

# ANTHROPOLOGICAL PAPERS OF THE AMERICAN MUSEUM OF NATURAL HISTORY

VOL. XX, PART II

---

BASKET DESIGNS OF THE MISSION INDIANS OF  
CALIFORNIA

BY

A. L. KROEBER



NEW YORK  
PUBLISHED BY ORDER OF THE TRUSTEES  
1922



**BASKET DESIGNS OF THE MISSION INDIANS OF  
CALIFORNIA.**

**By A. L. Kroeber.**





## CONTENTS.

	PAGE.
The "MISSION" TRIBES . . . . .	153
CHARACTER OF THE BASKETRY . . . . .	153
MATERIALS AND THEIR RELATION TO DECORATION . . . . .	154
TECHNIQUES . . . . .	155
TYPES OF BASKETS . . . . .	156
THE BASKET HAT . . . . .	157
THE BASKET MORTAR . . . . .	158
DECORATED BASKETS . . . . .	159
TEXTURE AND DESIGN . . . . .	161
DESIGN ELEMENTS . . . . .	163
Crosses and Related Rectangular Figures . . . . .	163
Other Rectangular Designs . . . . .	165
Rectangles Flanked by Right-Angled Triangles . . . . .	165
Eyed Diamonds . . . . .	165
Simple Diamonds . . . . .	165
Flare Designs and Patterns . . . . .	165
Diagonal and Other More or Less Asymmetrical Designs . . . . .	166
Asymmetrical Design Elements . . . . .	168
Flares Made Asymmetrical . . . . .	168
Asymmetrical Diagonals and Drifts . . . . .	170
Various Triangular Designs . . . . .	172
Double or Alternating Designs . . . . .	172
IRREGULARITIES OF COLOR AND SHAPE . . . . .	173
PATTERNS AND THEIR ARRANGEMENT . . . . .	175
CHUMASH WARE . . . . .	177
MUSEUM NUMBERS AND TRIBAL PROVENIENCE . . . . .	181

## LIST OF ILLUSTRATIONS.

### PLATES.

- I. Patterns on Shallow Baskets.
- II. Patterns on Round and Deep Baskets.
- III. Mottled and Irregular Patterns.
- IV. Uneven and Mottled Pattern Effects.
- V. Chumash Basket with Small Neck.
- VI. Chumash Patterns.

### TEXT FIGURES.

	PAGE.
1-42. Design Elements . . . . .	164
43-84. Design Elements . . . . .	167
48, 49, 75, 77, 78, 84. Elaborated Designs . . . . .	169
85. Semi-naturalistic Pattern . . . . .	171
86. Asymmetrical Designs unevenly Arranged . . . . .	174
87. Pattern Arrangement with Broken Balance . . . . .	174
88-97. Design Elements on Chumash Baskets . . . . .	178

## THE "MISSION" TRIBES.

The so-called Mission Indians of southern California include the Southern and Northern Diegueño; the Cupeño; the Desert, Pass, and Mountain Cahuilla; the Luiseño; the Juaneño; and the Gabrielino and Fernandeseño. The Diegueño are Yuman; all the others Shoshonean. The several Serrano divisions, whose habitat adjoined that of the foregoing groups on the north, were also more or less brought under the missions; but so far as basketry is concerned, their affiliations have not been determined. The more remote of the Serrano, such as the Kitane-muk, made baskets of the San Joaquin Valley rather than southern California type, as might be anticipated from their location. In general, the Mission Indians comprise all the groups in American California south of Tehachapi Pass except the Chemehuevi and the Yuman tribes of the Colorado River.

The Chumash to the west of the Gabrielino adhered to the southern California culture, and their basketry is similar. It presents certain distinctive traits, however, and as it is a dead art represented by a small number of preserved specimens, whereas most of the other southern Californians still make baskets in numbers, a separate subjoined consideration of Chumash ware and designs seems advisable.

The basketry of the groups enumerated as Mission tribes in the preceding paragraph is so substantially uniform as to allow of its treatment as a unit, without consistent reference to provenience of pieces.

There were five missions—San Diego, San Luis Rey, San Juan Capistrano, San Gabriel, and San Fernando—in the territory of what are now popularly known as the Mission Indians. Or, if the Chumash are included, the number becomes ten. The number of Franciscan establishments in California however was twenty-one. The Indians attached to the eleven from San Miguel northward—Salinan, Costanoan, Coast Miwok, and other groups—are not known today as Mission Indians: they have died out or become obscure through insignificant numbers. The term which appears in the title to this paper is therefore historically rather unjustified and misleading; but it is fixed in public, governmental, and trade usage.

## CHARACTER OF THE BASKETRY.

Mission basketry is marked by a certain paucity in every trait except several aspects of decoration. The weaves and materials are remarkably limited. The forms are not numerous. The texture is often mediocre. The art is plainly a half-slighted one; not always on the part

of the individual, of course, but as a social development. As compared with the remainder of California, this condition is an approach to the status of basketry in the Southwest, and only one of many indications that native southern California must be regarded as culturally affiliated with Arizona and New Mexico rather than with central and northern California. The causes of the decadence or lack of development of basketry among the Pueblos are not far to seek: an old and flourishing pottery industry; textile proficiency carried primarily into loom manufactures; town life; and an expansion of schemes of social and religious systematization as contrasted with mechanical interests. With the non-Pueblo tribes of the Southwest, and still more among the southern Californians, these influences begin to diminish in strength; but something of the Pueblo cultural attitude has undoubtedly carried over to them; besides which the pottery art prevailed. The mere non-use of baskets for cooking purposes must have reacted unfavorably on a high development of basketry among the Mission tribes as compared with the other Californians.

#### MATERIALS AND THEIR RELATION TO DECORATION.

The materials of southern California are substantially only three. The grass *Epicampes rigens* is almost invariably the foundation of coiled ware. For wrapping, either sumac, *Rhus trilobata*, or a *Juncus* rush—the species is variously given by botanists—are employed. The rush is also occasionally made use of as a foundation material. Among the Chumash this is the prevalent practice. The rush is also the normal material for both warp and weft in twining. The palm, *Neowashingtonia filamentosa*, is sometimes used as wrapping. This may be a modern practice. If ancient, it was probably chiefly confined to the Cahuilla of the Palm Springs region. It is to be noted that willow, which many other peoples find so serviceable both for warp and weft in twining and coiling, is not used by the tribes under consideration, although it is a common material among the Chemehuevi and Panamint who adjoin them on the northeast, and was used for certain types of vessels by the Chumash to the west.

The *Juncus* rush comes in a variety of colors. This fact is made use of in Mission basketry decoratively as well as technically. One of the outstanding traits of this ware is the prevalence of mottled surfaces. This device appears to be made use of more frequently in modern baskets, especially those intended for sale to Americans, than formerly; but it is not wholly a recent development. The varieties of the *Juncus*

stems provide a variety of colors: cream white, buff, light brown, dark brown, lemon yellow, a distinct red, and an olive. The only color, in fact, which these tribes found it necessary to produce artificially was black. This was obtained either from the elder tree or from a species of *Sueda*. These dyes seem to have been applied rather to sumac than to the rush wrapping.

Many mottled baskets show half a dozen or more perceptibly different shades of *Juncus*. So far as definite patterns are concerned, three colors seem to be the usual limit in any one vessel. This allows two colors for the pattern proper and one for the background. At that, baskets made by the southern Californians for their own use more frequently show only two colors—one for background and one for pattern—than three. But the triple combination does occur in old pieces, and is fairly frequent in those which may be considered as having been made primarily for display or sale.

There would be nothing remarkable in this use of color were it not that in other respects Mission basketry is so restrained in its means. Tribes in central California that manufacture a much finer ware than the southern Californians, and use basketry for a greater variety of purposes, often refrain consistently from employing more than one pattern color in one vessel. Thus the Pomo, Maidu, Washo, and Miwok, while they use both black and red on a white or buff background, make a point of not introducing both the black and the red materials in the same basket. The Yokuts use black and red patterns with effect, but on baskets that are much neater and finer than those of southern California. The overlaid twining of northern California also shows double color patterns, but restricts them to definitely decorative pieces: the great majority of vessels show only one color besides the background. We must conclude therefore that the use of double color patterns among the Mission Indians is significant of a flourishing of the æsthetic side as compared with a poverty of the technical and practical aspects of their basketry; and, specifically, that they were stimulated by the unusually convenient opportunities afforded by the diversity of shades furnished ready to hand by the *Juncus*.

### TECHNIQUES.

Technologically, southern Californian ware is remarkable for its limitation to one of the many possible varieties of twining and one only of the numerous types of coiling. Coiled ware is much the more important. Twining is employed only for seed-beaters, leachers, and rough

household utensils. It is never patterned, and at least normally is openwork. All this ware seems deliberately crude. The majority of these plain twined vessels double or multiply or zigzag or cross the warp somewhere or other, but rarely follow any of these plans consistently. They seem rather to prefer to shift from inch to inch, or stitch to stitch, from one of these modifications to the other, or to the use of single straight warps. The guiding motive appears to be to work as rapidly as possible while preserving the interstices approximately equal in area. In connection with the present decorative examination, the twined basketry can therefore be wholly eliminated.

Coiling is invariably on a foundation of multiple stems, to which use the long slender *Epicampes* grass lends itself admirably. There is no coiling on three rods, single rods, combinations of rods and welts, nor in fact on any woody materials. This is again a positive and significant limitation, whose interest in the present connection is that it appears not to have extended its influence upon design development.

An occasional woman's cap twined diagonally furnishes an exception to the rule just laid down that Mission basketry is wholly in plain twining or multiple foundation coiling. These diagonally twined caps were undoubtedly made by the Mission tribes, but there can also be no question that they are due to the influence of the Shoshoneans of the Great Basin, conveyed to the coastal regions of southern California through the Chemehuevi. The typical cap among the Mission tribes is coiled. At least some of the tribes seem to possess distinct names for the two types of headgear. There is little doubt that the coiled cap, in addition to being the standard form, is also the older one. In fact the diagonally twined one may prove, if ever the point is looked into, to have been introduced within the span covered by native tradition.

Although southern California is a country of cane, whose readily made splints so often stimulate a development of checker and twilled weaves, the Mission tribes are not known to have practised these quick-working techniques.

#### TYPES OF BASKETS.

The forms or types of southern California baskets are few but present several points of interest. The twined varieties may be dismissed briefly. The commonest at the present day are a small globular basket and a small tray, both of course in openwork. The latter may be the same as what has been called a leaching basket. The seed beater is made of a few wooden rods with its textile construction reduced to a minimum. It is in fact a basket only by the utmost stretch of the term.

