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A COMPARATIVE DESIGN ELEMENT ANALYSIS OF KLAMATH BASIN (MODOC), SOUTHERN SIERRA (YOKUTS) AND SANTA BARBARA (CHUMASH) PICTOGRAPH STYLES, CALIFORNIA-OREGON

By B. K. Swartz, Jr. from [Selected Writings](#)

There are two fundamental assertions in the literature, the first being questionable and the second being erroneous, that this study wishes to address, namely (1) there are similarities (hence, perhaps, relations) with pictographs from northeastern California and the Santa Barbara-Tulare region, and (2) little has been recorded or is known about the pictographs of northeastern California.

In 1929 Julian H. Steward made the following casual observation on pictographs in northeastern California as a note in his comprehensive compilation of petroglyphs in the western United States:

".....there are a number of surprising resemblances [of the northeastern California pictographs] to the Santa Barbara - Tulare pictographs. These include the use of one color to outline the figure of another color, groups of short dashes or color, several insects, 'pelts,' rows of outlined triangles, and other figures strikingly like some found in Tulare County. On the other hand, several designs occur which are rather unique..... The many sun disks, angular figures, and others, as well as points of style, resemble much more the pictographs found north of California" (1929:221).

"The use of white to outline red [in northeastern California] however resembles the Santa Barbara - Tulare region" (1929:58-59).

It is clear that Steward compiled much of his study by use of secondary sources, rather from direct personal observation of the markings he describes and his comparative observations must be viewed in this light.

From this simple observation an elaborate web of citations developed:

The first note of this statement was by Cressman (1937:70). He included northeastern California within the Klamath Basin (a reasonable integration ignored by subsequent, usually California-based, writers except the author of this study, see following) and supported Steward's color outlining tie.

Nothing was heard about the issue until 25 years later when this writer (Swartz 1963:21-22, reprinted 1978; 1978:9) started the rapid proliferation of the citation web by quoting Steward's statement and considering his connection. Grant (1964:34) formulates initial style areas and mentions the occurrence of polychrome painting in northeastern California and Santa Barbara. Heizer and Clewlow (1973:34-35; 1978:623) provide detail, cite Steward and Grant and strongly support their contentions. Clewlow (1976; Clewlow and Wheeler 1978:25) suggest these similarities may be of a functional nature, perhaps related to fertility ceremonies. Wellmann (1979:69) cites and supports Steward, Swartz and Grant. Lee and Hyder (1988:134-35), based primarily on evidence from Fern Cave, Tlk-2 (AS-KCM), Mod-17 (UCAS), are the first to formally reject the relationship between northeastern California and Santa Barbara pictographs. I was unaware of their contention until I undertook the preparation of this study, which partially supports their conclusion.

In regard to the second assertion stated at the beginning, namely that little has been recorded or is known about the pictographs of northeastern California, Heizer and Clewlow using their own (UCAS) field records (1973:1) erroneously conclude that "In the extreme northeastern portion of the state of California (Modoc and Siskiyou counties) is an area with a heavy concentration of pictographs.....the painted art style of the region has yet to be intensively studied" (1973:34). This statement utterly ignores the work of Swartz (1963) which is not cited. Indeed, as I surveyed the published data I found the opposite of what one would think was the case. Despite a whole published volume of Santa Barbara (or Chumash) pictographs with elegant color plates by Grant (1965), the number of recorded panels is small and not in the core area. Heizer and Clewlow (1973, Figures 8-15, 74-90, 304-83) provide far more data on Tulare or Southern Sierra pictographs. A purpose of this paper, however, is to place on record an analysis of the extensive data compiled, but largely ignored, by Swartz (1963) on Klamath Basin pictographs which subsumes the northeastern California area. Only pictographs are being considered here. There are also extensive pecked, scraped and incised petroglyphs within the same region.

