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DISTRIBUTION OF MOCCASIN DECORATIONS AMONG THE  
PLAINS TRIBES

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## INTRODUCTION

The objective in this study is an empirical inquiry as to the geographical distribution of moccasin decoration in the Plains Area and its fringes. The concern is not so much with the economic, aesthetic, and symbolic motives involved, or with the socio-psychological functioning of this specific culture trait, as with the way in which the trait has spread and with the correlation of both geographical and analytic methods of approach. One reason for choosing the problem was that it promised to be complex and the objective data difficult to evaluate. On the other hand, the situation with respect to this trait is typical of what confronts the investigator in any large museum collection. These collections have been brought together in the faith that they would constitute a body of data not merely illustrative of the cultures represented, but would in themselves be true indices of the phenomena involved. So the following brief recapitulation of our investigations is offered as a contribution to this end.

Moccasin decorations have been discussed in some detail by Kroeber<sup>1</sup> and Lowie.<sup>2</sup> The former selected fifteen decorative types, on the basis of which he sought to group the various tribes. We first made use of these types, but found it difficult to group all our collections systematically under this scheme. Further, a large part of our material was not available to Kroeber at the time. So with this new material in hand, we considered, first, the method of beading, and from this, proceeded to the basic pattern concepts, evidently in the minds of the decorators. In conformity with the traditions of the subject, previous authors concerned themselves with the establishment of tribal types and the comparing and contrasting of them, rather than with the distribution itself. Yet it is always difficult to visualize the true geographical relations hidden in such discursive texts. Hence, in taking geographical distribution, rather than tribal characteristics as our objective, we are not in any way repeating the work of others.

This is a convenient place to acknowledge the aid of those contributing to this study. The task was a laborious one, requiring frequent re-checking of the collections and the sketching of numerous designs and compositions. The exhibition collections of the Museum were worked over by Miss Alvira A. Kirk; for the final examination of the storage collections and the re-checking of all specimens, recognition is due Miss Bella Weitzner.

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<sup>1</sup>Kroeber, A. L., "Ethnology of the Gros Ventre" (*Anthropological Papers, American Museum of Natural History*, vol. 1, 156-160, 1908.)

<sup>2</sup>Lowie, Robert H., "Crow Indian Art" (*Anthropological Papers, American Museum of Natural History*, vol. 21, 307-314, 1922.)

## THE COLLECTIONS

The materials used were collected during the interval from 1898 to 1914 and can be safely taken as representing the moccasin craft of the period 1890-1915. This condensation of material into a twenty-five year period is fortunate, because the collections are contemporaneous and in so far present a cross-section of the craft at one point in its development. More than half these moccasins were collected by members of our staff while engaged in ethnological work; the others were secured through amateur collectors. In order to test the merits of the two, all our tabulations were made first upon our own field collections, then upon those from amateurs. No significant differences were observed; hence, in this respect these moccasins constitute a homogeneous collection and represent fairly the tribes from which they came.

So far, then, the sampling is satisfactory, but there remains the question as to whether the moccasins of one tribe are more faithfully represented than those of another. This is a difficult point to decide. The number of moccasins varies greatly and should any one of our classifications develop ten types of moccasins, then each tribal sample, to be adequate, should contain a number large enough to give approximate certainty that all the types current in the tribe were represented. The usual methods of collecting are not merely sampling at random, but partly selective, in that the field-worker tries to avoid repetition of type, by choosing from the varieties he observes. On the other hand, the amateur collector is, barring certain standards of taste and expense, apt to proceed at random. However, an examination of our material will throw some light on this problem. Thus, we find in the Museum's collections, eight decoration types, and by comparing the number of types accredited to each tribe with the total number of moccasins available, we note (p. 90) that while the number of types tends to increase with the size of the collections, the proportion is a decreasing one. Twelve samples in one case, were sufficient to reveal four types, while in two others, nine samples gave five types. In the table two subtypes are listed, but in all comparisons these are grouped under the main types, eight in all.

There is, however, another factor to be considered. Not all moccasins are decorated; according to the writer's observation only a small percentage. Hence, the number of moccasins available to the collector may depend upon the size of the tribe, its economic condition, state of health, etc., as well as the mere intensity of the culture traits involved, and there is every reason to believe that the relative numbers of mocca-



sins in our collections are in part indicative of these conditions. It so happens, that during the period under consideration, reservation life was uniform and the rationing system was in vogue, so it is fair to assume that the strength of the tribe and the intensity of the trait will be reflected in the size of the collections. The history of the Museum's field-work indicates that the tribes represented were worked about equally, except in cases where the collections are almost negative. So, these further considerations tend to offset the disparity between number of specimens and of types, because the same causes may operate on both.