A small-necked bottle is reported to have been used by the Cahuilla and very likely extended to the other tribes. No specimen seems to have been preserved. It may be inferred that this was a twined vessel, but its precise type cannot yet be reconstructed. The Chemehuevi and people to their north and east make a water jar which is diagonally twined and has a pointed bottom. It is evidently intended primarily for transport. The Chumash water bottle was flat-bottomed, plain twined, of willow, coated inside with asphalt, and undecorated on the exterior except for occasional courses of three-strand twining. This vessel evidently served essentially for the storage of water. The other Mission tribes may have made their water bottles in either the Chemehuevi or Chumash style, or may have differed locally among themselves. Being a pottery-making people, it is likely that they did not much depend on basketry in this connection except perhaps when they went on journeys; in which case the Great Basin type of vessel would more probably have been the kind which they made.

Among coiled baskets there are two varieties which are of interest because they are lacking in central California but reappear in the northern part of the state. This distribution might lead to the hasty inference of the diffusion of the utensils from north to south or south to north, and their subsequent going out of use in the middle region. Analysis, however, reveals that the case is not so simple.

#### THE BASKET HAT.

Thus the typical southern California cap or hat is coiled, large, and high. The northern California cap is twined, pliable, rather low, and barely large enough to fit the crown of the head snugly. The styles of decoration of the two regions are thoroughly diverse. The use also is different. The northern cap is worn only by women, and has become a habitual article of dress. Thus the Yurok woman often keeps her cap on indoors, and certainly would not think of going off anywhere without it. The southern California cap is a direct reaction to the pull and chafe of the carrying-net across the forehead. It is probably for this reason that it is stout and stiff and comes pretty well down over the eyes. It is not an article of dress, being put on only when a load is taken up. Carrying being essentially woman's work, the cap has feminine associations, but these have remained uncrystallized. When the Mission Indian man slings a load on his shoulders, he puts on his wife's cap.

At every specific point therefore the northern and southern caps are so different that any offhand derivation of them from a common source

is out of the question. They may possess completely independent origins and developments. On the other hand it is possible that they go back to a common source from which a defunct cap of central California and the surviving cap of the Great Basin were also derived. Even if such were the case, however, it is clear that the southern California caps must have followed an independent history for a long time past. On the whole the pronounced use of hats and caps in the North Pacific Coast region points to an origin of the custom there, with perhaps a diffusion up the Columbia into the Plateau and Great Basin area; and that the southern Californian cap is either a local modification of the idea derived at some time in the past from the Great Basin, or an entirely independent development.

#### THE BASKET MORTAR.

The basketry hopper or rim for the stone mortar is another utensil made by the peoples of southern and northern California but not used in middle California. Here again independent origins, or at least a long separate course of development, must be inferred. The southern mortar is coiled, the northern one twined. Like the northern cap, the northern hopper is pretty definitely a part of the overlaid twining art. It extends little farther than the technique, materials, and shapes of this art. The one notable exception is provided by the Pomo, whose basketry is quite distinct but who yet use the hopper. So far as tribes like the Maidu and Yana use the hopper, it seems to be an outright borrowing from the north, as the recurrence of the northern materials and technique indicates. Occurrence of the hopper among the Pomo may also be due to an extension from the north, but with a modification of the implement due to the fact that the introduction of the idea encountered a more vigorous and diversified art among this group than the Maidu possessed.

The distinction between the northern and southern types is further accentuated by the difference in use. The southern Californians fasten the hopper to the edge of a more or less globular mortar of stone by means of asphalt. The northern Californians do not use mortars. They pound acorns and seeds on a flat slab on which the hopper is loosely set. It will be seen that this northern method of pulverizing food makes the hopper indispensable. Without it the particles would scatter widely. The southern hopper is more or less supernumerary, especially since the hole in the stone is usually rather deep. In fact many more southern mortars are used without the basketry hopper than with it.



The entire history of the hopper is closely linked with that of the mortar and metate throughout California. In general it may be said that while portable mortars of stone were at one time extensively used in all parts of the state as shown by archaeological discoveries, they are not and have not been employed by any of the historic tribes except those of southern California. Their place is taken in the greater part of central California by mortar holes in bedrock granite, and in the Pomo and northwestern regions by the flat slab and basketry hopper. This pounding slab is probably in a way related to the metate, which occurs over the whole of the state except in the area of which the pounding slab is characteristic. In short, it would seem that the portable mortar and the undressed metate are generic elements of ancient Californian civilization, the mortar perhaps being the older of the two, inasmuch as it alone has been found in prehistoric northwest sites. For some reason the mortar went out of use everywhere except in the south, being replaced over the greater part of the state either by the bedrock mortar or the metate or both. The Pomo and northwestern tribes however adopted neither of these devices outright. Instead they accepted the idea of the slab but continued to pound rather than rub their acorns and seeds, devising the hopper to make this process feasible on the unholed stone. Southern California probably accepted the metate at a remote period, retained the portable mortar alongside of it, and then more or less hesitatingly added the basketry rim to the latter. In view of this history it would seem that the probability is fairly strong that the southern Californian hopper originated rather independently; possibly without even a suggestion of the idea from the north.

#### DECORATED BASKETS.

In spite of their significance for developmental problems, neither the cap nor the hopper of southern California evince any considerable tendency toward ornamental treatment. They need not therefore be further considered in the present discussion. Four other types of coiled Mission basketry can be recognized, all of them normally decorated with patterns. These may be designated as a shallow, a flat, a large truncated, and a small spherical basket.

The flat, circular tray and the shallow, bowl-shaped basket differ in use, but show no perceptible difference in design or design arrangement. The flat tray is considerably used for sifting; the bowl-shaped form is rather a container and serves for parching. Both forms are occasionally made oval, but this form is unusual, and no oval pieces have been noted in actual service in Indian hands.

The deep basket has the form of a truncated cone, is from one to two feet across the opening, and from a half to two-thirds as much across the bottom and in height. It has the approximate shape of the baskets which in central California are used for cooking food, but it is not ordinarily used for this purpose, pottery taking its place. It serves as a general receptacle and for transportation. In this latter capacity it is the equivalent of the conical basket which, either in open or close twining, is the normal burden carrier throughout north and central California. The southern deep basket differs radically in being flat bottomed and coiled. Slung behind the shoulders by a mere packstrap passing over the forehead, it would be most unsatisfactory. On account of its comparative shallowness, it would work up or down and fall out of the strap. It can be employed for burdens only with the added device of the carrying net, a sort of hammock-like enlargement of the carrying strap, within the bag of which the basket is held. It would seem therefore that this type of southern basket is an ancient cooking vessel, which on account of a simplification of the basketry art or a failure of specific development, came also to be used for carrying. Whether the carrying net represents a reaction to this reduction in the number of basket types, or is itself a cause of the disappearance of the specialized burden basket, is difficult to determine. In any event, the introduction of pottery was no doubt responsible for the loss of its cooking functions by the combined cooking-carrying utensil; with the result that this vessel now has a shape which everywhere else is associated with cooking-baskets and a use which elsewhere is associated with baskets of quite different form.

The globular basket is much smaller than the type just described, and serves to contain various small articles about the house. It may be described as having the shape of a sphere with the top and bottom sliced off. The mouth is therefore smaller than the belly. The greatest diameter is sometimes at the middle of the height, in other cases nearer the bottom. The constriction at the mouth suggests that this type is the equivalent of the so-called bottle-necked basket made by the Yokuts and adjoining tribes. The Chumash furnish the transition that connects the two extremes. The Chumash vessels are flatter than those of the southern Mission tribes; that is, they retain the same base and opening and height with an augmented diameter in the middle. There is also often a slight neck consisting of one or two or three courses of coiling. The Yokuts bottle-neck, again, may be looked upon as the Chumash shape modified by having the lower part of its belly straightened into a truncated cone; the upper part into a horizontal shoulder, whereas the

neck is lengthened and caused to flare. The historical unity of this morphological series is confirmed by the fact that the coiling of all flat, shallow, or truncated Mission baskets winds clockwise, as the hollow of the basket is looked into, whereas in the spherical baskets it turns anti-clockwise. The same distinction is observed among the Chumash and Yokuts, whose bottle-necked types also differ from all other ware in being built on an anti-clockwise coil.

These three or four standard basketry shapes might be expected to have developed somewhat distinct types of pattern disposition. On the whole however they run rather uniform. There is some tendency for the flat and truncated forms to be decorated with concentric or horizontal pattern bands. The spherical baskets evince a greater proclivity toward diagonal designs and detached masses or blocks of figures. Nevertheless, if a sufficient number of pieces is examined, it will be found that every kind of pattern arrangement appears on every type of basket.

#### TEXTURE AND DESIGN.

The finish of southern California ware is variable, but the work must be described as rough. Coils are almost always from one-sixth to a quarter of an inch thick. The wrapping comes in fairly wide strips, and is rarely crowded closely together. It is an exceptional basket in which the grass foundation does not show plainly between stitches of wrapping. The number of stitches per horizontal inch runs from 5 to 18. The stitches, it must be admitted, are put in fairly evenly, and the coils preserve their thickness with steady uniformity. All that this means, however, is that some care is taken to split the sewing material into strips of even width. To maintain uniformity of the diameter of the coil is of course easy when this foundation consists of a large number of slender stems whose number can be added to or diminished at will.

Pima, Papago, and Apache basketry is usually built of even heavier coils than that of southern California, but directs more effort toward having the edges of the sewing material in contact. It is usually difficult to see the foundation in the ware of these Southwestern tribes, whereas in southern California the foundation material can generally be identified by inspection without the aid of a knife. Chumash ware also surpasses that of the Mission tribes in this respect; in addition to which it usually employs somewhat finer coils. The basketry of the San Joaquin Valley and Sierra Nevada Yokuts and their adjacent Shoshonean neighbors also runs to thin coils and closely contiguous stitches of sewing. The Chemehuevi, too, although they work in other materials, have a feeling for neatness in these respects.

The result of this comparison is to stamp southern Californian basketry as coarse and slovenly. This tendency can almost certainly be connected with the poverty of weaves, materials, and shapes. It also affects ornamentation to the point of tending to produce larger figures than are customary elsewhere. It has not however influenced the imaginative qualities of design nor their complexity. In short, Mission basketry is self-limited and stunted in every technical aspect, but has retained definite vitality and accomplished a number of innovations on the aesthetic side.

