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STRUCTURAL BASIS TO THE DECORATION OF COSTUMES  
AMONG THE PLAINS INDIANS.

BY  
CLARK WISSLER

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**STRUCTURAL BASIS TO THE DECORATION OF COSTUMES  
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## PREFACE.

The following is a continuation of the preceding study of structural concepts in the costumes of the Plains Indians, attention here being directed to styles of ornamentation. The examples noted were first presented in the January Anthropological Lectures at this Museum in 1915. The illustrations and citations are for the most part to preceding papers in this series. Students of primitive art have often believed it possible to discover the successive steps in the evolution of designs. By arranging examples found upon prehistoric or later objects in order of their increasing conventionality, series have resulted, showing a clearly realistic drawing at one end and an almost entirely geometrical one at the other. Such series suggest that all these forms were initiated by first drawing from real life and then by successive conventionalizations arriving at a pure geometric form. The weak point in this interpretation is that there are no means of dating the units of the series, their arrangement being merely a matter of selection on the part of the observer. There are still other obvious objections to the interpretation, so that the tendency of the critical is to reject the conclusions. Somewhat analogous attempts have been made in the study of industrial arts and technology, but with equally unconvincing results. Consequently, as the case stands today, we can point to scarcely a single example in which the life history of a trait can be satisfactorily demonstrated in objective data.

In the following we have some less elaborate series of another kind but still good examples of the genesis of specific decorative designs. With one possible exception, they differ from the previous genetic studies of design in that the origin was not strictly in attempts at realistic art but merely grew out of attempts to embellish surfaces of fixed contour and to conceal unsightly lines. The exception referred to is the deer tail design upon certain Teton specimens, where we have a good case of a design arrived at, in part, by conventionalized representation.

March, 1916.



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## INTRODUCTION.

In the preceding paper we have analyzed the structure of certain garments found among the Plains tribes. One of the most unique points developed was the stylistic influence of the natural contours in the materials. If we push our view beyond the boundaries of the Plains, we find evidences of a like relation even in textiles, from which it appears that we have here a principle of style development. In the course of this investigation we noted somewhat analogous relations between structure and ornamentation, the subject of this discussion.

## WOMEN'S COSTUME.

The Yakima dress (p. 66) seems to be a good example of the fundamental structure in Plains dresses. The shoulder line is here produced by the simple expedient of folding over the tail end of an elkskin. The contour of this piece is, no doubt, trimmed to a symmetrical form but still follows the lines of the original pelt. This folded over portion thus defines a peculiar curve whose origin is in the original material and not in the aesthetic constructive activities of the maker. It is, of course, true that the latter is chiefly responsible for its balance and symmetry, but the general direction of the curve was an external affair.

The chief decorations upon these dresses are the beaded yokes. In the Yakima dress we note a band along the shoulder seam where the folds of the front and back halves of the garment are sewed together, but the most prominent feature is the very broad band of beads following the curve of the turned over section. When dressing a skin for a dress the hair is left upon the tail and this tuft of hair becomes the conspicuous center piece of our broad beaded band.

Turning to the Crow dress on p. 64, we note a slightly different structure, for instead of a fold, a yoke is cut of two pieces and laid over the large skins forming the two halves of the dress. But the tail tuft and the same curve as before, mark the contour of this yoke which overlaps the garment precisely like the fold in the Yakima type. The beading of this Crow piece is far less elaborate than for the preceding but again follows the same con-