AN INTERNAL INDUCTIVE ANALYSIS OF KLAMATH BASIN PICTOGRAPHS

A total of 199 rock art sites were located by Swartz (1963) within the drainage of the Klamath River east of the Coast Range, or immediate environs. Of these 55 were or included pictographs. The bulk of these sites, 47, were concentrated in a more restricted core area and serve to provide the database for the following table. The most extensive locality, possessing 31 panels, is referred to locally at the time of this study as the "Jap Camp" (being located near a World War II Japanese relocation facility), Tlk-3 (AS-KCM), Mod-66 (UCAS). Another particularly significant site is Fern Cave, Tlk-2 (AS-KCM), Mod-7 (UCAS), previously mentioned. Other major sites are Symbol Bridge, MdL-2 AS-KCM, Sis-1 (UCAS), Old Keno Power Plant (Loring and Loring 1983:22), KIF-14 AS-KCM and MDo-148 AS-KCM, Sis-288 (UCAS). See Swartz 1978:45-47 for specific locations and listing of Klamath Basin sites.

The frequency distribution of inductively defined designs of all panels of the 47 Klamath Basin pictograph sites is compiled in Table 1 and illustrated in Figure 1. A sample of unusual pictographs is portrayed in Figure 2. An unusual blue pigment occurs on pictograph panels of remote northern Klamath Basin site (in the Klamath Marsh area), but is not present in any of the 47 selected localities and, therefore, is not included in Table 1.

Table 1

**DESIGN ELEMENT CLASSIFICATION AND FREQUENCY DISTRIBUTION
OF KLAMATH BASIN PICTOGRAPHS**

No.		R	B	W	O	C	P	Total
Naturalistic								
Human								
1.	Anthropomorphs	16	18	18	-	-	-	52
2.	Amorphous figures	1	1	-	1	-	-	3
3.	Pelts	-	-	1	-	-	-	1
Stick figures								
4.	Complete (heads)	8	9	-	4	-	-	21
5.	Incomplete	1	2	1	-	-	-	4
6.	Snakes (or pollywogs) - curved tails	1	1	2	-	-	-	4
7.	Lizards	1	1	-	-	-	-	2
8.	Insects	5	7	-	3	-	1	16
9.	Plants	2	2	-	5	-	-	9
10.	Medicine bag	1	-	-	-	-	-	1
11.	Segmented figures of vertical circles/ovals	1	-	-	-	1	1	3
Geometric								
Blobs to solid-colored circles								
12.	Plain	53	10	2	2	-	-	67
13.	External rays	-	3	-	1	-	-	4
Circles, outlined								
Isolated								
Simple								
14.	Solid outline	30	60	27	16	-	-	133
15.	Central interior dot (circle-dot)	-	-	-	-	-	3	3
16.	Multiple interior dots	-	2	1	-	-	-	3
17.	Multiple interior lines	-	-	-	-	-	3	3
18.	Multiple interior lines projecting beyond, "rain symbol"	-	1	-	-	-	-	1
19.	Dotted outline, central interior dot	3	2	-	-	-	-	5
Concentric								
20.	Double solid lines	7	4	-	3	-	1	15
21.	Central interior dot, solid lines (targets)	-	-	1	-	-	7	8
22.	External solid line, internal dotted line	1	1	-	-	-	-	2
23.	External solid line, multiple interior dots	-	1	-	-	-	-	1
24.	Triple solid lines	-	-	1	3	-	2	6
25.	Central interior dot (targets)	-	-	-	-	-	1	1
26.	Central interior dot, rayed	-	1	-	-	-	5	6
27.	Multiple interior dots	-	-	-	-	-	1	1
28.	Quadruple solid lines, central interior dot (target) ...	-	-	-	-	-	1	1
Segmented								
29.	Bisected	2	-	-	-	-	-	2
30.	Trisected	1	1	-	-	-	1	3
Quartered								
Vertical-Horizontal (plus)								
31.	Complete (four quadrants)	2	-	-	-	-	-	2
32.	Incomplete (three sections)	-	-	-	1	-	-	1
33.	Angled (saltire)	-	1	-	-	-	-	1
34.	Opposing segments filled in	-	-	-	-	-	1	1
35.	Interior rayed	1	1	-	-	-	-	2
36.	Central dot (spoked)	1	-	-	2	-	1	4
Concentric segmented								
37.	Internal circle bisected	1	-	-	-	-	-	1