The cause of this differentiation is hard to understand, especially inasmuch as the southern Californians are not known to have developed any conspicuous interest or success in decorative treatment of other objects. Their pottery, for instance, is of the Yuma-Mohave type, slightly inferior technically, and very inferior, in fact almost negative, decoratively.

About the only explanation that it seems possible to suggest for this isolated flourishing of the decorative impulse, is that it may be connected with the very coarseness of stitching and with the peculiar qualities of the *Juncus* material. It is characteristic of Mission basketry that it avoids the use of solid masses of color. Tribes whose baskets and patterns are absolutely smaller, do not hesitate to introduce larger design areas. However great the surface over which a Mission design or pattern spreads, it tends to be broken up by the introduction of patches or smaller areas of the shade of the background or in a second color. The naturally varying shades of the *Juncus* seem to have pointed the way here. A worker who did not take particular pains to the contrary must frequently have produced mottled baskets. The habit of seeing vessels of this appearance would accustom the southern Californians to the effect, and unless there were a positive inhibitive tendency—and of this there is no evidence,—the wontedness might sooner or later lead to effects in mottling being deliberately sought. This mottling effect might remain irregular and confined to the background, or again, be directed toward definite effects in the pattern proper.

In the same way the largeness and wide spacing of the stitches must have given the Mission weavers a feeling for the influence of the individual stitch on the æsthetic appearance of the basket as a whole. Such a feeling would scarcely be acquired by a woman operating on a finer scale. In fine ware, the single stitch is too small to affect the eye and mind other than on a minute examination; and to this baskets are not ordinarily subjected. A single stitch in fine ware, in other words, if it showed

at all, would tend to appear as an irregularity or blemish. In the coarse ware of the south, on the other hand, there is enough mass to each stitch to give it an identity. This fact would probably lead, now and then, to a utilization of the single stitches or small groups of them for purposive effect, in breaking a monotonous background. From this it would be only a step to breaking up or internally elaborating designs. The mental habits established by seeing and operating in mottled effects would of course come more or less to coincide and work in the same direction.

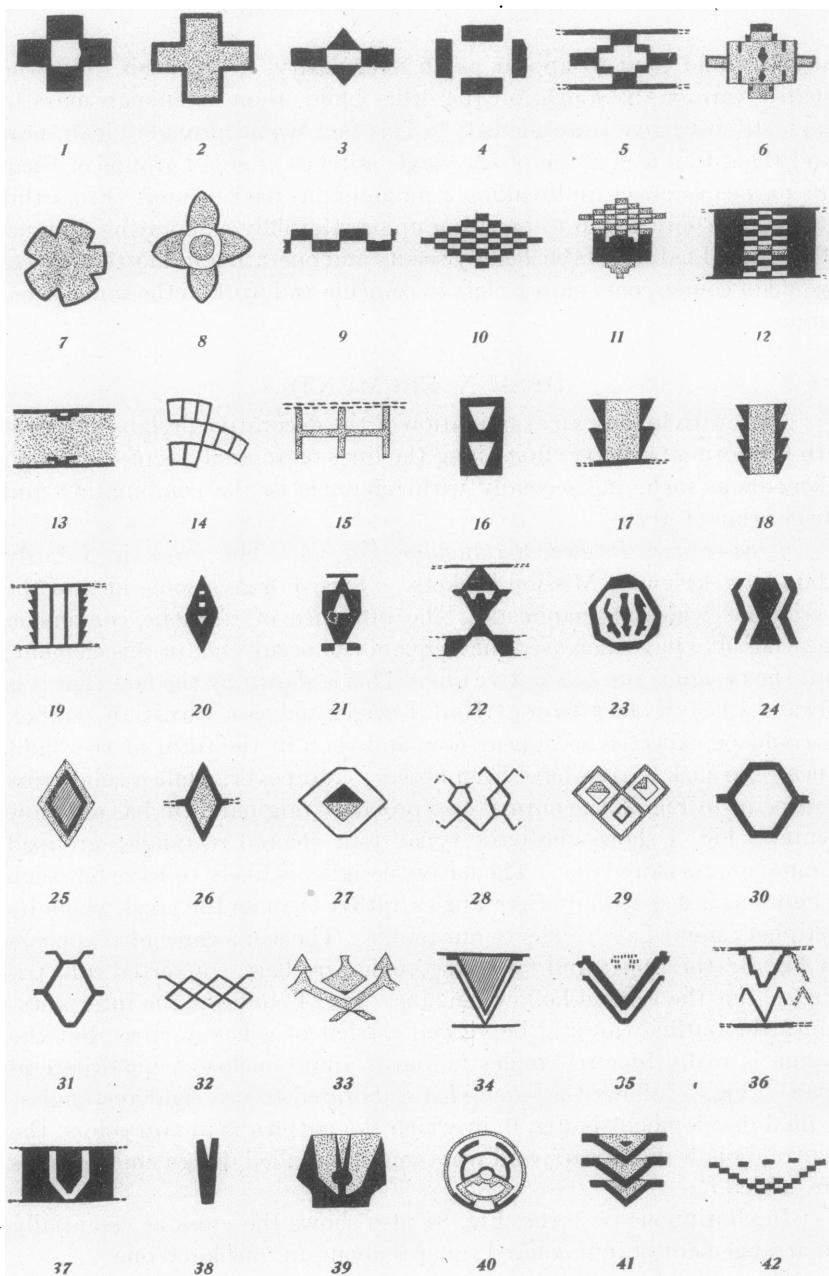
### DESIGN ELEMENTS.

Herewith follows an examination of the decorative designs of southern California basketry, first along the lines of an analysis of the design elements as such, and secondly with reference to the combination and disposition of these.

*Crosses and Related Rectangular Figures.* The cross is a fairly abundant design on Mission baskets. Figs. 1-8 give some idea of the variations which it manifests. The influence of Catholic conversion may possibly have increased the frequency of occurrence of this element; but the design is surely a native one. This is shown by the fact that it is always a heavy block figure. Had it originated as a Christian symbol, it could be expected to appear now and then in the form of two light lines. No such crosses have been noted. Moreover, while a solid cross occurs, as in Fig. 2, the normal and probably original form has a hollow center. Fig. 1 shows the basic type: four colored rectangles grouped around an uncolored one. The native designer is likely to have felt such a figure as a disposition of rectangles rather than as the cross which its periphery immediately calls to our minds. The same concept reappears in Fig. 3: the upper and lower rectangles are here converted into triangles, but the central hollow remains. Fig. 4 confirms the interpretation: the outline can still be viewed as that of a heavy cross, but the design is really four rectangles failing to quite enclose a quadrilateral space. Fig. 5 follows the same idea elaborated to use eight rectangles. A final development is Fig. 6, in which the pattern is in two colors, the central hollow disappears, and what might be called design embroideries are added.

In continuous patterns, Fig. 84 also shows the cross as essentially an arrangement of four colored squares about an uncolored one.

Cross-like figures at the center of flat baskets are shown in Figs. 7 and 8: one five ended, the other with pointed arms.



Figs. 1-42. Design Elements.

*Other Rectangular Designs.* A variety of elements and patterns may be grouped here, although most of them are probably unrelated in origin. A double row of alternating rectangles, Fig. 9, occurs occasionally as an inner or outer ring; Fig. 10 is an enlarged quincunx; parts of patterns 11 and 12 are similar. All these patterns use the same elements as the crosses that have been reviewed. The same holds of Fig. 13, although this may also be construed as an abbreviated design of the "flare" type discussed below. Figs. 14 and 15 call for no comment except that Fig. 15 is found in the middle of three zones on a flat basket. Fig. 16 seems to be a rectangular variation of the "eyed diamond." The patterns of the present group will be seen to adhere mainly to the type of the rhomboidal checkerboard—an elaborated "cross" or quincunx.

*Rectangles Flanked by Right-Angled Triangles.* This type is sufficiently characterized by Figs. 17, 18, 19. The borders of black triangles outweigh the central square; nevertheless each of the designs is a decorative unit.

*Eyed Diamonds.* The essence of this design is a colored rhomboid stood on end and containing one or more small uncolored areas. Fig. 20 may be taken as the type; Figs. 21 and 22 are elaborations; and Fig. 23 is probably related, since the hexagon or octagon seems usually to be a development from the rhombus in this as in Yokuts basketry. Fig. 24 can possibly be included as a diamond cut in half and reunited at the points.

*Simple Diamonds.* Simple diamonds are more common, and occur as rhombuses, rhomboids, and flattened to pentagons and hexagons. Occasionally they stand alone, as in Fig. 25, which is three-colored; but generally they unite into a band pattern, as in Figs. 26–30. Sometimes the interior is divided into an upper and lower triangle of contrasting color: see Figs. 27, 29.

*Flare Designs and Patterns.* These are not only common but characteristic. A feeling for them has thoroughly impressed the basketry decoration of southern California. The essential concept is that of a figure spreading from below upward and terminating in what might be called horns. Fig. 13 contains the rudiments. Fig. 31 makes the idea plainer: what is basically a repeated diamond is provided at the top with the horns giving the spread or flare effect. Fig. 32 applies the same device somewhat less conspicuously to a group of hollow diamonds. In 33 the separating arms embrace the diamond.

In some cases patterns that in origin are likely to be nothing more than zigzag bands are influenced by the flare suggestion (Figs. 34-36). The upper angle of the zigzag may be flattened slightly more than the lower; the lines that separate upward may be accentuated by having their contained space filled with color, or with a heavier subsidiary pattern: or there may even be a break in the continuity of the pattern that compels its mental reception as a series of V's. Fig. 36 is particularly convincing on this point.

Isolated V-shaped figures that seem related in concept to the foregoing are presented in Figs. 37, 38; and Fig. 39 is almost an elaborated combination of these two.

Fig. 40 is an application of the horn idea to the center of a basket.

Fig. 41 is the pure flare element worked into a pattern of its own by triple vertical repetition. It is interesting that the pattern as a whole carries out the idea of its elements in that the lowest of the flat V's is the smallest and the uppermost contains an increment. Fig. 42 elaborates the last suggestion, and 43 is interesting as being itself the "filler" of 35. Fig. 44 seems more doubtfully related.

Figs. 45-50 develop the concept much more elaborately. The first three occur on the same basket, Fig. 45 being the standard, and Figs. 46 and 47 reductions due to carelessness or lack of space. A relation between Figs. 50 and 17-19 seems probable. The semi-realistic tree or cactus in Fig. 85 may be influenced by concepts such as Fig. 48.

