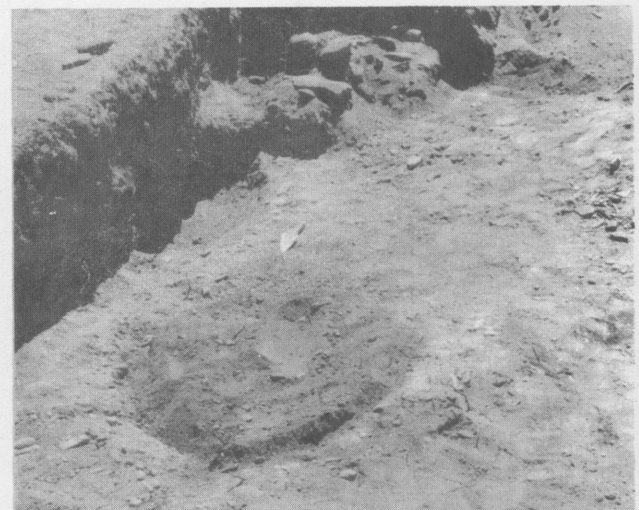
c



d



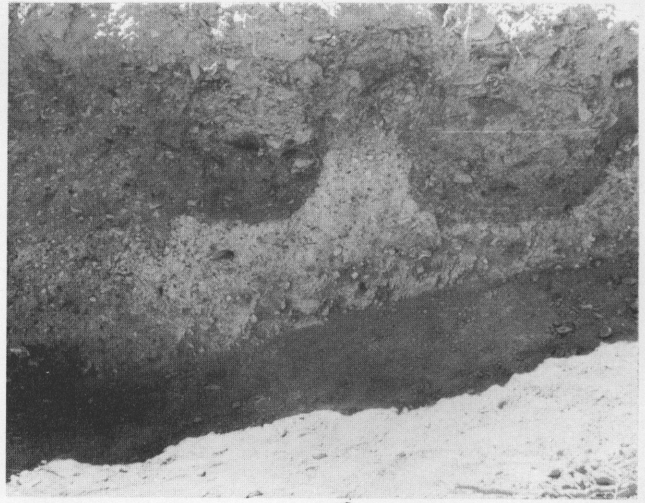
e



f



a



b



c



d



e

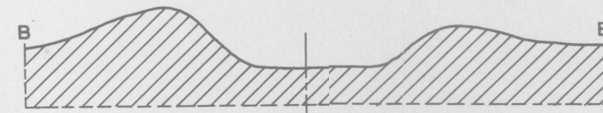
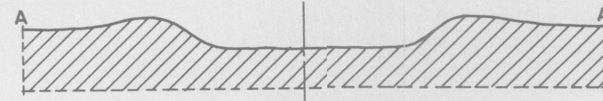