The next question may well refer to the sampling of the Plains Area as a whole. The tribes of the area not represented in our table are Arikara, Omaha, Ponca, Oto, Kansas, Osage, all on the eastern fringe. This leaves something to be desired, but nevertheless the area as a whole is well covered.

### CLASSIFICATION

Bearing in mind that we were considering moccasin decorations only, our first task was to examine the entire lot of specimens, irrespective of tribal origin and to determine the types. The only materials used in decoration are quills and beads, the latter of white manufacture. These materials, of varying colors, are laid over the surface of the upper, in whole or in part, and the basic pattern seems to lie in the method of dividing the surface to be decorated. However, in a former paper it was shown that the structure of the moccasin goes far in determining the general decorative pattern.<sup>1</sup> Hence, from our point of view, it is best to limit our study to moccasins having separate soles, or to the dominant Plains type. Further than this we shall not differentiate as to structure, because the upper is decorated before made up into a moccasin and therefore treated as a flat surface, limited only by the contours of the structural pattern. Over and above these the decorator is theoretically free to do as she wills.

Casual inspection of the specimens shows two general classes: those having the entire surface decorated, those having but parts of the surface so covered. But while these distinctions may be fundamental, they are obviously inadequate to tell the story, for basic general patterns in apportioning the surfaces are in evidence. So we have determined the following types:—

1. Partially covered uppers. It is, of course, obvious that the simple form is an upper without any kind of decoration, or a blank, the only border being that defined by the edge of the skin.

<sup>1</sup>Wissler, Clark, "Structural Basis to the Decoration of Costumes among the Plains Indians" (*Anthropological Papers, American Museum of Natural History*, vol. 17, part 3, 1916), 105-111.

Type A—a border only

Type B—a central bar without border

Type C—a border with a central bar extending to the toe

Type D—the same as C, except that it has two parallel central bars

Type E—a central U-shaped or other figure, without border

2. Entirely covered uppers.

Type F—without border

Type G—a border and central area

Type H—a border with a central bar similar to Type C above

Type I—a border with parallel central bars, similar to Type D above

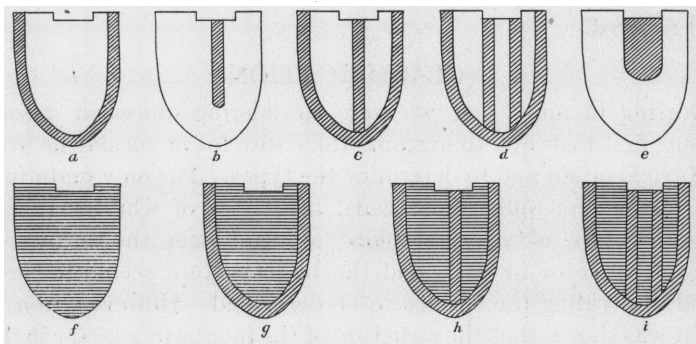


Fig. 1. The Types of Moccasin Decoration. The shaded portions represent the surfaces covered with beads or quills.

These types are presented diagrammatically in Fig. 1, the shaded portions indicating beads or quills. No difficulty was experienced in sorting the specimens, for with a few exceptions the variants were obvious combinations of these types, as shown in the tabulations. The only case in which the grouping was widely arbitrary was with Type E, under which were placed all decorations occupying the locus of the shaded area in the figure, regardless of whether they were of the shape indicated in the drawing, or even realistic.

When decorating a moccasin with a border-unit, the border is completed first; if Type H or I is followed, the one or two bars follow, after which the intervening spaces are filled. The border and the bars are usually of the same color, while the intervening spaces are also alike, but of a different color from that of the border and the bars. The fixed order

of procedure in laying on these decorative units is doubtless responsible for the similarity between border and bar designs. On the other hand, these designs seem in no way to restrict the freedom of choice in respect to the designs for the intervening spaces.