38.	Both circles independently bisected	2	-	-	-	-	-	-	2
39.	Internal circle quartered	-	-	-	1	-	-	-	1
40.	Internal band rayed	2	-	-	-	-	-	-	2
	Rayed, ends open not forming								
	Projecting externally (may be clustered), "sun disks"								
	Multiple								
41.	Projecting externally (may be clustered)	10	9	3	4	-	1	-	27
42.	Central interior dot	1	11	-	1	-	3	-	16
43.	Central interior star	2	-	-	-	-	-	-	2
44.	Multiple interior dots	-	1	-	-	-	-	-	1
45.	Four projections (clustered), "rain clouds" ...	3	3	-	-	-	-	-	6
46.	Interior dot	2	-	-	-	-	-	-	2
47.	Circle, bisected	-	1	-	-	-	1	-	2
48.	Circle, concentric, internal circle segmented	-	-	-	-	-	2	-	2
49.	Projections overlap circle	-	1	-	-	-	-	-	1
50.	Two projections, "antennaed bugs"	6	2	-	2	-	-	-	10
51.	Interior lines	-	-	-	-	-	1	-	1
52.	Forked ends	-	-	-	-	-	1	-	1
53.	Central interior dot.....	-	-	-	-	-	1	-	1
54.	Blob	-	-	-	-	-	2	-	2
	Single								
55.	One projection	3	8	-	2	-	-	-	13
56.	Projection bisects circle	3	-	-	1	-	-	-	4
57.	Bisecting projection emerges from circle	-	1	-	2	1	-	-	4
58.	Exterior line tangentially touching circle	-	1	-	-	-	-	-	1
59.	Concentrically rayed, projecting externally and								
	internally (clustered)	-	-	1	-	-	-	-	1
60.	Loops, external (usually four)	1	1	-	-	-	2	-	4
61.	Grouped lineally	3	4	-	1	-	-	-	8
	Connected								
62.	Solid lines (through circles)	-	2	-	-	-	-	-	2
63.	Lines of dots	2	-	-	-	-	-	-	2
64.	Ovals outlining interior lines	4	1	-	1	-	1	-	7
65.	Squares outlining interior lines	8	4	-	2	-	1	-	15
66.	"Shields"	1	-	-	3	-	-	-	5
67.	Circularly arranged projecting lines	1	-	-	-	-	-	-	1
68.	"Asterisk"	-	-	1	-	-	-	-	1
	Lines								
69.	Single with off-set vertical lines	1	3	2	-	-	-	-	6
	Parallel								
	Straight								
	Unconnected								
70.	Horizontal	3	6	-	1	-	-	-	10
71.	Other	15	19	4	1	-	-	-	39
	Connected								
72.	Center	2	6	1	1	-	1	-	11
	Edge								
73.	Horizontal	1	-	-	-	-	-	-	1
	Other								
74.	Top, "rakes"	5	17	1	8	-	-	-	32
75.	Bottom	3	1	2	-	-	-	-	6
76.	Both edges, projecting ends, "ladders"	1	1	-	-	1	-	-	3
77.	Curved (arcs)	-	1	1	-	-	-	-	2
	Wavy to zig-zag								
	Single								
78.	Horizontal	23	28	1	12	-	1	-	65
79.	Vertical	13	10	6	2	1	-	-	32
	Multiple, parallel								
80.	Horizontal	13	15	-	10	-	3	-	41
81.	Vertical	4	11	7	3	-	-	-	25
82.	Stepped	1	2	-	1	-	-	-	4
83.	Crossed (grids)	1	4	-	1	1	-	-	7
	Triangles								
	Horizontal								
	Points down								
84.	Single row	4	4	-	1	-	1	-	10
85.	Tiered	-	1	-	-	-	-	-	1
	Points up								
86.	Single row	2	3	-	-	-	2	-	7
87.	Enclosed between lines	1	1	-	-	-	-	-	2

