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## 65. Modern Petrography in Central California and Western Nevada

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Although no definite techniques for assigning dates to the petroglyphs of California or Nevada have yet been discovered, there are some dating generalities which concern the distinction between pictographs, or designs painted on rocks, and petroglyphs proper, where the designs are cut into the rocks. While living Indians in California, with some exceptions indicated below, have since times of early contact with Caucasians denied any knowledge of the origin or antiquity of either the painted or cut designs, we may assume from observing the rate of recent weathering on pictographs that they are relatively quite recent. Petroglyphs, on the other hand, sometimes retain evidence suggesting fairly great age, for example in a group near Yerington, Nevada, the glyphs are covered with desert varnish, and in a site in Southern California some of the design elements of a group are covered with travertine (Steward, 1929, p. 233).

Petroglyphs covered with desert varnish or with any other natural covering, such as lichen growth, cannot on that basis alone be even approximately dated (cf. Harnar, 1956, p. 42, for aspects of formation of desert varnish). Association of designs with other cultural elements, superimposition of elements, and extent of distribution of designs are factors which must also be given weight in any attempts at estimating age.

Whatever the true age of pictographs and petroglyphs, it is likely that most of them were made prehistorically, in California and Nevada at least, and probably by the ancestors of Indians now or but recently living in the regions where they occur. Their purpose has been discussed innumerable times, and many interpretations have been set forth by local historians and amateurs of Indian lore, most of the "translations" turning out to be not worth consideration by serious students of the subject. With the latter, investigation has been most fruitful in the direction of classification of design elements and distributional studies. From this approach have come hypotheses concerning relationships between different design areas, and age estimates of certain groups or individual motives (see Cain, 1950; Gressman, 1937; Jackson, 1938; Steward, 1929). These workers seem to agree that much Indian petroglyphic art had some religious or ceremonial purpose. Associations of ground or face painting and pictographs, with some meanings assigned to the symbols, are given for example for the Luiseño girls' adolescence ceremony by Strong (1929, p. 298). Occasionally there are documented glimpses of some stated purpose of petroglyphic art, such as that of marking a shaman's cache (Gayton, 1948, p. 113). Voegelia (1938, p. 5B)

states that among the Tübatulabal, there is a belief that pictographs "have always been there. They were painted on the rocks by brownies . . . who are about the size of a 5-yr.-old child." Many of the interpretations, as spirals being water symbols or mazes, or circles and wavy lines representing maps, can, although plausible in some cases, be given only in a speculative way. In short, the great majority of petroglyphs of California and Nevada are not yet, and probably never will be, amenable to completely logical interpretation.

The foregoing brief sketch refers only to petroglyphs which by their relative crudeness but quite specific cast have come to looked upon as the work of the aboriginal inhabitants of the California-Western Nevada region. Another type of rock-drawing, here referred to as "modern," is the actual subject of this paper. Data for this exposition have been collected almost accidentally, since about 1948, by the University of California Archaeological Survey. In response to a number of requests by persons who have interested themselves in local "rock-writings," the Survey has investigated at least seven sites in Central or Northern California and Western Nevada, all of which at first view appeared to contain some elements which were distinctive and had not been recognized previously in the more than 200 petroglyph sites recorded in the two states.

Since the validity of the sites as points of archaeological interest has not always been established, some of them are referred to in the figure and tables below by UCAS designations, such as Sol-16, while others are merely indicated by giving the general location. A description of the sites and the associated petroglyphs follows:

- (1) Sol-16. A hard sandstone outcropping on the side of a hill near Rockville, Solano County. Elements are arranged on one rock only, in what appear to be lines, i.e., a message of some sort evidently was intended. The dimensions of the decorated area are 17 x 31 inches (fig. 1).
- (2) Ala-51. Near Mission San Jose, Alameda County. Drawings are on several outcropping rocks similar in texture and situation to those of Sol-16, and one of the rocks contains a "message" group. Each element of the latter is about 3 inches high (fig. 1).
- (3) Genoa, Nevada. About two miles south of town, on a granite rock on the lower slope of the east side of the Sierra Nevada. Elements are spaced at random on face of rock, with one group forming a "message" unit with dimensions of 8 x 19 inches (fig. 1). Aboriginal bedrock mortars were found near this site.
- (4) Tilden Park 1. In Alameda County public recreational area. Elements occur sporadically on a number of outcropping hard sandstone rocks on the side of a hill. Dimensions of each element 2-3 inches in height and width.