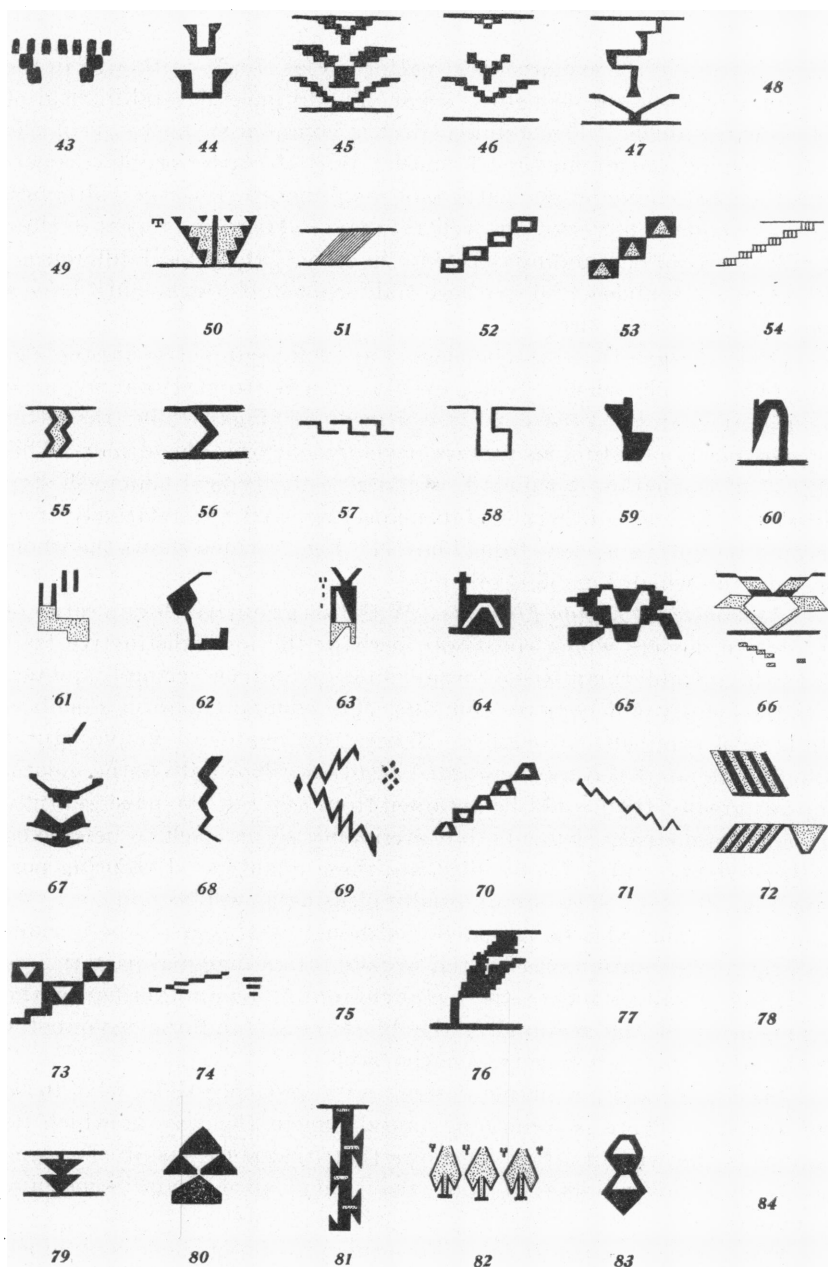
The general idea of the flaring pattern is also fundamental in many of the asymmetrical designs considered below.

*Diagonal and Other More or Less Asymmetrical Designs.* A number of designs of little intrinsic or developmental relationship are grouped together here on the basis of not separating symmetrically when divided by a line vertical to the edge of the basket or the pattern as a whole. This grouping seems justified as an approach to the marked inclination of southern California basketry to employ positively asymmetric designs, as discussed in a subsequent series of paragraphs.

The simple oblique quadrilateral or parallelopipedon, one of the most conspicuous design elements in the basketry of northern California as far south as the Pomo, is rather rare among the Mission Indians. Fig. 51 shows one of the sporadic examples. It is notable that this element is used as a separate unit, and not in self-combination as in northern California.

More common is a diagonal consisting of a series of rectangles arranged corner to corner, step-wise, as in Figs. 52, 53, 54. A similar





Figs. 43-84. Design Elements.

device inheres in the asymmetrical patterns Figs. 73-76, although in the last three of these the element is a bar or solid quadrilateral instead of a hollow rectangle. The stepped effect is common in basketry of the Yokuts region and among the Chumash. With the latter people it is perhaps the most characteristic pattern of small-mouthed baskets, although the steps consist of vertical as well as horizontal bars and repeat in close parallels instead of standing isolated. In spite of these local differences, the Yokuts, Chumash, and southern California step designs must have a common historical source.

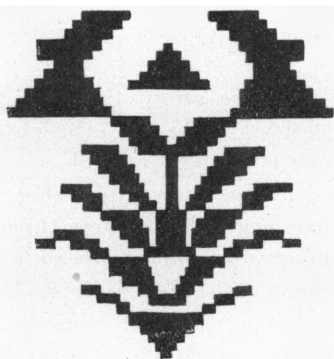
Other designs that may be classed as semi-asymmetric are the zig-zag, Figs. 55, 56, which divides evenly on a horizontal but not on a vertical line; and an occasional fret or meander, Figs. 57, 58: the latter construable as a continuous pattern development from the former. This Fig. 57, if carried on downward, would give the typical Chumash step pattern; but the southern Californians preferred the relatively free-floating design, as is clear from Plate III, Fig. 2, which shows the whole basket from which Fig. 57 is taken.

*Asymmetrical Design Elements.* With this group we enter a series of decorative devices which constitute perhaps the most distinctive trait of southern Californian basket ornamentation and are certainly imbued with the faculty of decorative stimulus. The common factor is a deliberate lack of symmetrical balance. Where this relates to simple figures standing alone, it throws them into attention. Not only is the mental impress greater than could be obtained from any but the most skilfully devised symmetrical elements, but originality seems itself to be evoked in the designer. Figs. 59-63 illustrate these qualities. Excepting perhaps Fig. 59, all of these are unusually pleasing as well as odd.

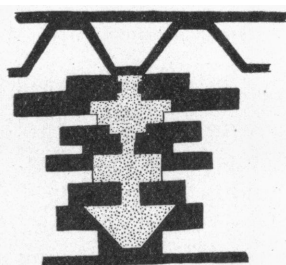
Fig. 64 must also be included. Although it appears to be a semi-realistic representation of a church worked into a diagonal pattern (see Pl. I, Fig. 2), all its traits—the rectangle containing another figure, the arrangement of the rectangles, the block cross, and the asymmetry produced by this—are in typical native style.

Fig. 65 is hardly a simple design and approaches those next to be considered. There is something tantalizing in the way in which its balance is thrown out. Fig. 86 shows that its repetitions on the same basket are never identical, but that they all contain something asymmetrical.

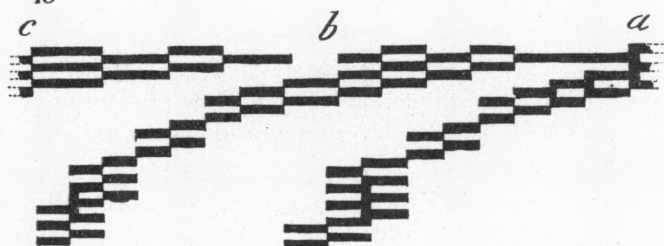
*Flares Made Asymmetrical.* The same provoking effect is obtained in Figs. 66 and 67. These are typical "flares," symmetrical in their body, and then deliberately thrown out of complete balance by an adjoined minor element that runs skew.



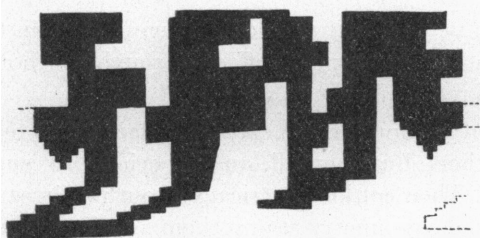
48



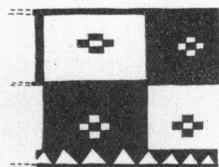
49



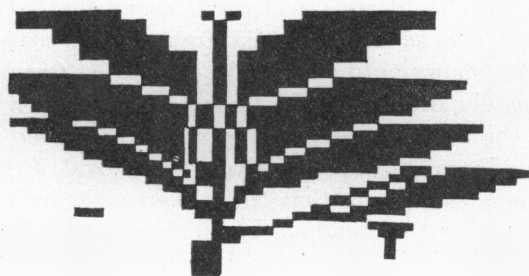
75



77



84



78

Figs. 48, 49, 75, 77, 78, 84. Elaborated Designs.

*Asymmetrical Diagonals and Drifts.* In this group the acme of skewness is attained. In the element shown in Fig. 68—the entire basket appears in Pl. I, Fig. 5—the asymmetry is slight enough to pass for a crudity of execution if it occurred as a sporadic example. Fig. 69 allows of no doubt. In Fig. 70 a diagonal pattern is deliberately thrown off its regularity by having a rectangle substituted for a trapezium (a very rare element) in the fourth of its five repetitions. In Fig. 71 a descending zigzag terminates in an extra horizontal one. Similar in plan is the line that protrudes at the base of 54; and similar in form, the supernumerary black zigzag in 72. It is manifest that one concept pervades all three disturbances of balance.

Fig. 73 may be construed as a step diagonal with an added element at the top, or as a simple flare with a skew projection below: in either case, the effect lies in the clever integration of the unilateral diagonal and the bilateral flare.

Fig. 74 is a simple form of a type which genetically perhaps began as a step diagonal, but added further bars or rectangles until the effect is one of drifting lines of elements more or less converging to a point. In Fig. 75 the idea is carried out more intricately. The element is the step-diagonal of bars, hung five times from a horizontal pattern of bars: a, b, c are three of the five points at which the diagonals begin to detach. It is obvious that a definite type of effect is sought without serious attempt at mechanical regularity.

Figs. 76–78 can be viewed as more or less elaborate flares with one side developed beyond the other; but they all, and especially 76, suggest the drift feeling of 74–75. Their conjoint intricacy of outline, irregularity on repetition, and marked asymmetry stamp them as quite extraordinary patterns. The irregularity seems only natural in view of the two other traits. Yet its degree is after all surprising. The actual Fig. 76 has been chosen as representative from among sixteen occurrences on the basket shown entire in Pl. IV, Fig. 2. No two repetitions are even approximately alike in detail. Granted the difficulty of carrying an element of this elaborate shape with regularity around the alternation of curved and straight stretches given by the oval of the basket, one nevertheless gets the feeling that the maker could have attained greater consecutive correctness had she cared very much; especially if she had simplified her basic figure a little. Instead, she either renounced the attempt altogether, or reveled as frankly in the irregularity of her pattern as she did in the skewness of her element.