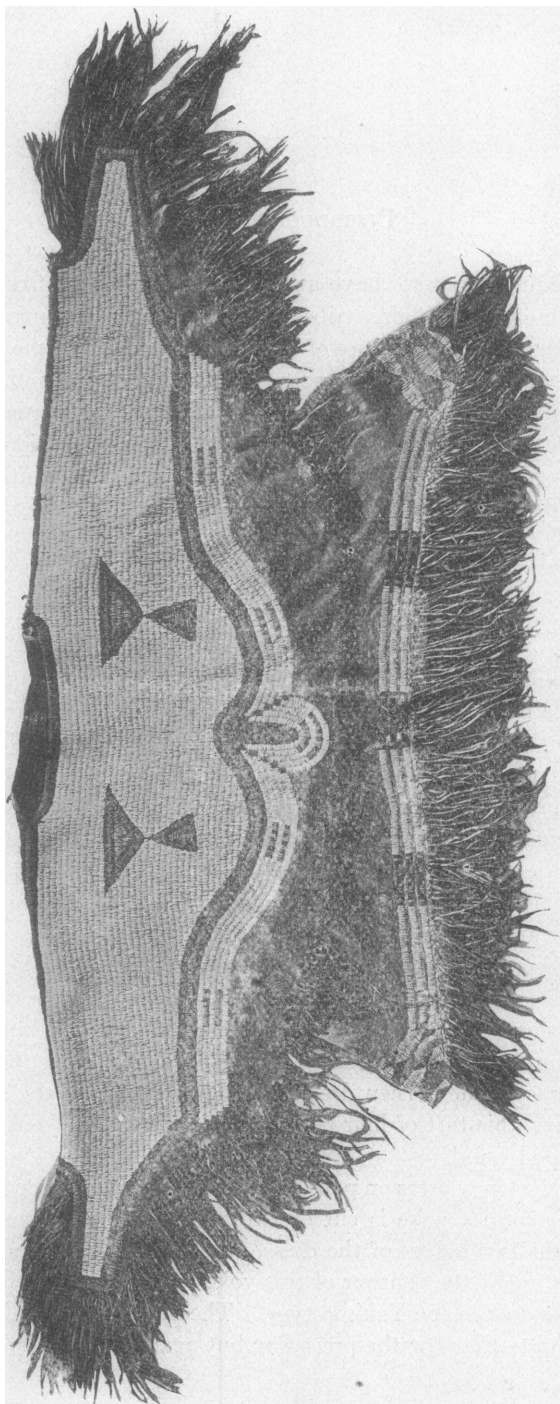


Fig. 1 (30-2021). Decoration upon a Woman's Costume. Dakota. For variants of this design see Bulletin of this Museum, vol. 18.

tour lines. However, on the Blackfoot dress shown in vol. 5, p. 126, we have broad bands as in the Yakima case and a separate yoke like that of the Crow.

So far as our observation goes, the tail tuft is a leading feature in the group of tribes of which the Blackfoot and Crow form the center. Further south, we find the whole upper part of the dress beaded. Our most interesting examples are the older specimens from the Dakota of which Fig. 1 is typical. In structure, we have a large yoke to which the skirt is attached by a straight seam. Yet, the beading is so laid out as to give us the contour notes in the preceding and then below this and parallel to it is a broad band. There is no tail tuft but a beaded design of the same form around which the band passes with a sharp curve. As there are a number of dresses in our Dakota collection bearing similar designs, this case is typical. The historical relation between this decoration and those we have just discussed is obvious.

In the southern Plains we have a somewhat different dress style (p. 87). The Kiowa, Arapaho, and to some extent, the Apache, make a large rectangular yoke to which the dress is attached, but usually underneath so that we have the appearance of the folded over yoke. On a few of these yokes we find the tail tuft, which carries us directly to the fundamental structural type. The beaded decorations, however, do not follow the characteristic curve of the north, but the rectangular outline of this yoke. That the curve idea was once entertained is suggested by two old specimens in the Museum bearing the tail tuft and also approximating the curved contours we have noted.<sup>1</sup>

If now we turn to the northern frontier of the Plains and to the Woodlands we find a similar relation between decorations and patterns. The type for the Cree described by early writers and represented by Fig. 23, p. 74, bore decorations on the folded over yoke. Quill designs were often placed here (p. 71). In the modern Ojibway type (p. 73) we have the fold but the decoration is applied to the shoulder straps and to an intervening section of the yoke.

As we have shown in the preceding paper, the one connecting link between these dresses and those of the Plains is this folded over yoke. The use of sleeves in the east and a different method of fitting the skins did not, however, give the peculiar curve we have noted in the northern Plains. On the other hand, the dress of the southern Plains has certain analogies to the

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<sup>1</sup> One of these specimens is credited to Taos and the other to the Apache and both are of primitive structure, like Fig. 18, p. 66. The tail end of the skin is folded over and hangs down. The decoration is chiefly a row of pendants.

Woodland type, whether due to convergence or diffusion we are unable to decide.<sup>1</sup>

Along with the concept of a folded over yoke goes the idea that it was the place for the most elaborate decoration. As we have previously stated, the fact that we have a continuous distribution for this association between structure and decoration, justifies the assumption of a single origin. The point here, however, is that when the structure of the yoke is modified, its style of decoration tends to change, but is not exactly correlated because in some instances the style has survived in spite of these changes.

The most interesting survival is found on Dakota dresses where, as we have stated, the tail has given way to a U-shaped conventional design. In a previous study the symbolic association with this design has been discussed.<sup>2</sup> Curiously enough, the design is not called a deer tail but is said to represent a turtle emerging from a lake. In the above citations, it is shown how this conforms to a mystical conception of an association between turtles and women.

If now we recall the basic facts in aboriginal decorative art, we see here a very important concrete case in which the symbolic interpretation can make no good claim to being the creative motive of the design. On the other hand, there is the very best of evidence that the design arose from the structure and the use of the homely deer tail as an ornament. The symbolic association is, therefore, secondary.