	Vertical								
88.	Single row	2	2	-	-	-	1		5
89.	Tiered	-	1	-	-	-	-		1
90.	Diamonds, horizontal	1	3	-	3	-	-		7
91.	Triangles/Diamonds, centrally aligned	2	4	-	1	-	-		7
92.	"Rain symbols" in a row	1	3	-	-	-	-		4
93.	"Chevrons"	-	1	-	1	-	6		8
	Dots								
	Lineal								
94.	Single, straight	8	7	3	-	-	-		18
	Parallel								
95.	Straight	4	5	1	-	-	-		10
96.	Curved	-	3	-	-	-	-		3
97.	Fields	-	5	1	-	-	-		6
98.	Designs.....	9	12	5	-	1	-		27
99.	Dot and line	-	6	-	-	-	-		6
100.	Dots with pair of projecting lines	13	-	-	-	-	-		13
		%	34.10	R - red					327
			37.96	B - black					364
			9.80	W - white					94
			11.16	O - orange					107
			.62	C - color indeterminate					6
			6.36	P - polychrome (including bichrome) .					61
				Total					959

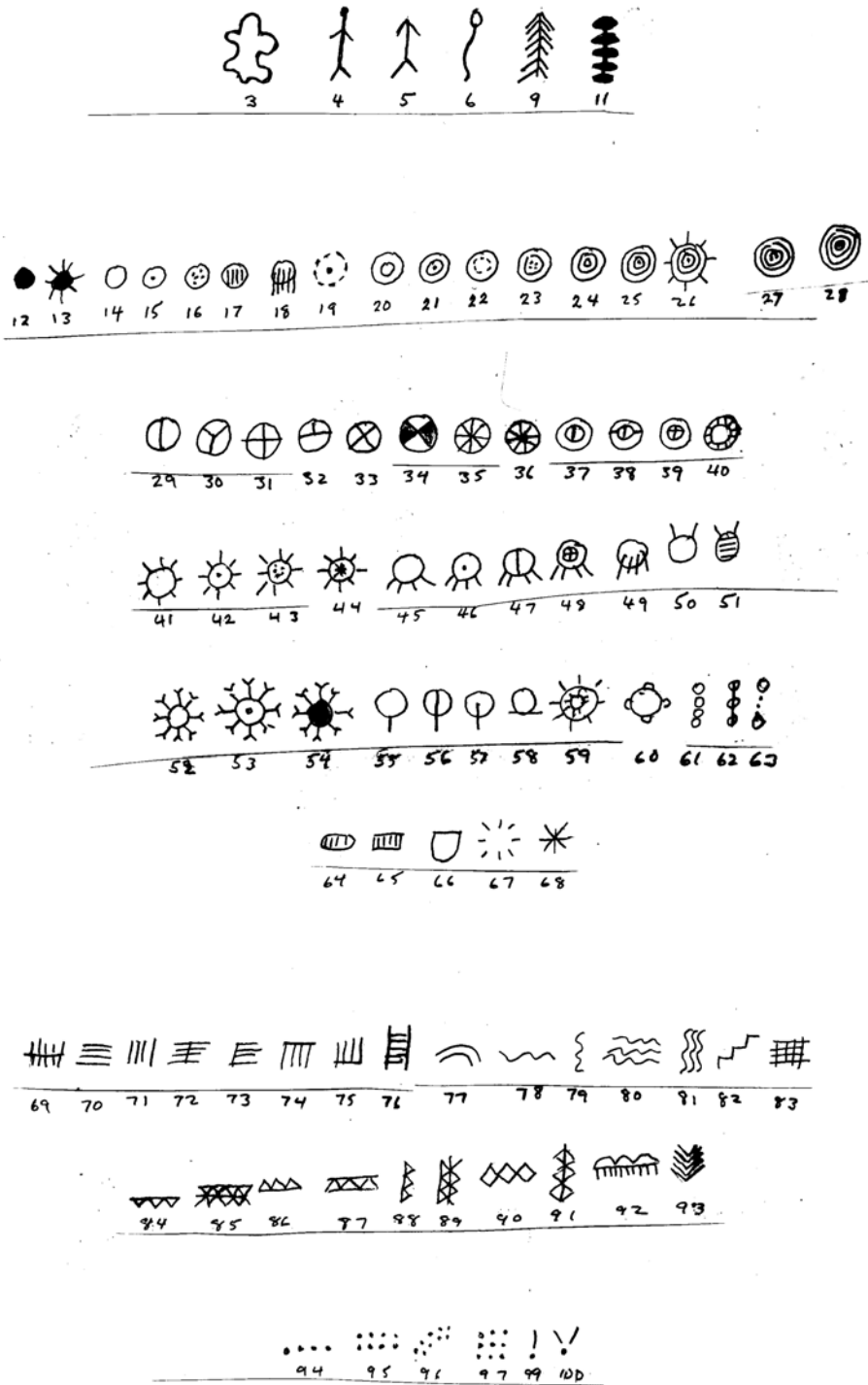


Figure 1



Figure 2

The following table is a concordance of design elements identified in the above analysis compared with examples published in California and Great Basin sources. Only Fenenga (1949) and Nissen (1982) numbered their individual design elements. Numbering of the others is by sequence of illustration. With the exception of Nissen there is no distinction made between pictographic and petroglyphic elements, but it can be assumed from context that Grant's examples are pictographic. Nissen's are petroglyphic. However many of Nissen's designs resemble pictographic examples and her extensive "motif index" is