f

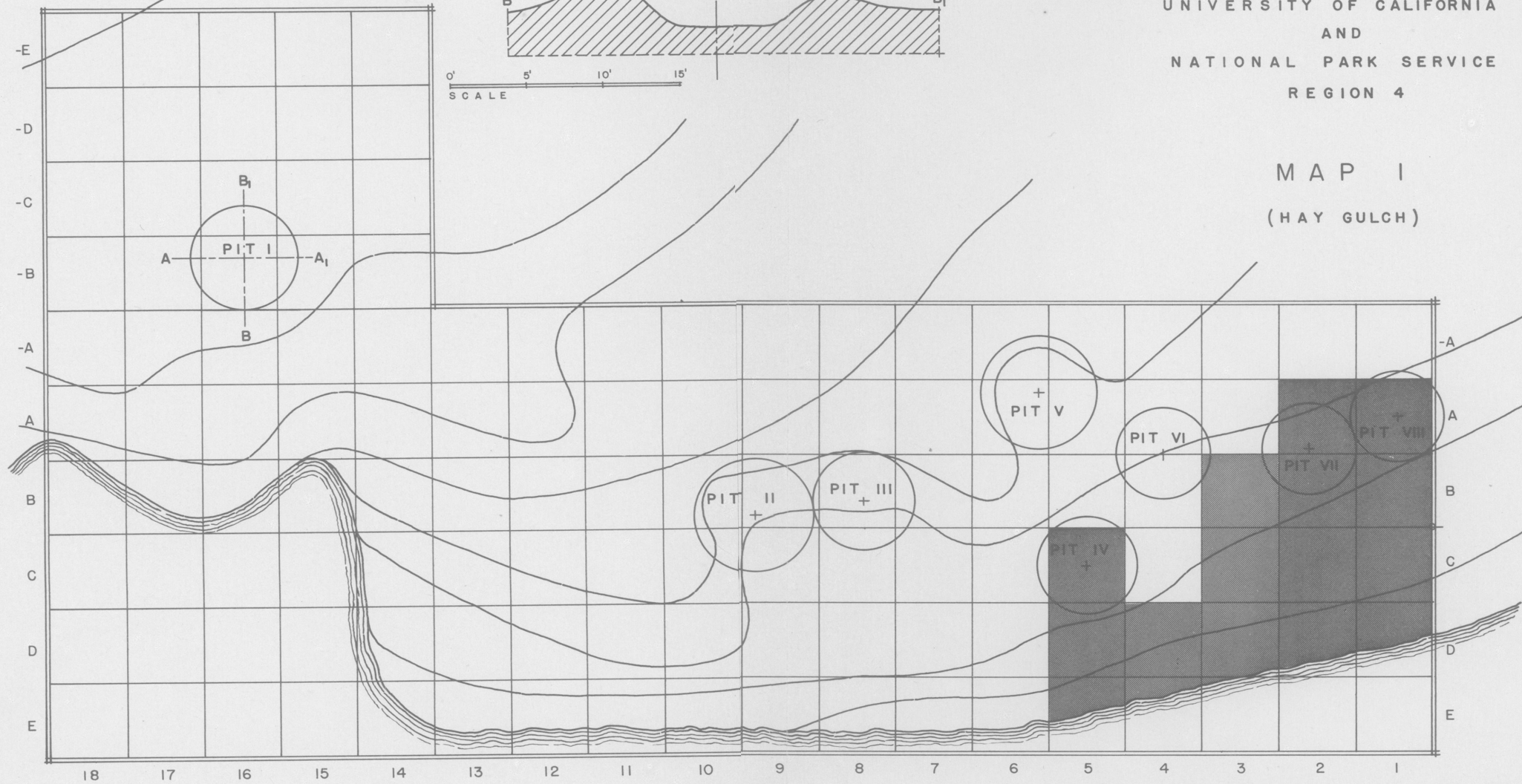
Site Tri - 47

TRINITY RESERVOIR AREA
 DEPARTMENT OF ANTHROPOLOGY
 UNIVERSITY OF CALIFORNIA
 AND
 NATIONAL PARK SERVICE
 REGION 4

MAP I
 (HAY GULCH)





0' 5' 10' 15'
 SCALE



C O B B L E
 B E A C H

T R I N I T Y
 R I V E R

-  HOUSE PITS
-  AREA EXCAVATED



0' 5' 10' 15' 20' 25' 30' 35' 40'