Fig. 77 has a fairly simple organization underlying its apparent elaboration. Two-thirds of the pattern is a skew flare which is very similar to Fig. 76 except for having the main notch opening upward instead of turned to the side. The effect of the combinations of the repetitions of Fig. 76 as they appear in Pl. IV, Fig. 2 is even more similar to Fig. 77. To this major or lefthand unit of Fig. 77 is attached, on the overdeveloped side, a minor one, also notched from above and also

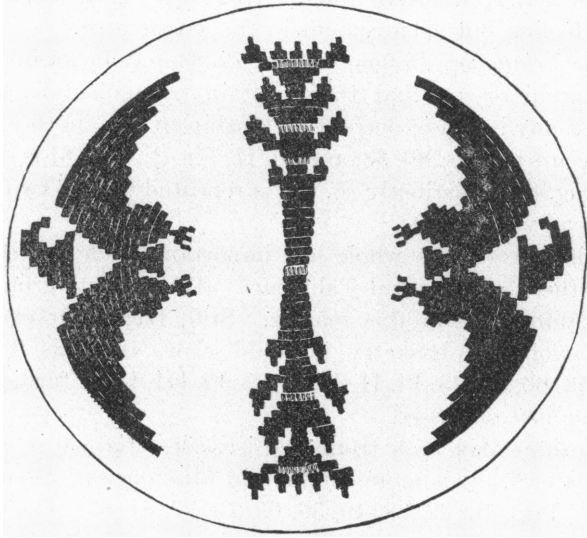


Fig. 85. Semi-Naturalistic Pattern.

springing from a stem or root; although, this base lying a trifle higher in the field of design, the adjunct does not appear so much to be rising separately out of the field, as to hang from the same invisible upper plane as the main portion of the pattern, or to be an outgrowth from its more active flank, attained to semi-independence. The larger and smaller parts of the pattern thus reënforce each other conceptually without anywhere exactly repeating; and the effect of the doubled ramifying flare, and of a drift from two unaccented but inevitable roots or focal points, is delicately blended. For sheer subtlety of compositional development of a basically simple idea this pattern is a masterpiece.

Fig. 78 repays analysis with the same richness of aesthetic discovery. It looks as if it might be the final evolution of an originally simple or possibly realistic representation of a plant, bird, or butterfly. The upper portion is symmetrical. The second pair of wings begin to

differentiate in projection as also in their setting on the central stem. In the third the dissimilarity is still greater, while the lowest, longest, and lightest tier is wholly unilateral, but ever so slightly compensated for by the thickening of the stem on the opposite side. The effect is clinched by the disparity of the two subsidiary figures: but—unexpectedly—the heavier one floats below the side that preponderates, instead of being a mere device to fill the larger vacancy on the left. The whole is like a melody with a rhythm whose sought irregularity is its essence. There is not only feeling but achievement in the asymmetry.

*Various Triangular Designs.* Figs. 79–83 may be grouped together for the external reason that they contain triangular elements: they carry little if any intrinsic decorative kinship to one another. The idea of Fig. 79 recurs in Figs. 80, 83, and Pl. II, Fig. 2. Fig. 81 is rather effective; and Fig. 82 is distinctly so. It is repeated on the two long edges of a small oval vessel.

Triangles are on the whole less important as design constituents than in northern and central California. The Yokuts group with the southern Californians in this matter. Still, triangular elements can scarcely be avoided in basketry, it would seem; and Figs. 3, 16–19, 21, 22, 24, 50, 53, 60, 63, 73, Pl. II, Figs. 2, 3, Pl. III, Fig. 1 furnish examples besides those just discussed.

A trapezium may be a truncated isosceles triangle in origin, or a true quadrilateral. It is more common in Mission ware than the parallelopipedon: Figs. 16, 22, 38, 49, 50, 65, 70, 72, 81, 83. The parallelopipedon, besides Fig. 51, can be recognized in Figs. 55, 66, 72.

Polygons of five, six, and eight or more sides seem almost invariably to be the result of corner clipping on diamonds. Compare the pentagons visible in Figs. 7, 28, 29, 31, 66, 83; hexagons in 24, 27, 30, 83; octagon (approximate) in 23.

A distinctive pattern idea runs through Figs. 52, 53, 64, 70, 73, with a suggestion appearing in Fig. 16: colored rectangles arranged step fashion, each containing an uncolored triangle. The latter may modify to angle, rectangle, or trapezium.

The hollow rectangle divided by two vertical bars is allied to the last series in Fig. 54, more hesitatingly used in Fig. 14, part of a wholly different effect in Fig. 19, and through this allied to Fig. 50.

*Double or Alternating Designs.* These, as exemplified in the pairs, Figs. 11–89, 12–37, 18–83, 32–41, 38–80 and in the alternation of 22 with two superposed triangles as shown in Pl. II, Fig. 2, might be conceived as theoretically asymmetrical units; but a better interpretation would

accord primacy to the whole zonal pattern in which they are alternating elements. The result at any rate is pleasing, probably because the two conjoined elements differ definitely in type. It is perhaps worth noting that in four or five of the six cases one or both of the paired members are of the flare variety or approach it; and that superpositions of triangles occur three times and the elongated checkerboard twice in the other member.

A very slight degree of pairing is found in Fig. 67, where on each alternate occurrence the uppermost element loses the diagonal stem and is reduced to a minute square.

### IRREGULARITIES OF COLOR AND SHAPE.

Gross irregularities of spacing and of form in the repetition of patterns appear to be distinctively less offensive to the Mission basket maker than to most Indians. They can be attributed to a slovenliness encouraged by the bulky foundation and wide stitching, which tends to foster a disregard of fine detail; to the color irregularities of the rush used as wrapping both in pattern and background; and perhaps to the liking for asymmetrical designs already discussed—although these asymmetrical inclinations may just as well be the outcome as the cause of the breaking down of habits of regularity.

As the *Juncus* colors are all rather non-actinic—yellow, buff, brown, red—they are largely lost in photography unless a special effort is made to bring them out. Some clear examples appear in Pl. I, Fig. 3, where the element, Fig. 73, is scarcely recognizable; Pl. II, Fig. 3, in which the mottling is beautifully effective, especially in the background; and Pl. III, Fig. 1, where it is confined to the pattern. Other examples of pattern variegation by color are afforded by Pl. I, Figs. 1, 5, Pl. II, Figs. 2, 4, Pl. IV, Fig. 2.

Of actual irregularities a good example is afforded by Figs. 45–47, of which the first is the fuller standard form, 46 a reduced one, and 47 a mere hasty skeleton—symmetric at that—on one basket.

Another instance is Fig. 86, on which Fig. 65 is four times repeated in different form and irregularly spaced. It is true that one pair of opposite figures is smaller and three-footed, the other four-footed. But closer examination shows that the two figures of each pair are far from identical. In addition they are not placed diametrically, which is evidence more probably of indifference than of incompetence, since the basket is well manufactured.

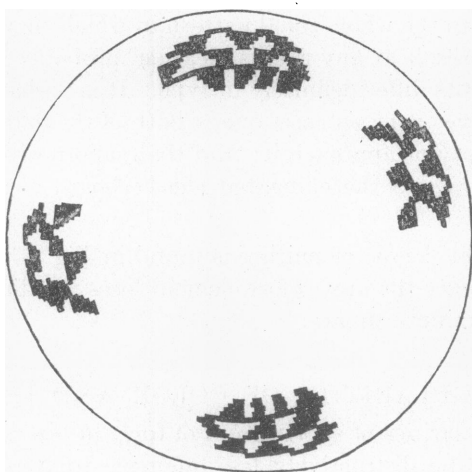
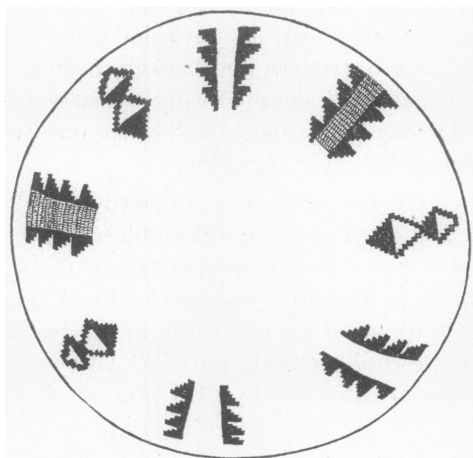


Fig. 86. Asymmetrical Designs unevenly Arranged.



87

Fig. 87. Pattern Arrangement with Broken Balance.

Fig. 87 proves a similar case. Element 18 appears five times—twice with its middle colored, three times uncolored; Fig. 83 occurs thrice. It would have been just as easy to have four of each alternating around, and the two colored 18's opposite.

This looks almost wilful. Oval baskets sometimes bring real difficulties in pattern disposal; but these problems are rarely met, the worker



apparently preferring to drift along and trust to distortion bringing her out somehow. Compare Pl. IV, Figs. 1 and 2 (elements 20 and 76). A simpler problem confronted the maker of Pl. I, Fig. 4. The outer figure (60) she repeated rather evenly. The double H (15) in the middle band however came out quite unevenly and unequally spaced; while the innermost and first-made zone contains eight diagonal bars as against seven occurrences of the figures in the middle and outer zones.

The same sort of thing happens in the round. Compare the use of design Fig. 57 in Pl. III, Fig. 2; the discrepancies in Fig. 75 between the diagonal drifts beginning at *a*, *b*, *c*; and Fig. 72, in whose three repetitions the upper parallelopipedon once has five instead of four bars.

Somewhat akin is the asymmetry of the center patterns Figs. 7 and 40. Fig. 23 is not a center design, but is repeated five times. As might be imagined, this proved a difficult task, except in the rough, and none of the four other figures have come out exactly like the one reproduced in Fig. 23.

With 29 and its respectively halved and quartered upper diamonds, we are back in the realm of deliberate negligence, of a seeking for the odd and unsymmetrical.

### PATTERNS AND THEIR ARRANGEMENT.

The prevailing pattern arrangement is a horizontal one on truncated and globular baskets, and correspondingly a ringed or concentric effect on flat and shallow vessels. Vertical or radiating and diagonal patterns are distinctly less common; but the former are far from rare on flat baskets and the latter on spherical ones. An alternating diagonal with a zigzag effect is most frequent on spherical baskets.