far more detailed than anything else in print. Some elements in the area of study, especially concentric circles, are both pecked and painted, showing a relationship between the two methods of rendering. Numerous concentric circles are pecked and painted at Paradise Valley near Bly, Oregon, QzM-1 (AS-KCM), a site within the Klamath Basin but not included in this study due to its marginal location (Swartz 1963:229-30, Fig. 75; 1978:Plate 3i; Grant 1965:101; Loring and Loring 1983:28, Fig. 169). Since (1) there are overlapping occurrences of similar and/or identical petroglyph and pictographic design elements and (2) painting of petroglyphs is present in the area, I have decided to use Nissen's detailed classification for comparative purposes although it is restricted to only petroglyphic representations. A comprehensive pictographic "motif index" is needed and the Sw column categories in Table 1 might serve as an initial compilation.

Table 2

A CONCORDANCE OF CALIFORNIA AND GREAT BASIN
ROCK ART DESIGN ELEMENTS

Sw	Ni	Lo	Fe	St	Gr
1	530	-	-	-	-
3	418	53	19	-	14
4	490	-	-	-	-
5	324/	-	-	-	-
			325		
6	61/	-	-	-	-
	711	-	-	-	-
7	481	47	34	-	-
8	470	44a	-	-	-
9	380	54	-	-	3
10	635	-	-	-	-
11	-	-	-	-	12
12	9	-	-	-	-
13	151	-	-	-	-
14	1	9	-	8	-
15	3	14	-	13	-
20	5	-	21	-	-
24	6	15	16	12	-
25	-	72	-	-	-
28	7	-	-	-	-
29	pt42	5	-	-	-
30	11	-	-	-	-
31	12	-	-	-	-
36	13/	67	-	-	-
		14/		-	
		15		35	