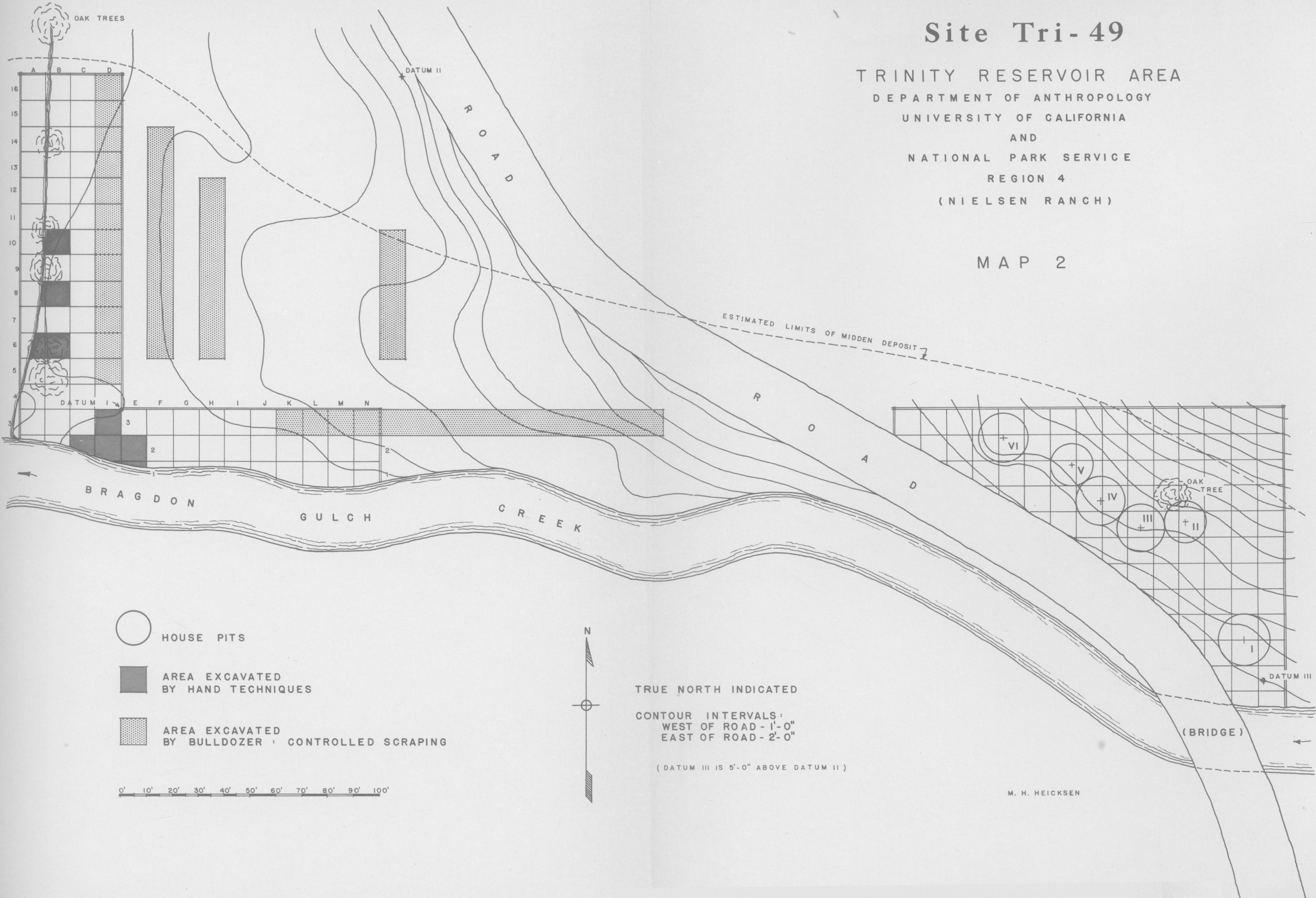
CONTOUR INTERVAL = 1'-0"

M. H. HEICKSEN

Site Tri-49

TRINITY RESERVOIR AREA
DEPARTMENT OF ANTHROPOLOGY
UNIVERSITY OF CALIFORNIA
AND
NATIONAL PARK SERVICE
REGION 4
(NIELSEN RANCH)