As regards blending of the design elements into a continuous pattern, or their discrete employment, shape of the vessel partly determines. Truncated and plate-form baskets are most given to continuity in horizontal or circular bands. Separate figures or block patterns are commoner in shallow than in flat baskets and in globular than in truncated ones. Many of the designs that produce a more or less vertical effect are really of the separate block type, as in Fig. 87. This use of comparatively large free-standing figures is characteristic of southern California baskets. The Chumash do not follow the practice, and everywhere to the north it is untypical. The Washo, Miwok, and to some degree the Yokuts, employ free figures rather liberally; but these differ from the Mission block designs in being much smaller in area and lighter in effect. Besides, most commonly, they consist of two or more repetitions of a simple

design element treated as a free-standing group. The Mission block design may be intricate or simple, but is normally a unit. Even if it can be analyzed into several elements, these are connected or fused into a single massive figure. Some examples are Pl. II, Figs. 1, 4; also Figs. 2, 6, 11, 23, 25, 32, 38, 39, 41, 44, 48, 62, 63, 67, 72, 78, 82, 83, 85-87. As compared with these, Figs. 24 and 59 would be rather typical of the simple and Fig. 69 of the complex patterns on Miwok baskets; except that these rarely favor the asymmetry of Figs. 59 and 69.

On the other hand, the southern California block effect is often only slightly impaired by a binding of the separate figures into a zone by means of a continuous line above or below or both. Of this type are Figs. 5, 12, 15, 17, 19, 36, 37, 45-47, 49, 50, 51, 55, 56, 60, 66, 76.

Continuous or banded patterns composed of fairly large elements, and in this way related to the block concept, appear in Figs. 22, 27, 29, 33, 34, 35, 36, 75, 77, 84, Pl. III, Fig. 2.

The generally large calibre of the designs is borne out by a count of the number of occurrences of each in the round of a basket. For figures that stand wholly or partly free, this number is most often from three to six.

Twice each—all double figures: 12-37, 32-41, 85.

Three times: 72, 73, 77, 78; 53 diagonal; double figure 24 and two rectangles.

Four times: 2, 6, 17, 19, 25, 33, 42<sup>1</sup>, 59, 62<sup>1</sup>; 65, 66; diagonals 54, 71, 74; double figure 38-80.

Five times: 4, 5, 23, 49, 61, 69; diagonals 64, 75.

Six times: 13, 44<sup>1</sup>, 48, 50, 81<sup>2</sup>; diagonal 70; double figure 22 with two triangles.

Seven times: 15, 60.

Eight times: the element of 82.

Ten times: 67.

Twelve times: 63.

Thirteen times: 20 (= Pl. IV, Fig. 1).

Sixteen times: 76 (= Pl. IV, Fig. 2).

Twenty-five times: 68.

In banded patterns the number of elements is somewhat larger.

Five times: 35 ?

Six times: 29 ?, 34<sup>2</sup>.

Seven times: 27, 58.

Eight times: 36, 56, 79.

Ten times: 84.

Double bands contain hexagons (Fig. 30) respectively 9 and 17 times and simple angles 14 and 22 and again 55 and 74 times, on the same basket.

<sup>1</sup>Five times?

<sup>2</sup>Seven times?

These numbers average distinctly low in view of the fact that they refer to design figures more often than to patterns. However complex some of these figures are, they are generally units, not repetitions of units. In northern and central California a design mass may also recur only three or four times on a basket; but it is then mostly a regular compound. Thus a typical Yurok cap design, appearing only three times, consists of two or three diagonally superposed parallelopipedons each terminating in several vertical teeth and traversed by a rectangular step. But such a figure resolves into simple elements—quadrilateral, triangle, zigzag—out of which it is built up into a pattern by regular reduplication. Similarly with all the twined overlay basketry of northern California, and with the sometimes elaborate Pomo and Maidu diagonals. So too the Yokuts and Chumash diamond bands and step diagonals are true patterns, such as occur in southern California also, but are less typical there than the large unit designs repeated a small number of times.

### CHUMASH WARE.

The basketry of the Chumash of Ventura and Santa Barbara counties and the northern Santa Barbara islands is extant in a limited number of examples in museums and private hands. Some utilitarian specimens have been preserved in caves; whereas scattered show pieces, mostly decorated, have been handed down in Caucasian possession. Although closely kindred to the ware of the tribes that lived south and east from the Fernandefio and Gabrielino, Chumash basketry differs in the following points.

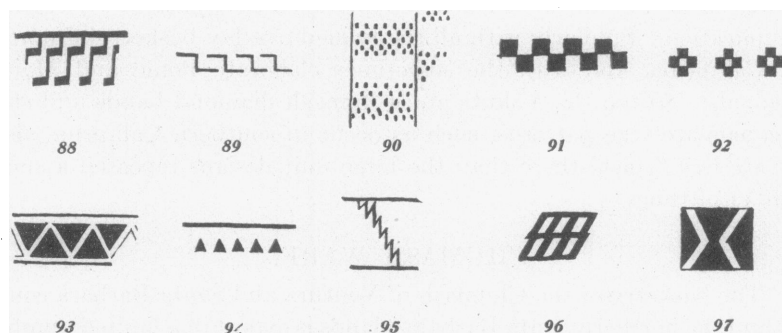
1. Willow was employed in twining.
2. *Juncus* rush as well as *Epicampes* grass was used as foundation.
3. Neither the peaked cap nor the pointed water bottle is known to have been made; nor is there any evidence of diagonal twining.
4. The water bottle was flat-bottomed and asphalt-lined inside. It was made in close plain and three-strand twining—the latter weave being unrepresented among the southern tribes, the former followed chiefly or only in open-work.
4. A bellied, coiled storage basket was made, in addition to the truncated carrying basket of the southern groups. The truncation of the storage basket was the opposite—at the top.
6. The globular basket is lower and larger than in the south. It shows a suggestion of a shoulder, has a small mouth, and often a rudimentary neck. It thus approximates the Yokuts-Kawaiisu-Chemehuevi-

Tübatulabal-Panamint bottle neck. Whether lids were made for native use or only for sale to Europeans is uncertain.

7. The coils and stitching are finer than in Mission basketry, the texture averages even.

8. Mottled effects are the rule in *Juncus* coiling, whereas the majority of Cahuilla, Luisefño, and Diegueño pieces found in home use are unmottled.

9. Design elements are simpler, patterns more continuously repetitive.



Figs. 88-97. Design Elements on Chumash Baskets.

10. As corollary, large block figures are rare or wanting, step diagonals and checker patterns constituting the typical decoration.

The following is a list of designs.

(a) A. M. N. H., 50.1-8265. Plate V. Parallel step diagonals completely cover the surface.

(b) O. T. Mason, *Aboriginal American Basketry*, Pl. 49, top: almost like last in shape and pattern.

(c) A. M. N. H., 50.1-2150. Plate VI, Fig. 1. The main pattern is like that of (a), with the proportions slightly different.

(d) O. M. Dalton,<sup>1</sup> Fig. a. Of the Mission "spherical" shape. Parallel step diagonals, four lines of about eight steps each.

(e) British Museum, Vancouver's no. 185; apparently unillustrated. Spherical, mouth incurved. Parallel step diagonals.

(f) A. M. N. H., 50-539. Flat basket, *Juncus*. No record of Chumash attribution, but suggests such origin. Five radiating groups of parallel step diagonals of three lines each.

(g) Dalton, plate 15, fig. 3; globular. Fig. 88. Rim pattern of parallel steps.

(h) Dalton, figure b; shallow bowl. Fig. 89. Rim pattern of broken fret.

<sup>1</sup>Ethnographical Collection. . . of Captain Vancouver, Intern. Arch. Ethnogr., X, 225-245, 1897.

(i) A. M. N. H., 50.2-927; bowl. Same rim pattern. Pl. VI, Fig. 2.

(j) A. M. N. H., 50.2-539. Same, with an extra step.

(k) Mason, pl. 49, bottom. Fig. 90. Pattern unit, a rectangle of five rows of thirteen minute squares each, alternately colored and uncolored. The rectangles form a checker surface with plain rectangles: vertical rows are bordered by lines. This is also a lidded basket.

(l) Dalton, plate 15, fig. 3. Eleven rows of nine squares each, five light and four dark. Each successively lower row projects one square farther to the left, making the pattern surface a checkerboard, while the outline is that of a step diagonal.

(m) Dalton, fig. b; shallow bowl. Four radiating diagonals, built on the plan of (1), but each row only three light and two dark squares wide.

(n) Dalton, fig. g; hat of European shape, with crown and brim. Fig. 91. Band of two rows of alternate squares.

(o) Dalton, fig. c; shallow bowl. Same as (n), except that pattern is light on a dark background.

(p) U. C., 1-3078. A small bowl with foot and handle, not a native shape; looks like Chumash mottled buff *Juncus* ware made for sale to whites. Fig. 92. Pattern a rim row of small crosses, each a white square flanked by four black ones.

(q) A. M. N. H., 50.1-2150. Plate VI, Fig. 1. A band at the rim encloses a zigzag line.

(r) U. C., 1-20918. Collected by E. L. McLeod at Ventura. Flat basket, materials and texture like those of (p). Fig. 93. Pattern only near edge, two white lines with a zigzag white line between—like the pattern of (q) but reversed in color: the enclosed triangles are dark.

(s) British Museum, Vancouver's no. 185. Fig. 94. A row of small isosceles triangles pointing toward a line. A rim pattern, evidently related to (r).

(t, u) A. M. N. H., 50.2-927; shallow bowl of somewhat mottled *Juncus*. Pl. VI, Fig. 2. Middle or main zone of ornament contains two opposite pairs of four hollow diamonds in radial position (t); also two opposite pairs of radial lines each flanked by six short diagonals, giving a plant effect (u).

(v) U. C., 1-2331. Doubtfully attributed to the interior Chumash of the Tejon region. A small truncated carrying basket, in sumac, not *Juncus*. Fig. 95. Pattern, diagonal of six or seven acute zigzags, seven times repeated between an upper and a lower horizontal line. The diagonal has three points in contact with the upper line, two points just miss contact with the lower.

(w) Dalton, plate 15, fig. 1 has a shape and pattern somewhat like that of (v). If one is Chumash, both are likely to be.

(x) U. C., 1-4095. Small basket of spherical Mission type: no neck or lid. Fig. 96. Pattern, a block of two black parallelepipeds each with two diagonal bars; enclosed spaces white, background mottled buff *Juncus*.

(y) Dalton, fig. c. Fig. 97. An hourglass closely flanked by two obtuse isosceles triangles, the whole unit having the form of a square trisected by two angles. Some of the figures are reversed in color, only the angles and vertical edges of the square appearing.