### MEN'S SHIRTS.

The decorations upon shirts of the Plains men present a more perplexing problem. Reference to the illustrations in the preceding paper indicates one common conventional style. This consists in the main of a broad band over the shoulder and sleeve seam and two transverse bands like suspenders or shoulder straps. These bands are beaded or quilled strips of skin, sewed in place upon the shirt and are scarcely distinguishable from legging bands. To one edge of the bands a fringe of hair or ermine tails is attached. The oldest shirt we have seen is that shown on p. 50. The band on the top of the

<sup>1</sup> It will be noted that the yoke of the Arapaho and Kiowa is cut of a single piece. The shapes of some of these suggest that a small skin was placed transversely and a hole cut for the neck. This would give us the characteristic contour. The fold effect is secured by fastening the skirt up under the edge of the yoke. It should be considered that it is only an elkskin that is large enough for a woman's dress and that if antelope or other deer are used, piecing must be resorted to.

<sup>2</sup> Bulletin, American Museum of Natural History, vol. 18, p. 240; also Museum Journal, 1912.

sleeve and shoulder is upon the other side, as drawn. (See Bulletin of this Museum, vol. 18, fig. 95.) When we examine the specimen it appears that the bands cover seams. The top seam is covered by the long band and the transverse seam by the shoulder strap. However, this old shirt differs from others in that the shoulder bands are short. Further, the long shoulder bands on later shirts do not cover the seams but slant inward. This slant and greater length of the bands on newer shirts at once raise a suspicion that they may have been copied from military uniforms. While we have found no specific evidence to support such a view, its great probability must be recognized. On the other hand, the placing of these bands over the seams of the older shirts takes us back to a principle of decoration used on other parts of aboriginal costume and therefore is strong argument for the aboriginal origin of the bands, though it may well be that military models modified them later. We find upon a number of shirts a secondary fringed band covering the seam where the sleeve is attached and again in cases where the slanting long bands are absent we often find the short fringed band over this seam. This would be consistent with the military origin of the slanting band.

According to tradition, the hair fringe had a definite function among the Dakota but it is not certain that the decoration originated among them. However, the concealing of seams by fringes of skin and other materials was common, as will be noted on other men's garments illustrated in the preceding paper. In distribution this method of concealing seams by fringes seems to have been the prevailing mode in northern United States as far west as the Coast Salish and gave us the characteristic coat of the white trapper. The fact that both the bands and the fringes follow the seams leads us to the conclusion that their position and place was determined by the structure of the garment.

There is still another curious decorative feature to these shirts. The most of them have at the throat and back of the neck a triangular pendant, usually highly decorated. This cannot be accounted for on structural grounds for it has no necessary part in forming the garment nor does it conceal any defect. It cannot be the tail for this is at the bottom of the shirt. In Carver's book (p. 230) we have an illustration of a Dakota (?) wearing no upper garment, but at his throat is hung a triangular object which in form and design suggests the pendant upon these shirts. From the text we see that this is a knife sheath.

The dagger placed near it in the same plate, is peculiar to the Naudowessie nation, and of ancient construction, but they can give no account how long it has been in use among them. It was originally made of flint or bone, but since they have had communication with the European traders, they have formed it of steel. The length of

it is about ten inches, and that part close to the handle nearly three inches broad. Its edges are keen, and it gradually tapers towards a point. They wear it in a sheath made of deer's leather, neatly ornamented with porcupine quills; and it is usually hung by a string, decorated in the same manner, which reaches as low only as the breast. This curious weapon is worn by a few of the principal chiefs alone, and considered both as a useful instrument, and an ornamental badge of superiority.<sup>1</sup>

Now while this does not prove that the triangular ornament upon Plains shirts was derived from the conventional knife sheath badge of office, it does nevertheless offer one rational explanation. In the discussion of distribu-