39	21	-	-	-	-
41	150/	70	-	-	-
		158			
53	-	-	-	-	cf35
58	60b	-	-	-	-
61	108	-	-	15	cf23
62	101	12	30	-	-
64	pt46	-	-	-	-
65	252	-	-	-	-
67	303	-	-	-	-
68	310	69a	-	-	-
70	201	-	-	-	-
71	204	61	-	27	27
72	320	-	37	23	-
74	330*	57	-	20	-
76	321a	46	-	24	33
77	134/	-	-	-	-
		135			
78/	160/	74/	22/	1	-
	79	290	75	23	
80/	162/	-	14	-	15
		81	293/		
		294			
83	244	35	8	33	-
84/	272/	59	-	22	19
		85	274		
87	264	-	-	-	-
90	284	26	13	21	-
91vt	287hz	-	-	-	-
92	343	56	11	-	-
93	223	16	-	28	1
94	31	28	26	-	-
95	32	-	-	-	-
97	33/	29	-	25	10
98	37	-	-	-	-

* 331 to 339 and 342 also possible inclusions

Sw - Swartz, this paper, Ni - Nissen (1982:389-448), Lo - Loring and Loring (1983:ix-x), Fe - Fenenga (1949:Fig. 2), St - Steed (1976:86, Table 1), Gr - Grant (1965:79, Fig. 69).

PUBLISHED DESCRIPTIONS OF KLAMATH BASIN DESIGN ELEMENTS

1. ANTHROPOMORPHS

rare (Grant 1964:34); not common (less than 20%) (Heizer and Clewlow 1973:35); fantastic, with ceremonial paraphernalia (Clewlow and Wheeler 1978:24) Common.

3. "PELTS"

(Steward 1929:221); brightly colored of small animals (Clewlow and Wheeler 1978:24) Virtually not present, probably overlapping with 2 - Amorphous figures.

4. COMPLETE STICK FIGURES?
angular figures (Steward 1929:221)

8. INSECTS
(Steward 1929:221); occasional (Grant 1964:34); weird (Clewlow and Wheeler 1978:24);
remarkable (Clewlow 1978:623)

15. CIRCLE-DOTS
rare (less than 20%) (Heizer and Clewlow 1973:35)

18. "RAIN SYMBOLS"
(Wellmann 1979:69) No, see his own plates 276-81.

20- CONCENTRIC CIRCLES
28 (Grant 1964:34)

41. "SUN DISKS"
(Steward 1929:221; Grant 1964:34)

42. CIRCLE-DOT "SUN DISKS"
(Heizer and Clewlow 1973:35) They may be referring to unrayed circles as sun disks.

84- TRIANGLES

89. triangles, zig-zags (Grant 1964:34; angular elements
(Heizer and Clewlow 1973:35)

94- LINES OF DOTS

96. many dotted lines (Grant 1964:35); (Wellmann 1979:69)

97. FIELDS OF DOTS

groups (Wellmann 1979:69)

ONE COLOR TO OUTLINE (A FIGURE OF – STEWARD) ANOTHER COLOR (Steward 1929:221; Cressman 1937:70), THE USE OF WHITE TO OUTLINE RED (Steward 1929:58-59)
There are 25 occurrences of color outlining of concentric circles. "Chevrons," zig-zags and lines are also outlined.

GROUPS OF SHORT DASHES OF COLOR (Steward 1929:221)

Steward may be referring to the long lines of white dots in Fern Cave, Tlk-2 (AS-KCM), Mod-17 (UCAS). Lee and Hyder (1988:134) document Steward's (and subsequent writers) erroneous statements of red and yellow pigments being used at Fern Cave. The use of yellow (or orange) may be a confusion of Fern Cave with Jap Camp.

MOST ARE DONE IN RED, IN A FEW CASES THERE IS POLYCHROME PAINTING (Grant 1964:34)

Red is not dominant, but is equaled by black pigment.

The percentages are 36.3% for red and black, 10.7% orange, 9.0% white, 6.8% polychrome and .5% of indeterminate color. These percentages differ slightly from the Table 1 calculations in that they include applications that could not be identified as to design element representation.