These patterns aggregate thus:—

Parallel steps—long diagonals: a, b, c, d, e, f; border fret, g, h, i, j.

Checker—in square masses: k; in diagonal masses: l, m; in border band: n, o; in row of crosses: p.

Rim band of enclosed zigzag line or row of triangles: q, r, s.

Row of diamonds: t.

Line flanked by diagonal spurs: u.

Diagonal zigzags: v, w.

Barred parallelepipeds: x.

Flanked hourglass squares: y.

It appears that three-fourths of Chumash patterns reduce to the step, checker, and zigzag band designs, nearly two-thirds to the first two of these. This is a very much higher frequency than in Mission ware proper. While these designs are definitely represented in the southern art, they are only fairly abundant. They preponderate so strikingly in Chumash work—especially the step and checker—as to endow this with a quite particular quality.

Another Chumash speciality is the employment of light patterns on a dark background; allied to which is the introduction of white or pale buff alongside the dark brown or black pattern element when the background is a dark buff or light brown.

The direction of diagonals is regularly upward or outward to the right—the direction of the lengthening coil. This is also the usual slant in Mission ware; and it prevails in the twined as well as coiled baskets of central and northern California.

# MUSEUM NUMBERS AND TRIBAL PROVENIENCE.

(A. M., American Museum of Natural History; B. M., British Museum; I. H., Museum of the American Indian, Heye Foundation; U. C., University of California Museum of Anthropology.)

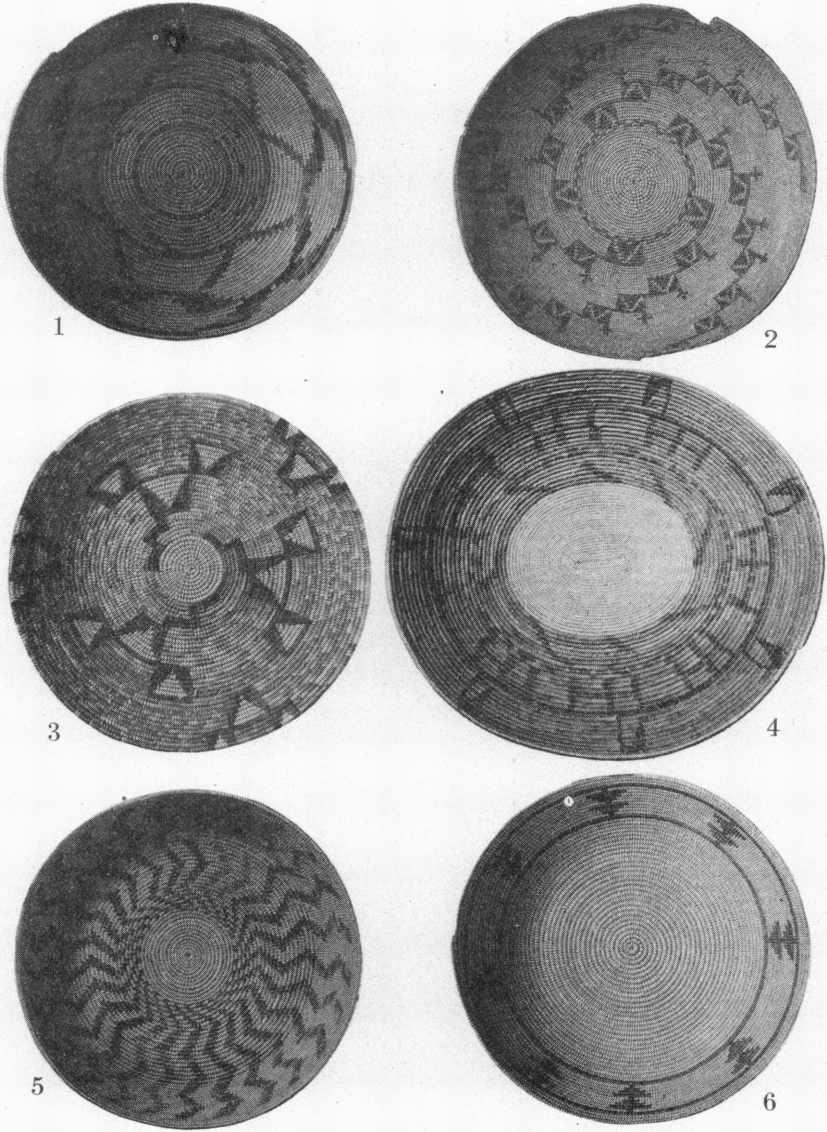
Fig. 1 A. M.	50-2465	
2 A. M.	50-2786	Cahuilla
3 U. C.	1-12957	Diegueño
4 I. H.	8-3940	
5 U. C.	1-9195	Luiseno
6 A. M.	50.1-5990	
7 U. C.	1-14390	Cahuilla
8 A. M.	50-2786	Cahuilla
9 A. M.	50.2-924	Juaneno
10 A. M.	50-2466	
11 O. T. Mason, Aborig.	Amer. Basketry, pl. 36.	
12 U. C.	1-10609	Juaneno
13 U. C.	1-11066	Cahuilla
14 I. H.	8-3999	
15 A. M.	50-2778	Cahuilla
16 I. H.	7-2235	
17 A. M.	50.2-538	
18 U. C.	1-20910	Saboba Luiseno
19 A. M.	50-2463	
20 I. H.	8-1223	Diegueño
21 I. H.	7-2236	
22 A. M.	50-2140	
23 I. H.	8-3939	
24 U. C.	1-11047	Cahuilla
25 A. M.	50.1-2106	
26 A. M.	50-2785	
27 U. C.	1-11063	Cahuilla
28 U. C.	1-20908	Gabrielino
29 U. C.	1-3080	Luiseno
30 U. C.	1-10986	Cahuilla
31 I. H.	8-4540	
32 A. M.	50.2-926	Luiseno
33 I. H.	9334	Southern Diegueño
34 A. M.	50-2138	
35 A. M.	50-2454	
36 U. C.	1-11057	Cahuilla
37 U. C.	1-10609	Juaneno
38 A. M.	50-4194	Southern Diegueño
39 O. T. Mason, Aborig.	Amer. Basketry, pl. 36.	
40 U. C.	1-14397	Cahuilla
41 A. M.	50.2-926	Luiseno
42 I. H.	9-42	
43 A. M.	50-2454	
44 A. M.	50-2759	
45-47 U. C.	1-10613	Juaneno

48 U. C.	1-9194	Luisefño
49 U. C.	1-14396	Cahuilla
50 U. C.	1-14986	Gabrielino
51 A. M.	50-2765	Cahuilla
52 A. M.	50-2763	Cahuilla
53 U. C.	1-14394	Cahuilla
54 A. M.	50-2777	
55 I. H.	2-3933	
56 A. M.	50-2764	Cahuilla
57 I. H.	2-9566	
58 U. C.	1-11008	Cahuilla
59 U. C.	1-11017	Cahuilla
60 A. M.	50-2778	Cahuilla
61 U. C.	1-11007	Cahuilla
62 A. M.	50.1-9947	
63 A. M.	50-2779	Saboba Luisefño
64 A. M.	50.2-924	Juaneño
65 U. C.	1-20909	Saboba Luisefño
66 A. M.	50-2464	
67 I. H.	9539	Luisefño
68 A. M.	50-2780	Saboba Luisefño
69 I. H.	9-170	
70 A. M.	50-2457	
71 U. C.	1-14438	Cahuilla
72 U. C.	1-14405	Cahuilla
73 A. M.	50-2769	Cahuilla
74 A. M.	50.1-2877	"Chemehuevi"
75 U. C.	1-14401	Cahuilla
76 I. H.	8-1222	Diegueño
77 U. C.	1-9196	Luisefño
78 U. C.	1-9193	Luisefño
79 A. M.	50-2469	Cahuilla
80 A. M.	50-4194	Southern Diegueño
81 I. H.	1-892	
82 U. C.	1-11058	Cahuilla
83 U. C.	1-20910	Saboba Luisefño
84 U. C.	1-20916	Gabrielino
85 I. H.	8-5679	Saboba Luisefño
86 U. C.	1-20909	Saboba Luisefño
87 U. C.	1-20910	Saboba Luisefño
88 B. M.		Chumash
89 B. M.		Chumash
90 Mason, pl. 49		Chumash
91 B. M.		Chumash
92 U. C.	1-3078	Probably Chumash
93 U. C.	1-20918	Ventura Chumash
94 B. M. Vanc.	185	Chumash
95 U. C.	1-2331	Perhaps Chumash of interior
96 U. C.	1-4095	Probably Chumash
97 B. M.		Chumash