### GEOMETRIC AND FLORAL DESIGNS

It is apparent that the decoration types we have listed tend to exclude the class usually designated as floral, thus making this a study in geometric art. The justification for this lies in that the use of floral designs is marginal to the Plains Area on its northern, eastern, and southern frontiers, and, hence, an adequate consideration of such decorations would take us much farther afield. Also at the outset, we chose as our subject of inquiry the geometric types of decoration regarded as characteristic of the Plains. However, it happens that floral designs almost invariably accompany the soft-soled, or one piece moccasin. Such moccasins do occur in the Plains Area occasionally, as is shown in the table, and again the designs are uniformly floral. Yet, in a few cases, floral designs have been found upon hard-soled moccasins. It follows, then, that not quite all hard-soled moccasins fall under the decoration types we have designated for the reason that floral designs cannot be fitted into such a classification. This study is then based upon hard-soled moccasins bearing geometric designs, and the enumeration of types and subtypes in the table should be so interpreted.

Tribe	Hard Sole	Soft Sole	Number of Types
Dakota	111	3	8
Crow	68		10
Arapaho	56		8
Assiniboin	37	6	6
Southern Cheyenne	30		6
Blackfoot	28	3	6
Sarsi	22	2	5
Gros Ventre	17		5
Plains-Ojibway	3	4	2
Plains-Cree	12		5
Northern Cheyenne	12	1	4
Hidatsa-Mandan	12		5
Mescalero Apache	10		3
Shoshoni	9		5
Ute	8		5
Rio Grande Pueblos	8		4
Comanche	8		5

Tribe	Hard Sole	Soft Sole	Number of Types
Kiowa	6		2
Iowa	5		3
Winnebago	3	5	3
Nez Percé	2		2
Wichita	2		2
Pawnee	1		1
Sauk and Fox	1	7	1
Jicarilla	1		1
Menomini		8	
Potawotomi		5	
Eastern Dakota		2	

### QUILL AND BEAD DECORATION

Since beads were introduced in recent times, whereas the quill technique was in use at the time of discovery, it may be assumed that the latter is the older. The question naturally arises, then, as to whether the types of decoration have been radically modified since the introduction of beads. No prehistoric moccasins from this area are available to us, nor is there reason to believe that many of the quilled examples in our collections were made at an earlier period than were those of beads. Yet it is conceivable that the types of decoration employed may differ, for no one has seriously considered the degree to which the old quill patterns were carried over into beadwork. So, in the preliminary study of our material, we grouped all the moccasins according to decorative materials with the following results:—

All quills	43
All beads	400
Beads and quills	72
	—
Total	515

A comparative study of these groups was made by tribe and by Types A to I, but no significant differences appeared; hence, in this study we have disregarded the materials of decoration.

### DISTRIBUTION

At the outset we selected the hard-soled moccasins for study, thereby eliminating other kinds of moccasins. The tribal distribution of the types in our collections is shown in the table: the actual number of specimens, with approximate percentages.

Distribution for Types of Moccasin Decorations

Tribe	Type A	Type B	Type C	Type D	Type E	Type F	Type G	Type H	Type I	Type A+E	Type D var.	Totals
	No. %	No. %	No. %	No. %	No. %	No. %	No. %	No. %	No. %	No. %	No. %	
Dakota			11 11	3 4	10 11	5 6	45 41	23 13	7 7	7 7		111
Crow	8 11		2 3	1 2	9 14	1 2	27 40	8 11	4 6	6 8	2 3	68
Arapaho	15 27		1 2	2 3	3 5	4 7	16 29	14 25		1 2		56
Assiniboin	4 10				6 16	3 8	17 48	3 8		4 10		37
Southern												
Cheyenne			2 6	2 6		3 10	14 48	5 17			4 13	30
Blackfoot		1 4			8 28	1 4	15 53	2 7		1 4		28
Sarsi		1 5			6 27	1 5	11 50	3 13				22
Gros Ventre		2 12			1 6		7 41	3 17		4 24		17
Plains-Ojibway						1 33	2 67					3
Plains-Cree		2 18			1 8		7 60	1 8		1 8		12
Northern												
Cheyenne			1 8			1 8	5 42	5 42				12
Hidatsa-Mandan		2 17			1 8		6 50	2 17		1 8		12
Mescalero												
Apache							5 50				5 50	10
Shoshoni	1 11				1 11	1 11	5 56	1 11				9
Ute	2 22	2 22	1 11		1 11			2 34				8
Rio Grande												
Pueblos	3 37						4 51	1 12				8
Comanche				1 12	1 12	1 12				1 13	4 48	8
Kiowa					2 34						4 66	6
Iowa		2 40					2 40	1 20				5
Winnebago							1 33	1 33	1 34			3
Nez Percé					1 50							2
Wichita					1 50			1 50				2
Pawnee					1 100						1 50	1