REGIONAL COMPARISONS

The efforts of past researchers to establish cultural connections between different regions by using stylistic similarities can be questioned on methodological grounds. Indeed, material culture revealed from archaeological recovery presents a very narrow spectrum for reconstructing cultural systems or general culture history. With these limitations in mind, however, discernment of past cultural patterns should be attempted with the evidence we do have.

To make detailed comparisons of Klamath Basin pictographs with those of Santa Barbara and the Southern Sierra (Steward's Tulare region) (Figure 3) specific illustrated design elements were counted and tabulated. For the Santa Barbara area I planned to restrict the area to be used in the compilation to coastal mainland Canalño territory, but found that few recorded panels were present in this core area. Using illustrations in Grant (1965) design elements from the entire Chumash speaking area were tabulated. Figures 304 to 383 from Heizer and Clewlow (1973) were tabulated (Table 3) for Southern Sierra design elements. Sites from Fresno and Kern counties were excluded from the compilation due to their more marginal location.

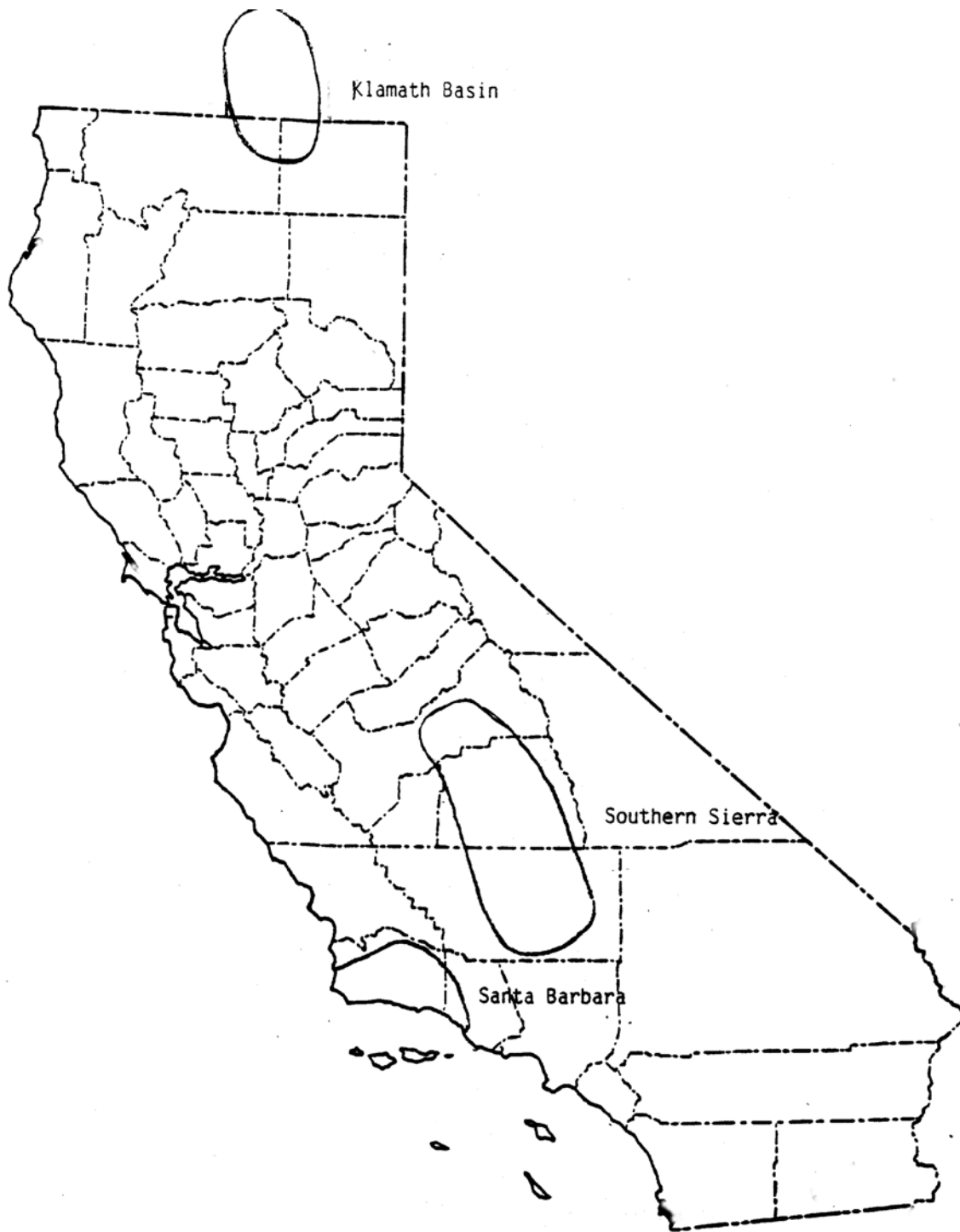


Figure 3

Table 3

**COMPARISON OF KLAMATH BASIN, SOUTHERN SIERRA
AND SANTA BARBARA PICTOGRAPH DESIGN ELEMENTS**

Design Element	KB	SS	SB
"Mandelas"	absent ¹	rare	common
peripheral triangles		absent	present
peripheral cogs		absent	present
spokes with concentric circles		present	present
Clustered circles	absent	rare	uncommon
Spirals	absent	common	absent
Circles with numerous spokes (over 8)	absent	present	absent
Circles of dots	present	absent ²	absent
Long lines formed of small circles	rare ³	present	present
Circles linked by lines	rare ⁴	present	rare
Circles with interiors of non-circularly arranged dots	present	rare	absent
"Rain circles," usually 4 or 5 bottom rays	present	rare	absent
Isolated "horned" circles	present	absent	rare
Concentric circles with over 5 lines, center dot	absent	present	present
Circle-dot sun disks	common	rare	rare
Short-tailed circles	common	present	rare
Concentric rayed circles	present	present	rare
Lines of triangles	common	absent	rare