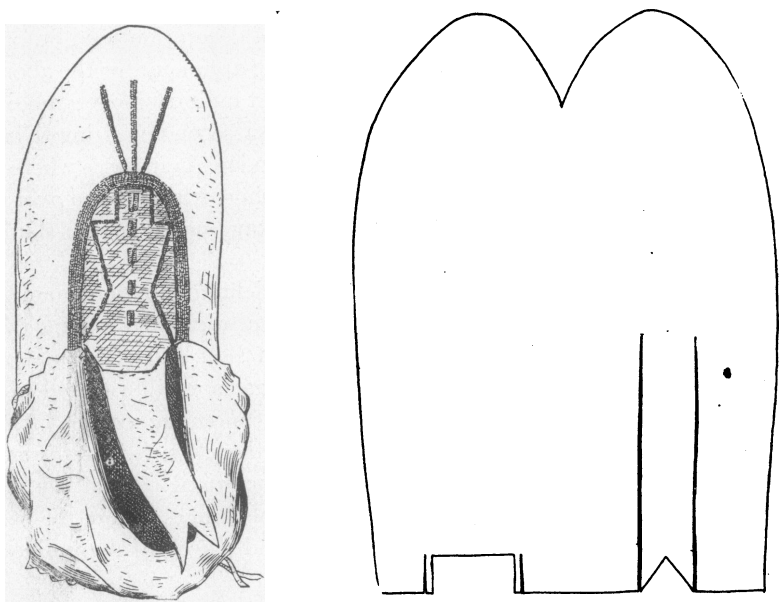


Fig. 2 (50-4516b). Blackfoot Moccasin Decoration and Pattern. The sole and upper are in one piece.

tion of these shirts (vol. 5, p. 135) we have shown reasons for assuming the type to have been dispersed from the Dakota. Also, it is here that we find this shirt to have been the badge of high office in the tribe (vol. 11, p. 7). Hence, what is said about the conventional knife sheath is consistent with this. Further speculation on this point is unnecessary, but some field inquiry might be worth while. Not all these pendants are triangular, some being rectangular, but the triangular one is the most frequent and most widely distributed.

<sup>1</sup> Carver, John, *Travels through the Interior Parts of North America*, London, 1778, 296.

## MOCCASIN DECORATIONS.

In order to give our studies of ornamentation a broader foundation we extended them to moccasin decorations. One of the first interesting cases is the U-shaped design on Blackfoot moccasins (Fig. 2). The structures of these moccasins have been discussed in vol. 5, p. 140,<sup>1</sup> but we see from the figure that the sole and upper are in one piece. The design is not placed directly upon the upper, but upon a red cloth which is then sewed down upon the leather. Such designs are very frequent on Blackfoot moccasins and are by tradition the older style. Fig. 3 reproduced from vol. 5 shows a similar design upon a hard-soled moccasin. Another variant of the design is shown in Fig. 4. In both cases the design is beaded upon red cloth as before and then sewed down upon the leather.

Now the question arises as to what suggested this peculiar overlay ornamentation which has no visible function in the structure. Of the immediate neighbors of the Blackfoot only the Sarsi, Assiniboin, and Northern Shoshoni have so far been observed to make occasional use of this style, but farther east and north we find it of frequent occurrence. Examples have been illustrated by Mr. Skinner in vol. 9, pp. 20 and 123, Figs. 6 and 41, and also in vol. 5, p. 144, Fig. 91 (reproduced here as Fig. 5). From the descriptions in these references, we see that here in contrast to the Blackfoot we have a structural relation between the U-shaped design and the moccasin pattern. The pattern required an insert of this shape to which the gathered edge of the upper gives a bold contour. On many of the moccasins from the Cree and Montagnais, around Hudson's Bay, this insert is covered with cloth, usually red or dark blue. On others, the insert is of leather but it bears the decorations, while the remainder of the upper is plain. This general pattern with a U-shaped insert is very common among the Cree, Saulteaux, Montagnais, Naskapi, D  n  , Thompson, Shuswap, and a few random specimens have been noted among the Crow and Shoshoni.

Now, returning to the Blackfoot we see that they differ from all these tribes only in that the decoration is upon a different moccasin pattern. The pattern they use does not require an insert, so in order to follow the same style they make a false one. Here we can have no doubt as to who are the imitators.

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<sup>1</sup> A far more exhaustive study of the subject has been made by Dr. Gudmund Hatt in, *Mokkasiner geografisk Tidsskrift*, 22 B. H. V. Copenhagen, 1914; 172-182; *Arktiske Skinddragter*, Copenhagen, 1914, 168-172, and who is about to publish an even more detailed discussion in English.

Another interesting problem is as to whether the Blackfoot have changed the structure of their moccasins or simply borrowed a style of decoration. The distribution may throw some light upon this point. So far, the structural pattern of the Blackfoot moccasin (Fig. 2) is found among the Western Cree, Thompson, Nez Percé, Sarsi, Assiniboin, Gros Ventre, and Northern

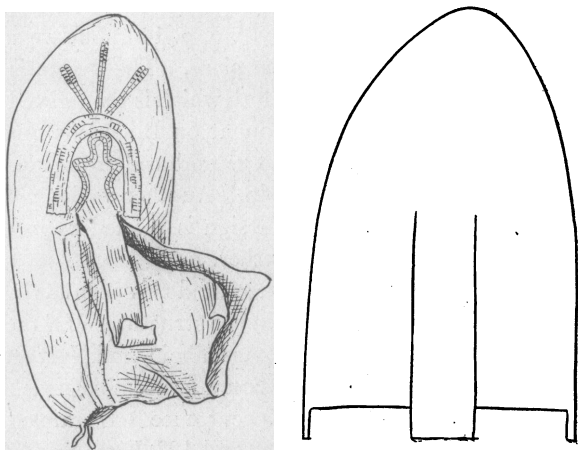


Fig. 3 (50-4566). Blackfoot Moccasin with Hard Sole, but Decorated as in Fig. 2. The upper is a separate piece of skin.