The first point is the distribution of types. A casual inspection of the table shows that Types B, E, G, and H approach universality, or that one or more examples may be expected almost anywhere in the area. On the other hand, C, D, and F have a more restricted and a somewhat coincident distribution. Type A does not occur in its pure form and I is limited to three tribes. Yet, after all, these differences are not clear cut, except in case of I, and suggest that all these types tend to spread over the area.

We frequently meet with the expression "intensity of culture" and one may infer from the table, and from the relative richness of the tribal collections, that moccasin decoration varies in intensity from tribe to tribe. No doubt this is the case, and it is a fair assumption that the greater the intensity of the trait, the more completely will the types A-I be represented. In other words, it is important to note the number of types present as follows:—

1. Wichita, Pawnee, Kiowa, Mescalero
2. Nez Percé, Plains-Ojibway
3. Comanche, Iowa, Rio Grande Pueblos, Winnebago
4. Northern Cheyenne, Gros Ventre, Hidatsa-Mandan, Plains-Cree
5. Assiniboin, Blackfoot, Shoshoni, Ute, Southern Cheyenne, Sarsi
- 6.
7. Dakota, Arapaho
8. Crow

If these are plotted upon a tribal map, the geographical distribution of the intensity of the trait is suggested. In general, (Fig. 2) this takes the form of a zoned distribution around a center of greater range of types. The chief peculiarity of this distribution is that the median number of types gravitates to the north and the smaller to the south. Thus, in so far as it is legitimate to interpret the number of types present as an index of trait intensity, we can say that the Crow, Arapaho, and Dakota tribes are the leaders in moccasin decoration of these types. Note should be taken of the close geographical association of these tribes. Assuming that the chief stimulus to the use of the decorative types we defined, radiates from these neighboring tribes, it appears that the northern and western tribes were influenced more than the southern and eastern. Students of this area are aware that a number of culture traits show this same tendency. The cause may be partly in the physical environment and in the greater pressure of colonization upon the eastern and southern borders.

Further, the material we have from the fringes round about is not quite comparable to that from the interior, and there is every reason to believe that a differentiation of the several divisions of the Plains-Cree and the

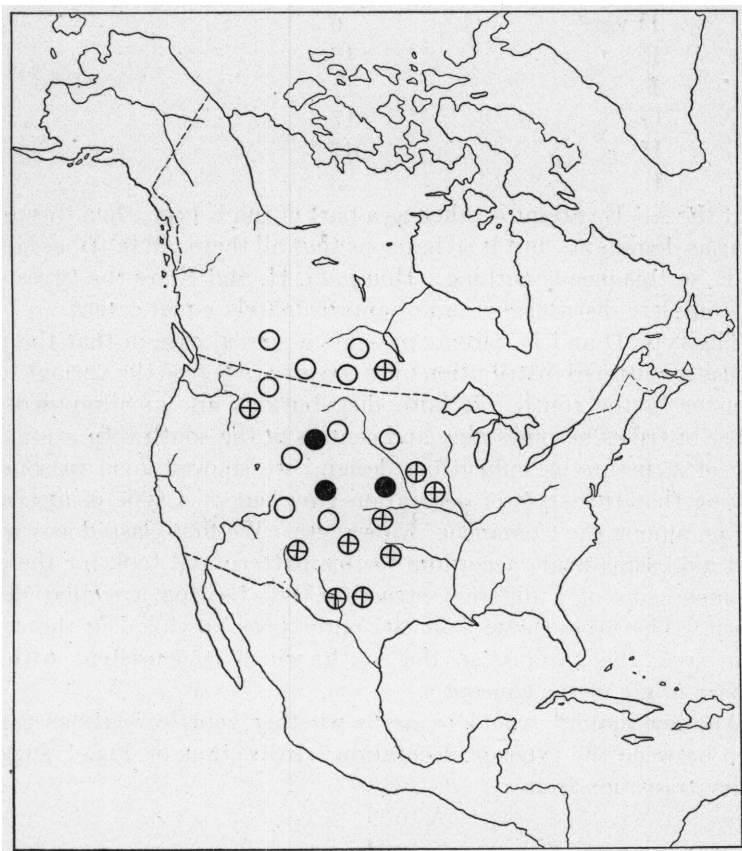


Fig. 2. Tribal Frequencies for Decoration Types. The black spots give positions of tribes with seven to nine types; the open circles, four to six types; the crosses, one to three types.