MAP 2



- HOUSE PITS
- AREA EXCAVATED BY HAND TECHNIQUES
- AREA EXCAVATED BY BULLDOZER CONTROLLED SCRAPING

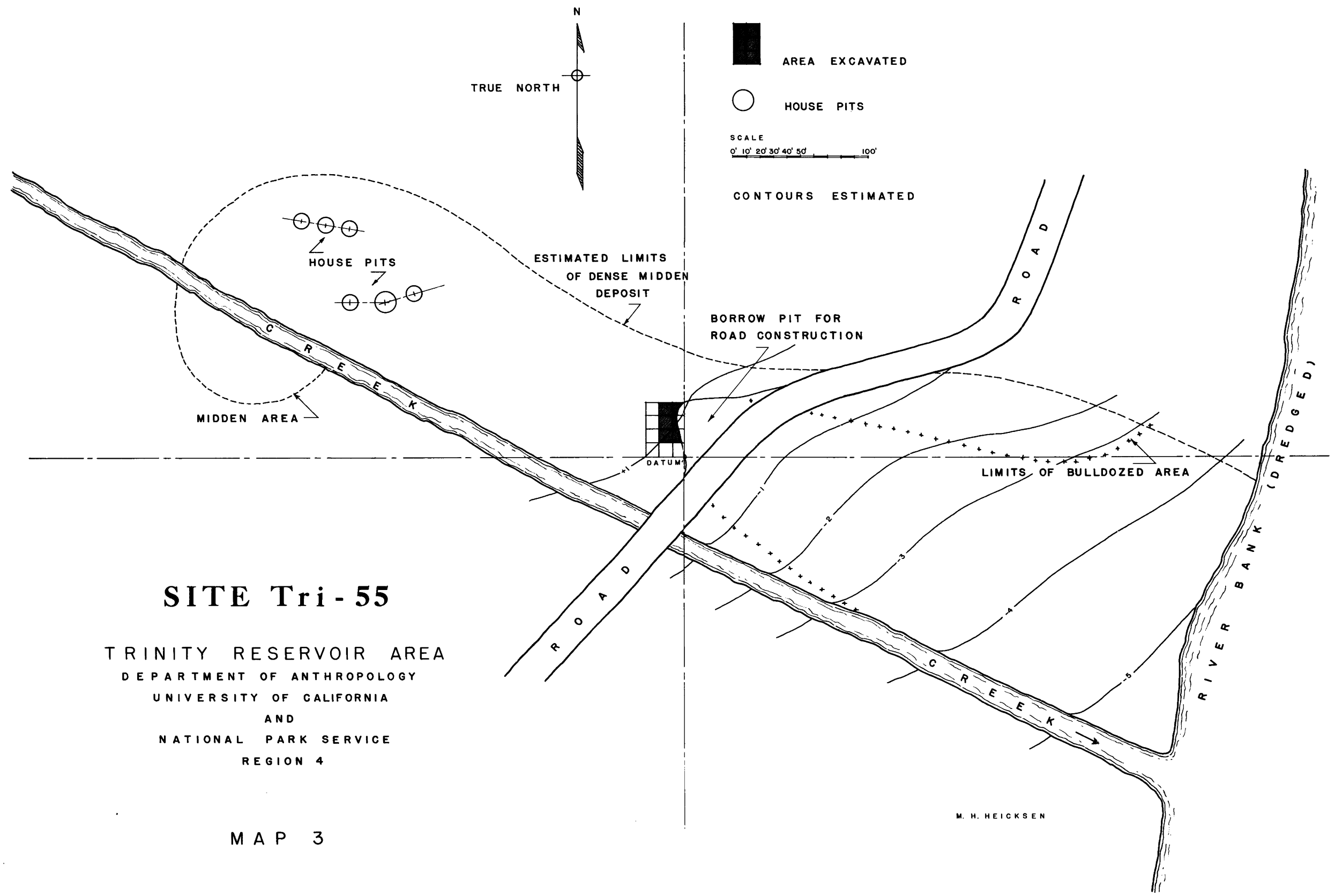


TRUE NORTH INDICATED

CONTOUR INTERVALS:
WEST OF ROAD - 1'-0"
EAST OF ROAD - 2'-0"

(DATUM III IS 5'-0" ABOVE DATUM II)