- (5) Tilden Park 2. In same recreational area, but about one mile north of Tilden Park 1. One group of petroglyphs is cut into rock outcropping and consists of five elements only, each also with dimensions of 2-3 inches. On a separate rock not far away are some human hand-prints (actual size) filled in with hematite. There is a strong possibility that these prints were made prehistorically by Indians, and are not associated with the other petroglyphs. To be noted also is that an aboriginal hematite quarry has been identified about four miles to the south, in the same range of hills and at about the same elevation (see Wallace, 1947, p. 272).
- (6) Castle Crags. In Shasta County, a few miles south of the town of Dunsmuir. In igneous rock outcrop, with five elements only, spaced irregularly. One element is a painted hand (actual size) as at Tilden Park 2. Again this might be of prehistoric origin; an eye-motif, or an attempt at this, has been scratched on the palm portion of the hand symbol. The "eye" seems to have been added after the painted symbol was made, and is probably related to the other, later, incised designs. (See Rands, 1957, for distribution of hand-eye motif.)
- (7) Ala-19. On hill slope, south side of Claremont Creek, in limestone formation. Elements are not clustered as in a "message" group, but, on some parts of one rock face, appear in straight lines.

Seventy-three elements have been clearly recognized, and their distribution appears in Tables 1 and 2 below. Of these elements, all are petroglyphs except the painted hand (No. 16) appearing at Tilden Park 2 in Alameda County and at the site near Castle Crags in Shasta County. The symbols appear on the rocks mostly unaccompanied by any other type figures, such as identifiable Zodiac signs, Arabic or Roman numerals, letters of any European alphabet at least, or Chinese characters. The latter have been found in several places in California and have no doubt been mistaken at first by some either for Indian petroglyphs or perhaps for evidence that Chinese or Japanese explorers visited North America in preColumbian times (see Loew (1876) and Smith (1950) for illustrations of such petroglyphs). In summary, the petroglyphs from the seven sites described here cannot be positively identified as being the work of mere casual doodlers or persons wishing simply to advertise to all who follow that they have stopped at a place.

The symbols fall into four categories, as follows:

- (1) Symbols used aboriginally outside of California and Nevada: (a) those considered to have been used in the pictographic art of the Ojibwa and Dakota groups, e.g., elements 2, 6, 8, 9, 10, 12, 21, 23, 24 and 38 (?) (cf. Mallery, 1893); (b) the two marks resembling Maya numerical symbols, elements 35 and 36. The presence of Ojibwa-Dakota and Maya

symbols in California cannot, of course, be attributed to prehistoric diffusion.

- (2) Signs which may have some significance to pseudo-religious sects, e.g., elements 1, 20, 27, 30, 43, 51 (?). The swastika and its variants, elements 28, 42, 46, 62, 63 (?), although employed as motifs by some American Indian groups also should probably be included in this category.
- (3) Elements used in local Indian petroglyphs, e.g., numbers 3, 7, 16, 23, 29, 57, 58. Straight or wavy lines such as elements 5, 22, 39, 50 may have been used practically anywhere in North America, including California and Nevada.
- (4) Possible cattle-brand replicas, e.g., elements 49, 56, 71 and 72.

When the first site of the seven was investigated, scant attention was paid to it, since the designs were attributed to one or another of the esoteric, pseudo-religious sects, many of which, as is well-known, have their headquarters in California. As one site after another was reported, however, and as a fairly definite similarity of motif, if not technique of execution, was noted between several of the more spectacular groups, it was thought desirable to put this form of "art" on record, if only to serve as an example to future investigators of the sort of chicanery, intentional or otherwise, which might be encountered in this field.