Salish would pass the fringe quite around the whole distribution, thus indicating a more symmetrical spread.

One can, of course, compare the plotted distributions for each type separately. A survey of the table indicates the number of tribes showing each type as follows:—

A+E	9
B	12
C	6
D	6
D var.	6
E	16
F	11
G	17
H	17
I	3

If the A+E variant is taken as a part of the E type, then this might appear as dominant; but it so happens that all these fall in tribes having type E, so this means nothing. Hence, G, H, and E are the types with most complete distribution and of approximately equal extent.

The type D and D variant presents a special case in that the pure type has a scattered distribution over the area, whereas the variant tends to cluster in the south. If both distributions are superimposed, the number of tribes becomes nine and centers in the south. In a previous study of structure as influencing design,<sup>1</sup> we showed good reasons for believing that this style of decoration grew out of a type of moccasins common among the Comanche, Kiowa, etc. We first classed as variant D, all moccasins made according to this pattern and took for the pure type moccasins of a different structure, but bearing a similar design pattern. The table shows that the pure types prevailed in the center of the area, the variants in the south, which is consistent with the southern origin of the concept.

Another inquiry would be as to whether genetic relations can be set up between the types of decoration. Inspection of Fig. 1 suggests an easy transition from

A to G  
C to H  
D to I  
B to E

However, A does not occur alone, but in combination with E. On the other hand, it has been shown<sup>2</sup> that E is a heritage from a widespread structural type of soft-soled moccasin; E is also one of the moderately frequent decorative types for the area under discussion. The inference would then be, that the border was added after the introduction of E. At least the distribution is consistent with this assumption.

<sup>1</sup>Wissler, *ibid.*, 107.

<sup>2</sup>Wissler, Clark, *ibid.*



In the case of C and H, it so happens that the latter has the greater distribution and tends to a greater extent than C. There is also the suggestion of a central position for C. Again C does not occur except where H is found, but this may not be significant owing to the wide range of H. So no very satisfactory conclusion can be drawn, save that, so far as the evidence goes, it favors the later origin of C.

Type I is limited to the Dakota and the Crow, except for a specimen from the Winnebago. Its distribution is thus greatly restricted, but confined to tribes not particularly addicted to the use of D. One may, therefore, seriously question the assumption of a genetic relation between the Types D and I.

In practice, it proved somewhat more difficult to distinguish between B and E than in other cases. This again is reflected in the distributions, both being of about the same extent, though by no means always coincident. Yet the plotted distributions give about the same picture. The inference would then be, that these types are intimately related in origin.

Thus, by analysis on the one hand and by geographical distribution, on the other, we get a close view of the moccasin decoration trait in the Plains. While there are a few cases of genetic relation between the observable types, the fact remains that, for the most part, the various forms of decoration tend to a uniform distribution, indicating that either the art as a whole was distributed at about the same time, or that its diffusion went on so rapidly that most of the forms reached the periphery before the initial ones disappeared at the center. That the center of influence lay in the geographical heart of the area, is however, indicated by the greater intensity of types (Fig. 2). So the difference between this and many other cases of trait distribution in the Plains, lies in that all the types, without exception, are found contemporaneous at the center.

Another way of approaching our problem would be the obvious one of considering the relative frequencies of a type. The above conclusions are based solely upon the presence and absence of a type, but it is conceivable that the relative frequency of a type may be so distributed as to reveal a center of intensity, as was the case with the number of types. To get at this relation, our table should be reduced to percentages, or to the basis of 100 moccasins to a tribe.

The range of frequency is as follows:—

A+E	2-24
B	4-40
C	2-22
D	2-12
D var.	3-66
E	5-50(100)
F	2-33
G	29-67
H	7-50
I	6-34

It is not easy to interpret these data, but they seem to indicate that type G is the prevailing one, since no tribe ranks below 29 percent. The lead in the upper limit is not so decisive, and in any case great allowance must be made for the small number of moccasins in some collections. Study of the table quickly shows that the high percentages fall most often in the small lots. For this reason, the value of further consideration of the upper limits is doubtful. On the other hand, the significance of the lower limit cannot be so readily negated. Hence, the suggestion is that type G is the prevailing one, and this is not contradictory to the facts of distribution.