M. H. HEICKSEN



SITE Tri - 55

TRINITY RESERVOIR AREA
 DEPARTMENT OF ANTHROPOLOGY
 UNIVERSITY OF CALIFORNIA
 AND
 NATIONAL PARK SERVICE
 REGION 4

MAP 3

M. H. HEICKSEN

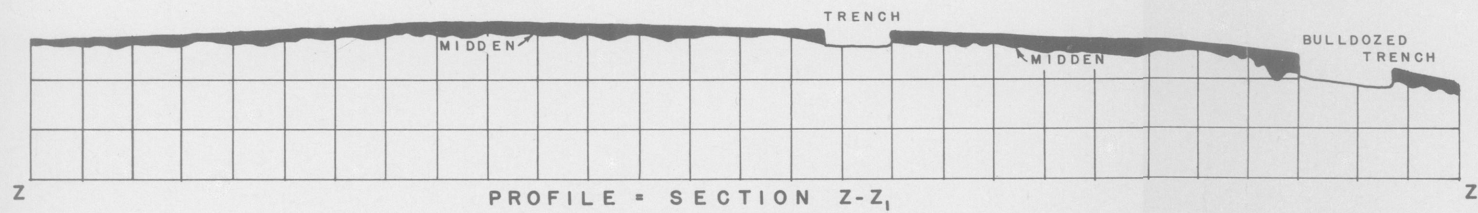
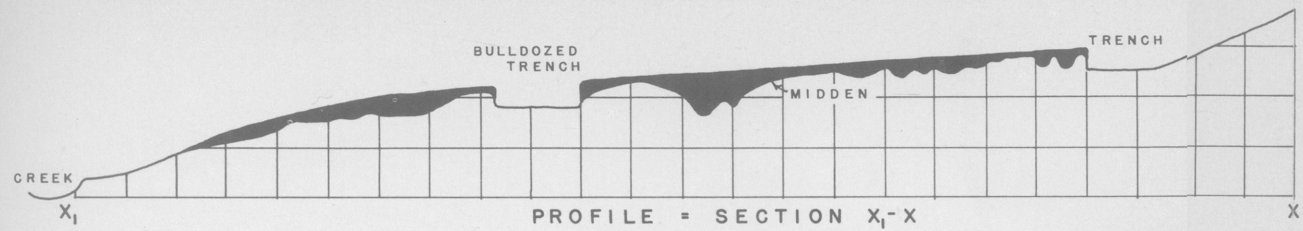
Site Tri-58

TRINITY RESERVOIR AREA
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 AND
 NATIONAL PARK SERVICE
 REGION 4

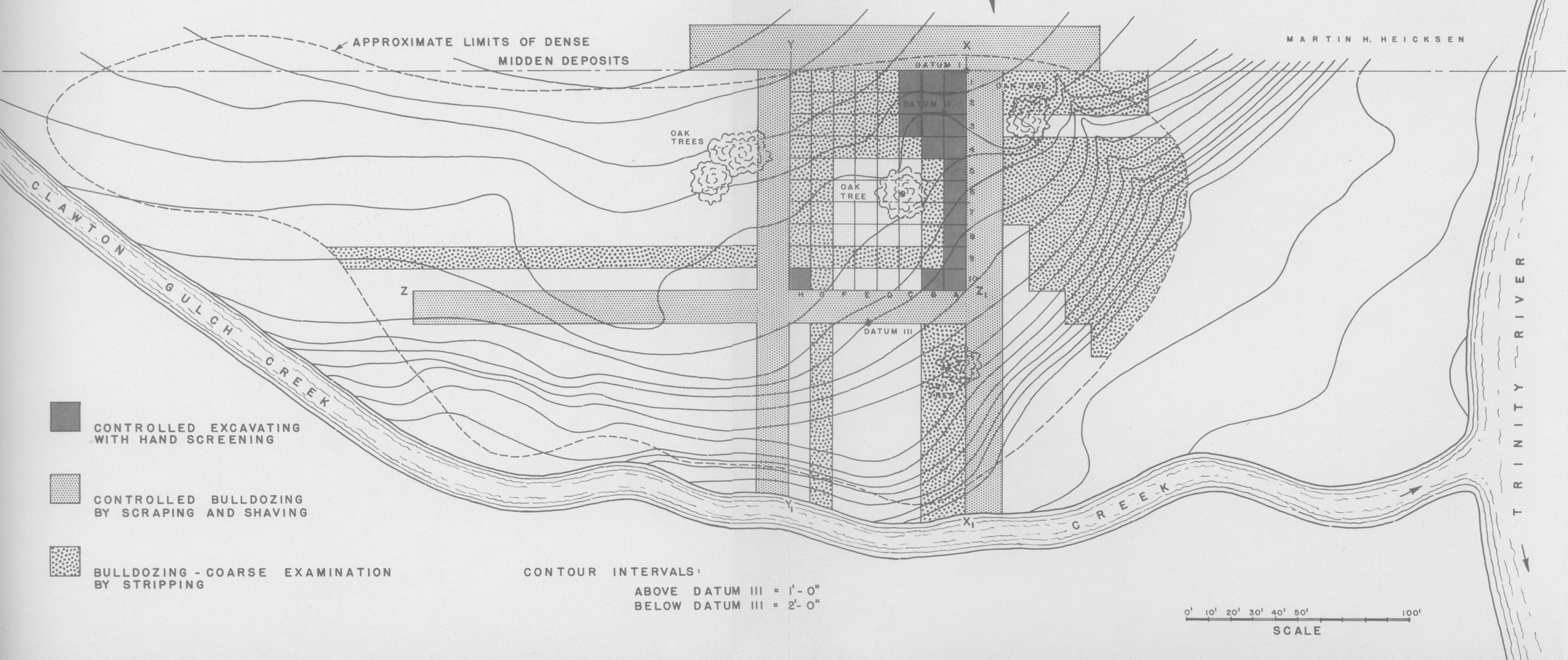
FRANK PIERCE RANCH *




MAP 4

*(LINTON RANCH)