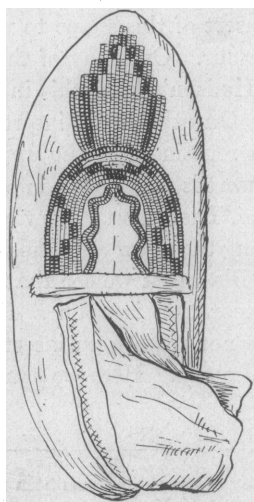


Fig. 4 (50-4406). Blackfoot Moccasin of Hard-soled Pattern with Decoration similar to Fig. 2.



Shoshoni. It is therefore a localized type in contradistinction to the insert pattern of the east. But curiously enough, only the Blackfoot and the small tribes under their influence have this decoration well developed. The chances then favor their having borrowed the pattern and substituted it for one of the eastern type, but retaining the old style of decoration. They also took over the hard sole type of moccasin typical of the Plains and in many cases placed the decoration upon it as well (Fig. 3). There is in fact a close similarity between the structures of Blackfoot one-piece moccasins we have just described and those of the hard sole type, for when we compare them with the eastern insert type, we see that the former have the common concept of an upper and a sole. One may suspect therefore that

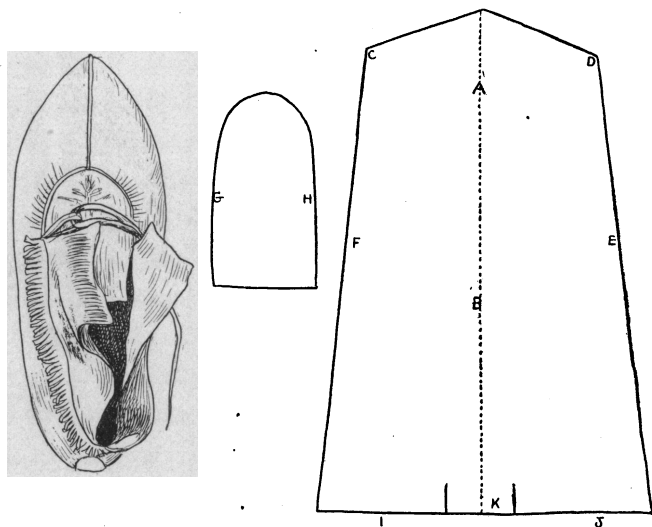


Fig. 5 (1-4614). Type Pattern for Moccasin with U-shaped Insert. For details of structure see vol. 5, p. 144.

this one-piece pattern was developed by a people familiar with hard sole moccasins. Thus we have here another instance of an intermediate structural type occupying an area between two other areas of contrasting types (p. 89).

We may turn to another style of moccasin decoration in the Plains, a simple band over the top. It takes two general forms as in Fig. 6. In our collections form *a* (the first five) occurs among the Blackfoot, Sarsi, Gros Ventre, Arapaho, Assiniboin, and *b* (the sixth and seventh) among the Cheyenne, Crow, Dakota, and Arapaho. In every case it is found on moccasins of the two-piece pattern and occupies the middle of an un-