The addition of evidence from the seven sites has served to confirm rather than deny the idea suggested above concerning the agency responsible for the making of the petroglyphs. It is conceivable that some worthwhile end was served by these markings, but conscious faking or deception by their authors remains as the most likely explanation of their origin. In any case the unusual motives and their repeated association with each other at different sites marks them as distinct from the unquestionable aboriginal petroglyphy of the region, which is characterized by a consistency of execution evidently stemming from a common, probably fairly ancient tradition. "Modern" petroglyphs are so designated in the belief that if the Indians are not responsible for them, they must therefore have been done by Caucasians in the nineteenth or twentieth century, and might even have been incised as little as twenty years ago, just before the first of the seven sites described here was reported to the University of California. Mr. R. M. Rulofson, of Cordelia, California, has taken a deep interest in the various petroglyph groups outlined in this paper and has attempted to relate the symbols at several of the sites, at least, to the exploits of John C. Frémont, who had two Eastern Algonquian Indians (Delawares) with him on his 1843-44 expedition to California (Dellenbaugh, 1914, p. 112). Although this idea may have merit, the difficulty of proving the association on such tenuous evidence as petroglyphs is obvious.

In the opinion of the writers, the only facts which might have bearing on the dating of these petroglyphs as early as the nineteenth century are the publication of books such as that of Copway (1858), which shows characters purportedly used by the Ojibwa (e.g., elements 3, 7, 9, 10, 12, 16, 31 are shown in this volume, p. 132) together with meanings. This kind of material has been perpetuated in later years by manuals or guides to Indian lore of the order of Tompkins (1941). Also, in books by James Churchward, one of the most vociferous and notorious proponents of the discredited theory of the lost continent of Mu, are shown such elements as numbers 7, 37, 39 and 56, all used in support of the Mu theory.

In conclusion, it is not difficult to infer that, with a store of mystical symbols already at hand, and with some additional imagination, any individual or group of individuals, bent on executing what were conceived to be replicas of Indian petroglyphs in order to convey an esoteric message, could easily have been responsible for these markings, either out of a mischievous spirit or on behalf of some organization which set great store on mystical rites, or would encourage the placing of the symbols in the hope that at some future date they might constitute evidence, for example, of the presence of migrants from "lost continents" such as Atlantis or Mu.

ELEMENTS.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
SITES - OCCURENCE.	Sol -16			X			X	X	X	X	X	X					X	X	X	X	X	X	X
	Ala -51		X						X	X	X	X	X	X	X	X	X						
	Genoa, Nev.	X	X	X	X	X	X	X															
	Tilden Park 1										X												
	Tilden Park 2		X					X										X					
	Castle Crogs		X																				
	Ala -19				X						X						X						
ELEMENTS.		23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42		
SITES - OCCURENCE.	Sol -16									X													
	Ala -51		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	
	Genoa, Nev.	X																	X				
	Tilden Park 1					X	X								X								
	Tilden Park 2																						
	Castle Crogs																						
	Ala -19									X											X		

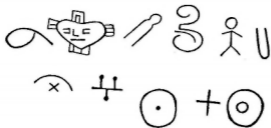
Table 1

ELEMENTS.		43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
ELEMENTS.																	
SITES - OCCURRENCE.	Sol - 16																
	Ala - 51																
	Genoa, Nev.	x						x									
	Tilden Park I																
	Tilden Park 2	x			x			x									
	Castle Craggs	x															
	Ala - 19	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
ELEMENTS.		58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73
ELEMENTS.																	
SITES - OCCURRENCE.	Sol - 16																
	Ala - 51																
	Genoa, Nev.				x												
	Tilden Park I							x	x	x	x	x	x	x	x	x	
	Tilden Park 2																
	Castle Craggs		x		x											x	
	Ala - 19		x	x		x	x										

Table 2



GENOA, NEV.



ALA - 51



SOL - 16

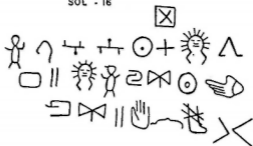


Fig. 1