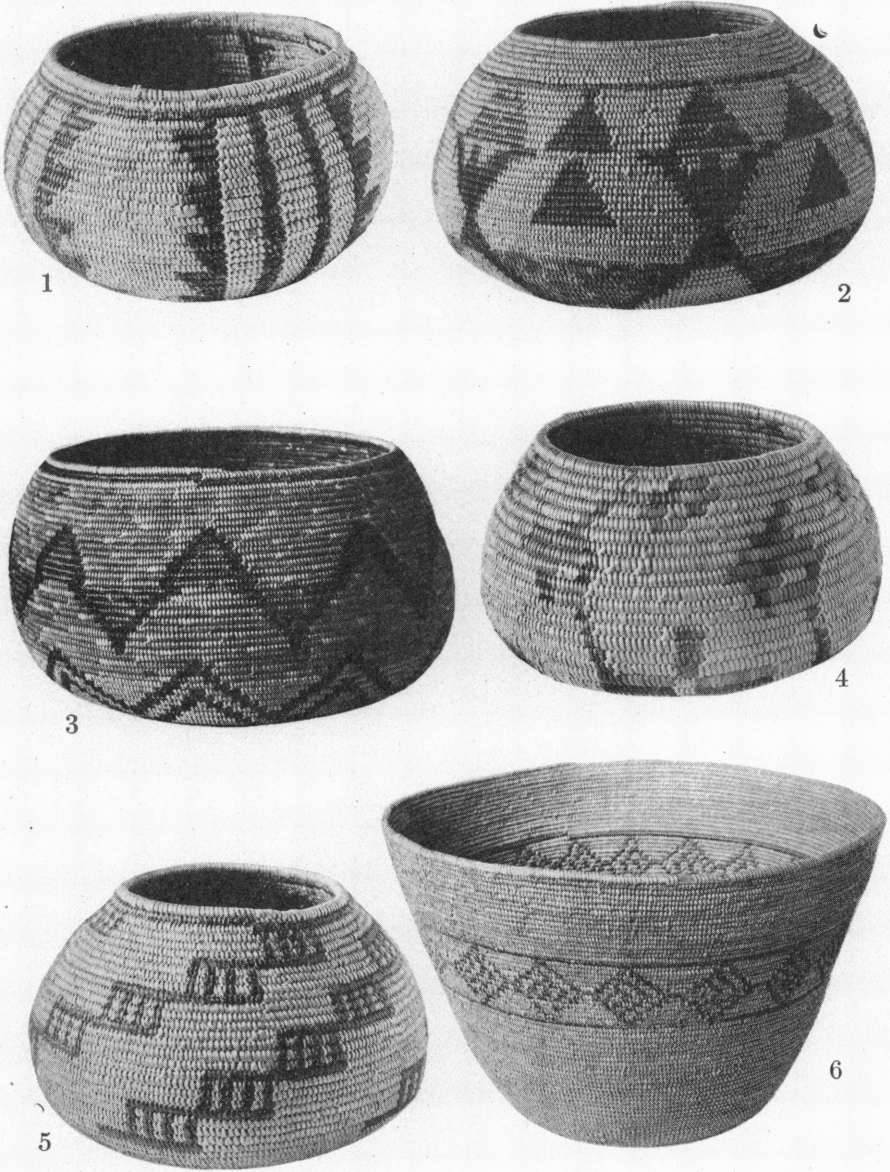
Pl.	Fig.			
I	1	A. M.	50-2464	
	2	A. M.	50.2-924	Juanefio
	3	A. M.	50-2769	Cahuilla
	4	A. M.	50-2778	Cahuilla
	5	A. M.	50-2780	Saboba Luiseño
	6	A. M.	50-2469	Cahuilla
II	1	A. M.	50-2463	
	2	A. M.	50-2140	
	3	A. M.	50-2784	
	4	A. M.	50.1-9947	
	5	A. M.	50-2777	
	6	A. M.	50-2109	
III	1	I. H.	9-40	Diegueño
	2	I. H.	2-9566	
IV	1	I. H.	8-1223	Diegueño
	2	I. H.	8-1222	Diegueño
V		A. M.	50.1-8265	Chumash
VI	1	A. M.	50.1-2150	Chumash
	2	A. M.	50.2-927	Chumash





Patterns on Shallow Baskets.



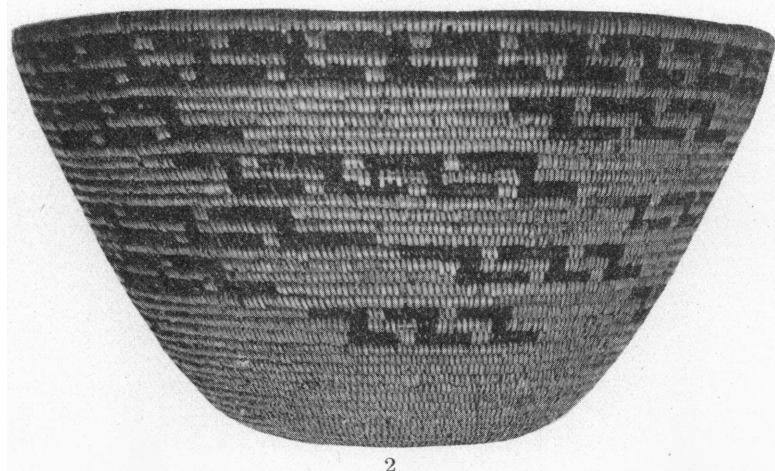


Patterns on Round and Deep Baskets.





1

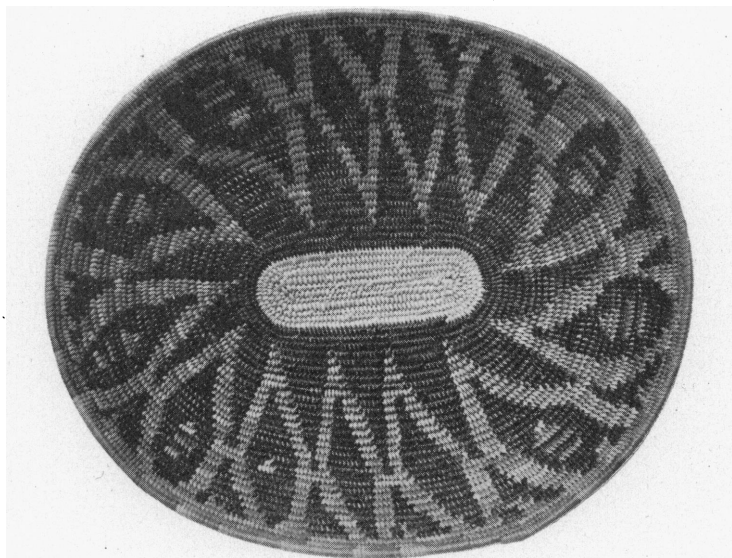


2

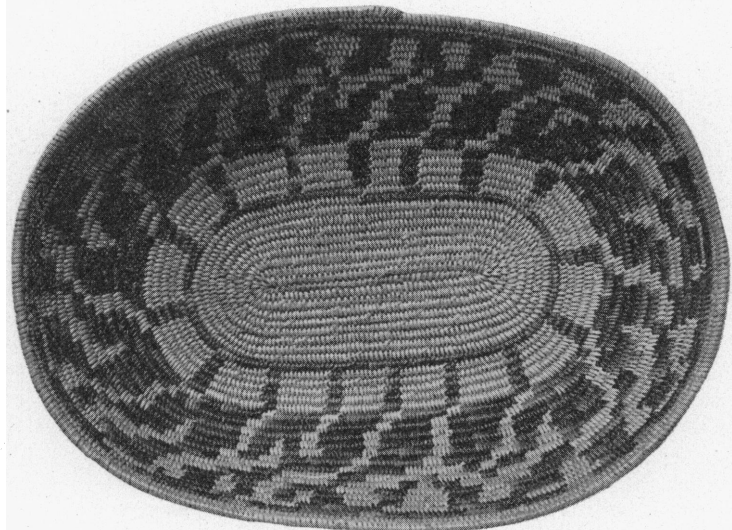
Mottled and Irregular Patterns.







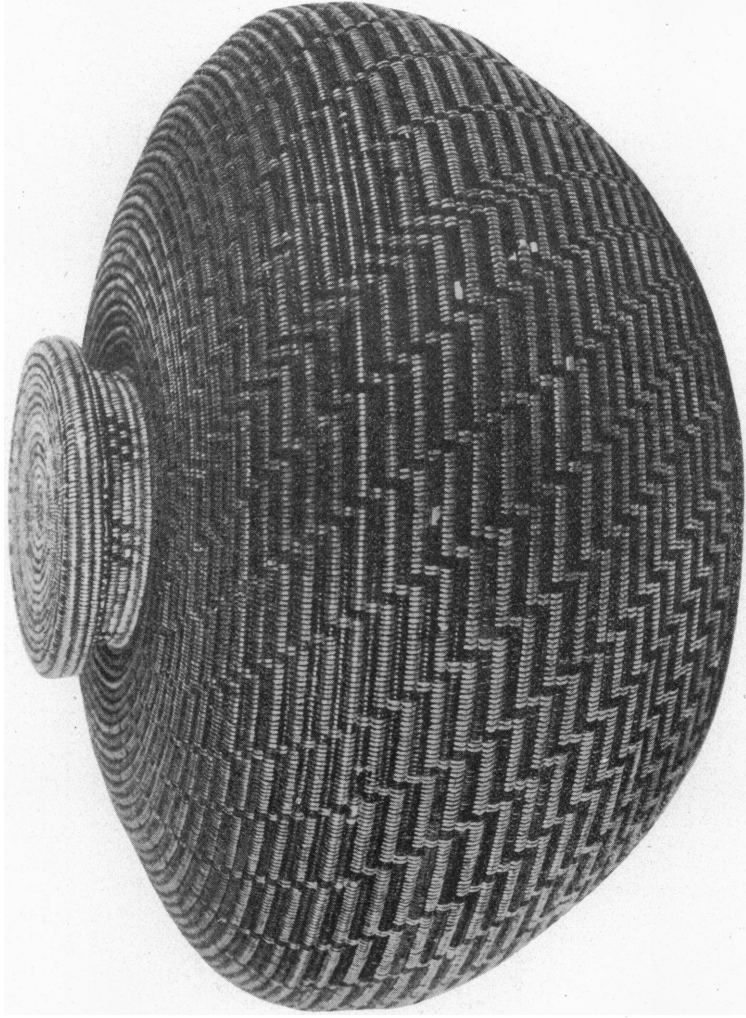
1



2

Uneven and Mottled Pattern Effects.



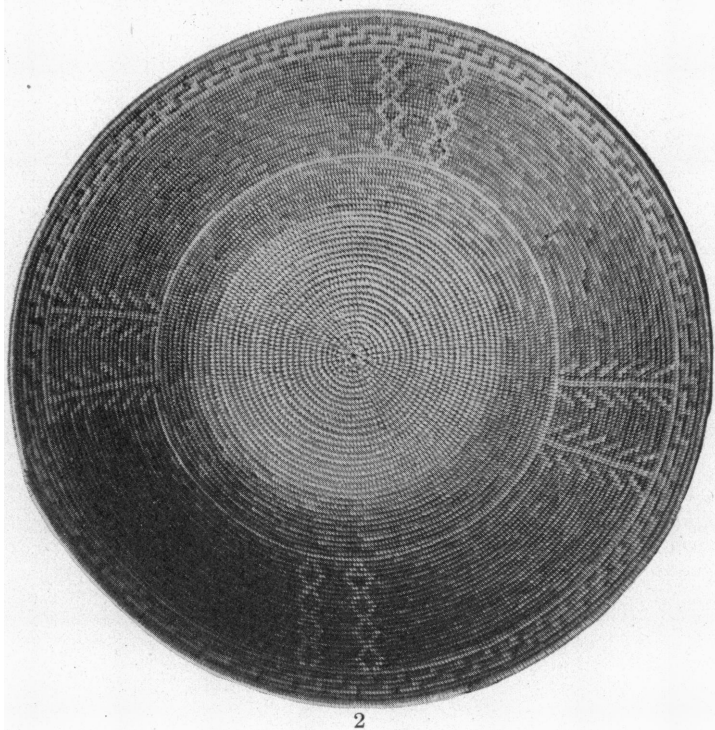


Chumash Basket with Small Neck.





1



2

Chumash Patterns.