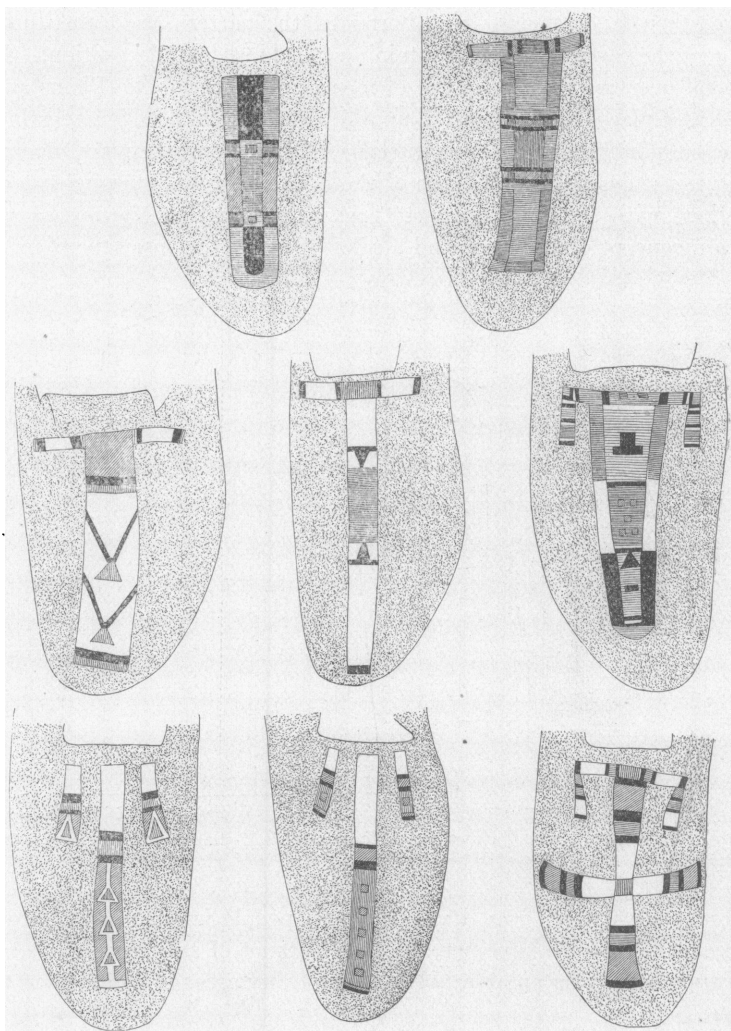


Fig. 6 (1-5709, 50-583, 50-1021, 50-585, 50-410, 1-5707, 50-582, 50-584). Arapaho Moccasins bearing the Banded-Upper **Type of Decorations**. From Bulletin vol. 18, plate I.

broken surface. There is, therefore, no structural relation such as we found in some eastern moccasins. Yet, when we look outside of the Plains area we find a similar band used to conceal an unsightly puckered seam. This is particularly true of Iroquois moccasins but also occurs on those of the Kickapoo, Sauk, Fox, Penobscot, and Delaware. A type specimen

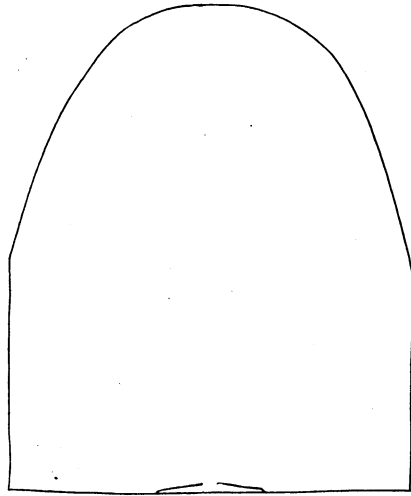
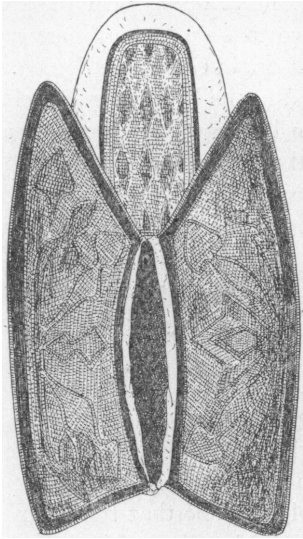


Fig. 7 (50-2263). A Sauk Moccasin with Overlay Decoration. A single piece of skin folded over the foot so as to form a seam on the instep.

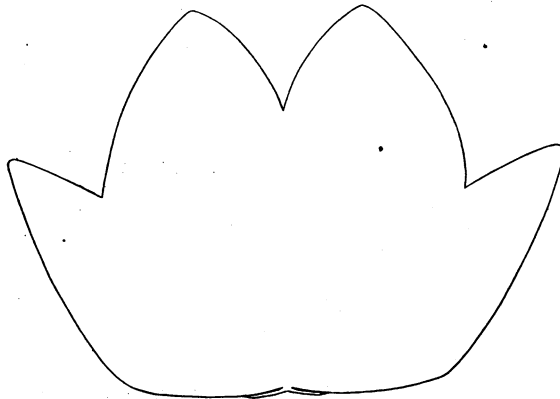
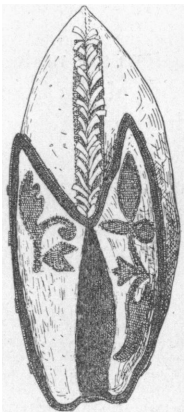


Fig. 8 (50-7557). Winnebago Moccasin with Top Fringe and Beaded Band Decoration.

is shown in Fig. 7. Usually the beaded or quilled designs are upon a strip of leather which is sewed down upon the moccasin.

Thus we have another case quite analogous to the preceding but one in which the evidence for a historical relation is far less convincing. Nevertheless, the selection of this style by the Iroquois, for example, is clearly an adjustment to the pattern and offers one more example of the structural control of costume decoration. The use of the same style in the Plains in disassociation from the pattern may prove to be a case of convergent evolution but the probability of its structural origin cannot be denied.