Turning to the types as figured (Fig. 1), it will be seen that G is, after all, the simpler form of heavily beaded moccasin; I, the most complicated, has a very narrow distribution, whereas H, the intermediate form in complexity, has also an intermediate distribution. Of the partially beaded types, B, a simpler form than D, has also the wider distribution. So in the end, while the types have shown a tendency to spread over the whole area, we find the usual relation of the simple and the complex forms, whose relative distributions indicate that the latter evolved out of the former and is the more recent in order of origin.

#### DESIGNS

As noted previously, the general lay-out of beads and quills seemed to have little influence on the choice of designs employed. Reference to a collection will show how the monotony of borders, bars, and intervening spaces is relieved by the use of geometric and occasionally by realistic designs. After an inspection of our collections, six types of design were differentiated and their frequencies determined for the hard-soled moccasins in our storage series. We did not carry the study further for reasons to be stated later.

The illustrations reveal the range of variation for these figures, the classification being somewhat arbitrary, but still definite. When designs were encountered that would not readily align with the chosen types, they were ignored. However, such cases were not numerous. Another essential point in explanation is that the appearance of the design upon a pair of moccasins was counted but once; hence, the tabulation will give the number of pairs bearing one or more of the designs. Naturally the same pair may count under each design type.

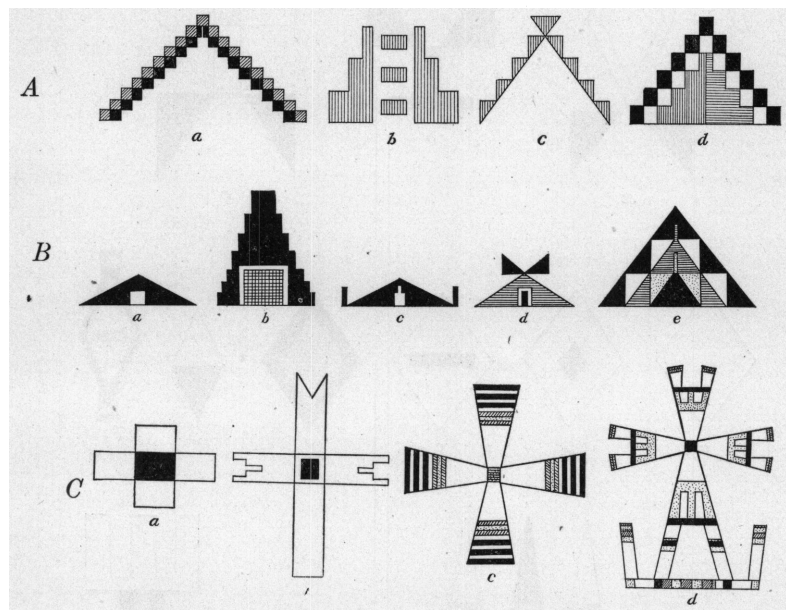


Fig. 3. Variants of Moccasin Design Types, A, B, C. Designs under B are frequently called tipis; those under C are usually called stars.

One of the first points to consider may be as to how far these types can be taken as representative of the whole. To this we have given careful consideration. Study sketches of the designs were made, thus making it easy to check over the individual designs, and upon the basis of such a study, we concluded that the designs selected well cover the field. A few simple figures, as small squares and bars, are universally used, both separately and in combination, and our expectation was that these would prove to be fundamental and widely distributed. This they are, but so also are several designs in the table; hence, nothing was to be gained by tabulating the frequencies for these.