Multiple zig-zags	common	rare	rare
Stick figures	common	common	rare ⁵
Pelts	rare	common	rare
"Rain" signs	present	present	absent
Checkerboards	absent	absent	present
Block fields of dots	present	rare	rare
Dot designs	present	uncommon	uncommon
"Shields," with lined decoration	absent	present	absent
Hands/paws	absent	common	rare
Segmented figures	chevrons	rare	rare ⁶

1 though multiple concentric circles occur rarely

2 also grouped circles occur rarely

3 of larger size

4 usually linked by lines of dots

5 on less elaborate panels

6 lineal feathering common, nested chevrons

CONCLUSIONS

From inductive generalization one concludes that the focus of Klamath Basin pictographic design content is the zig-zag line and triangle, often aligned; the focus of the Santa Barbara pictographic design content is the common occurrence of elaborate "mandelas." A focus for Southern Sierra pictographs is not apparent. A theme that runs through all three styles is concentricity, and it is this characteristic that was subjectively noted by earlier investigators. Does this feature suggest some common historical base or functional expression, or is it a product of limited possibilities? Published illustrations of Santa Barbara panels indicate greater elaboration and more frequent polychrome rendition, but this may be caused by a selective factor that favors complex panel recording.

Other distinctive Klamath Basin painted design elements include abundant circle-dots and circle-dot sun disks, circles with interiors of dots in non-circular patterns, simple (less rings) concentric circles, "rain" circles and figures, and block dot fields. Distinctive Southern Sierra design elements are spirals, circles with numerous spokes (over eight), pelts, "shields" with lined decoration, and hand/paw designs. Distinctive Santa Barbara design elements are checkerboards, and the scarcity of stick figures (especially on elaborately decorated panels).

Though Steward's 1929 observation was perceptive a content analysis of the design element data does not present a convincing case of relationship of these disparate California-Oregon pictograph traditions.

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