A special variation of this pattern is noted in the Winnebago specimen, Fig. 8. Here a fringe is placed on the seam between two narrow beaded bands. Among the Teton-Dakota we find the decoration produced upon a two-piece moccasin by sewing down the fringe into the beadwork (Fig. 9).

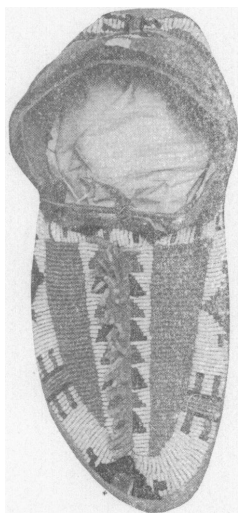


Fig. 9 (50-5221). A Hard-sole Moccasin with Median Fringe upon the Upper. Dakota. In this case the fringe is sewed down upon an even surface. Pattern same as Fig. 3.

One more problem in moccasin decoration may be cited. Among the Apache we find a curious pattern for the upper of a hard sole moccasin, Fig. 10. A slit is cut almost the full length of the upper and a long V-shaped piece inserted. Just why this is done is not clear but the result is two long seams terminating in a point. It is barely possible that the originators of this moccasin were familiar with the pattern in Fig. 5 and carried over the idea of an upper insert when adopting the hard sole two-piece pattern, but there is as yet no very good evidence in support of this.

Many moccasins of this pattern are undecorated save for a fringe on one side of the insert. The insert itself is often painted red, blue or yellow. When beads are added we find a border down each of the seams usually joining the border skirting the sole. This gives us a characteristic style of decoration in which two converging lines extend down the top of the upper (Fig. 11).

The Apache pattern is found among the Comanche and occasionally among the Kiowa but the style of decoration has been observed among the Cheyenne, Arapaho, Crow, Dakota, Assiniboin, Blackfoot, and Gros Ventre. In most cases the converging bands are placed upon the upper of a simple two-piece pattern as in Fig. 11b, but occasionally a fringe is added and the

enclosed V-shaped space painted. Since we find a continuous distribution of this style and all degrees of association between it and the essential structural features, the most acceptable explanation of the case is that the style of decoration developed on moccasins of the Apache pattern. Of course, this does not imply that the Apache were the originators.

We have now examined three styles of moccasin decoration in the Plains area and in each case found good reasons for assuming their development as due to the structural type of the original moccasin. While in the second case cited it may be that the style was independently developed in the Plains

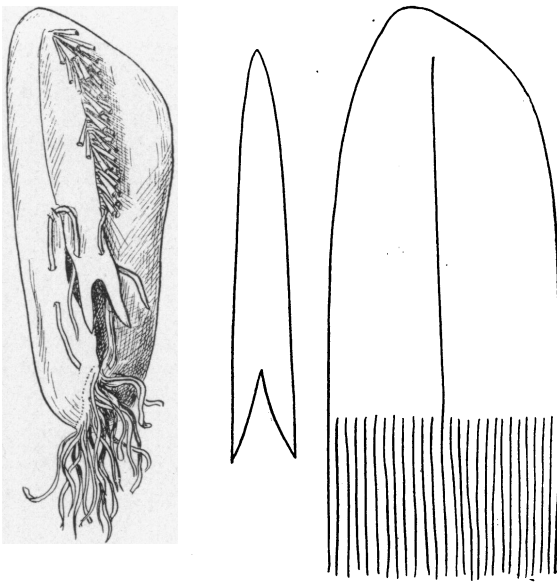


Fig. 10 (1-5423). An Apache Moccasin. The long tongue-like insert is usually painted and frequently bordered by beaded bands.

area, it is clear that in the east its use grew out of the structural concept. Since we have also found this principle to operate in body clothing in the same areas, a very important problem is presented. We must in the future give more consideration to the principle of survivals in style to the extent of transferring particular styles to new structural patterns. It does not follow though, that wherever we find the style upon a foreign pattern, the pattern has been changed. Thus, in case of the third type of moccasin decoration we have discussed, there is no reason to doubt but that the style was diffused

more widely than the structural pattern. This part of our investigation suggests that the further development of these problems in the Plains area may forge a new link in the chain of evidence for former historical connections.