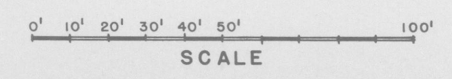


MARTIN H. HEICKSEN

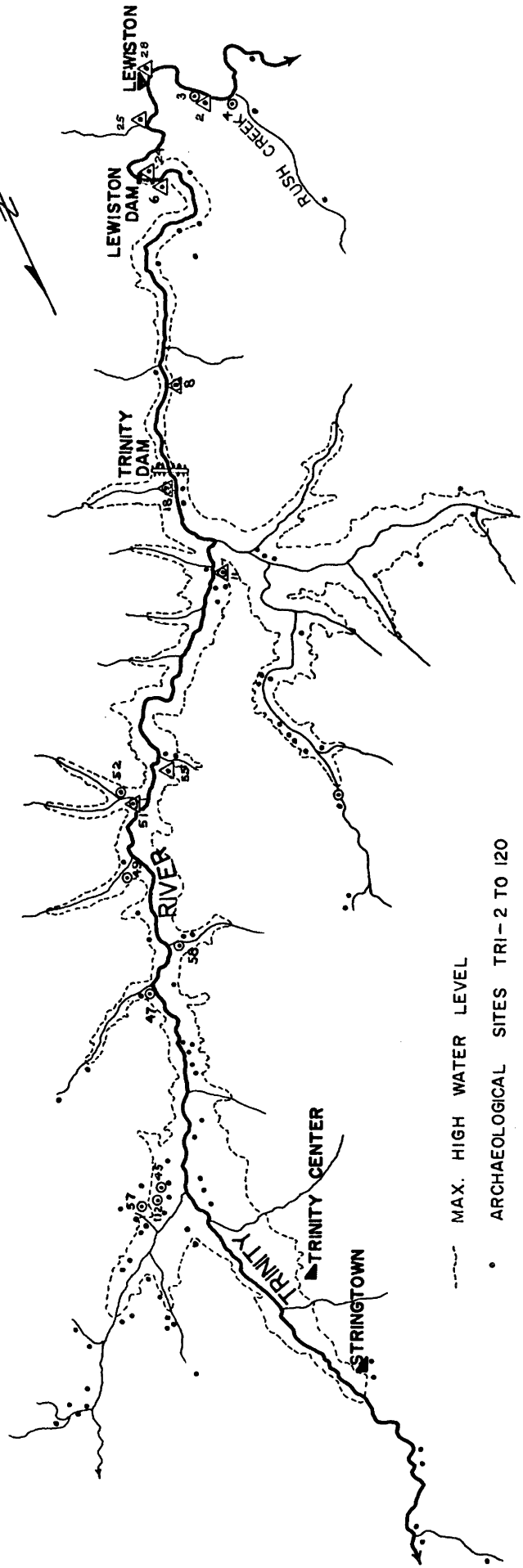


-  CONTROLLED EXCAVATING WITH HAND SCREENING
-  CONTROLLED BULLDOZING BY SCRAPING AND SHAVING
-  BULLDOZING - COARSE EXAMINATION BY STRIPPING

CONTOUR INTERVALS:
 ABOVE DATUM III = 1'-0"
 BELOW DATUM III = 2'-0"



TRINITY AND LEWISTON RESERVOIRS TRINITY COUNTY, CALIFORNIA



- MAX. HIGH WATER LEVEL
- ARCHAEOLOGICAL SITES TRI-2 TO 120
- ⊙ ARCHAEOLOGICAL SITES ORIGINALLY RECOMMENDED FOR EXCAVATION
- △ ARCHAEOLOGICAL SITES DESTROYED SINCE ORIGINAL SURVEY 1952

0 1/2 |
MILE

MAP 5