In connection with dress decorations we found an interesting point in the symbolic associations of certain designs. A similar relation appears in certain moccasin decorations. A moccasin was collected from the

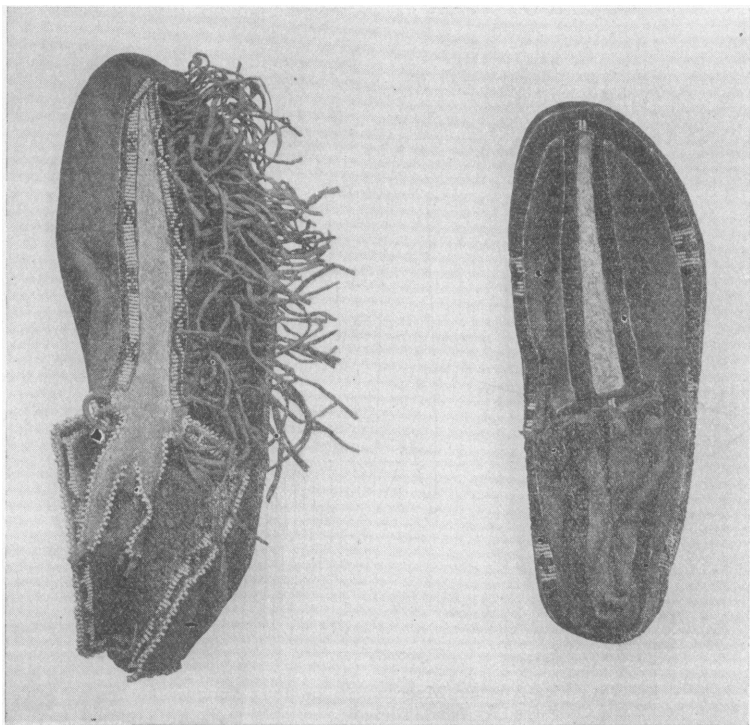


Fig. 11 (50-658a, 50.1-6339a). A Decorated Apache Moccasin and a Simple Two-piece Moccasin from the Arapaho, bearing the same style of decoration.

Dakota in the third style as described above (Fig. 12). In this case the beaded bands were in white and were said to represent the warpath in winter. Considering all that has gone before it is impossible to conclude that the placing of the bands in this way was first hit upon by an individual who wished to represent a warpath covered with snow.

The U-shaped design among the Blackfoot seems to have no definite symbolic associates but the maker of Fig. 3 said that the three radiating lines and the curved border represented the aurora and the human figure, the "white men of the north dancing." (The Blackfoot belief is that some white-colored men reside in the far north and that the aurora is their dance fire.) This appeared to be an individual interpretation but still is an example of the secondary use of a style of decoration in the expression of a mythical idea. In this case we can see just how much the maker may have originated, but since the same figures were made by others (Fig. 4) we must doubt that even here the maker did anything more than read into the conventional pattern.

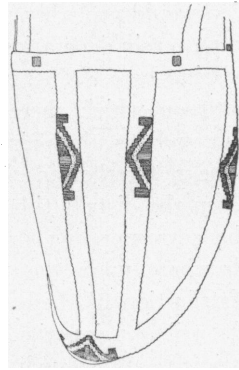


Fig. 12 (50-2993b). Symbolic Decoration upon Teton Moccasin of the Apache Style. The pattern is that of Fig. 3.

#### CONCLUDING REMARKS.

The preceding discussion does not consider the detailed design but only the decorated units of surface. For data upon this point we checked over the large series of moccasins in our collections. While the small figures used in the bands and fields of decoration are very widely diffused over the area, we failed to find that the style of decoration influenced the choice of them. Elaborate designs are unsuitable because of their large size but beyond this there seem to have been no limitations to their use. The two-piece moccasin of the Plains with its broad unbroken expanse of upper encouraged more elaborate designs than the patterns of the east. In the latter region the ankle flaps and sometimes an enlarged tongue were taken as the decorative surfaces, thus giving an entirely different objective aspect. But aside from the mere difference in the size of the decorative fields and the influence of the local modes of artistic expression, we have found no correlation between these styles and the design detail.

The method we have followed in these investigations differs from that formerly employed in that we have not based our conclusions upon objective resemblances but upon the correlations of such resemblances and facts of culture distribution. Thus the reader may object to our interpretation of the resemblances by which we group moccasin styles in Fig. 11 on the ground that we have simply selected from a large number of moccasins those that happened to resemble the chosen type. In this case the underlying assump-

tion would probably be that the whole was merely an accident of variation in moccasin decoration. The correlations we have cited have an important bearing here. The style of decoration carries three rather distinct units between which there appears no necessary association; the converging narrow lines, the painted space, and the fringe. The tendency of these to appear together in the Plains complicates the accidental interpretation. Then the distribution shows this style to prevail among these tribes using the corresponding structural pattern of moccasins, while its appearance elsewhere upon the two-piece moccasin is but occasional. Finally, the distribution of these random examples is geographically continuous with the tribes using the corresponding structural patterns and relatively restricted. It is such correlations as these that we have appealed to for guidance in our interpretations.