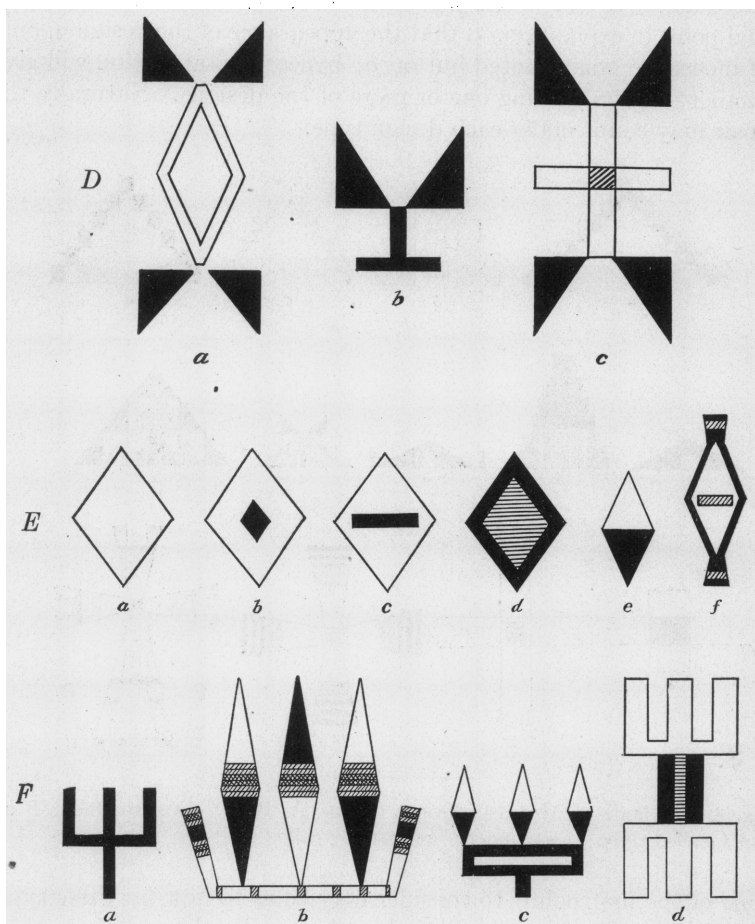


Fig. 4. Variants of Moccasin Design Types, D, E, F

Some use of floral like designs was made in the Plains Area, especially on the eastern and northern borders, but nothing was suggested by this distribution except that it was the fringe of a larger area to the east and north. Strictly realistic designs are rare on moccasins, our examples being for the most part birds and most characteristic of the Southern Cheyenne, but even here they are in the minority. For example, the study collections gave the following: bird figures on eight moccasins among the Assiniboin, Dakota, and Southern Cheyenne. Other animal forms occur but twice.

#### TRIBAL DISTRIBUTION OF DESIGNS

	A	B	C	D	E	F
Arapaho	4	9	7	4	2	
Assiniboin	4	5	3	3	8	1
Cheyenne	4	3			1	
Southern Cheyenne	7	3	4	3	1	
Northern Cheyenne	5	2	2	1		
Blackfoot	7	5	3	2	4	3
Comanche	2		1		1	1
Crow	3	8	11	1	4	
Dakota	21	23	20	3	2	1
Gros Ventre	3		1		2	1
Hidatsa-Mandan					1	
Winnebago	1	1				
Kiowa	2		1	1	1	
Nez Percé	1					
Plains-Cree	7		3		4	1
Sarsi	4	1	3		2	
Shoshoni	5	2			1	
Ute	1	3	3	1		
Mescalero	3	2	2		2	
Jicarilla Apache	2		1			
Rio Grande Pueblos	2	1	2		2	

Returning now to the design types studied and their distribution, their presence and absence may be noted. The total number of tribes represented was twenty-one and the number of tribes for each design was found to be as follows:—

Design A	20
Design B	14
Design C	16
Design D	9
Design E	16
Design F	6

One may infer, therefore, that the most used design is A and the least used D and F. In fact, A goes far beyond the boundaries of the Plains Area. It is therefore safe to infer that D and F are of recent origin and belong to the interior of the Plains Area, their geographical center falling in the northern part of the Plains. Again, reference to the designs suggests that D and F run to combinations of the simpler design elements, and so tend to be complex in contrast to the others. It follows then that the more complex design composition has a more restricted distribution.

Turning now to A and B, it may be objected that one is an outgrowth of the other, and this is supported by the observation that B occurs in no tribe where A is absent. Anyway, the more restricted distribution for B is consistent with its later appearance. In general, however, the simpler forms of designs A, B, C, and E are so widely distributed over the area that no satisfactory distinction can be made between them.

• As previously noted, these designs are laid on regardless of the decorative type as previously defined. All of the design types we have discussed can be used as border and bar embellishments regardless of the type, and their more elaborate forms and combinations can be used on the intervening spaces. We compiled a table showing the correlations for decoration types and design types, but as no differences could be observed, we omit it from the text.

### CHOICE OF COLORS

Records were made of the colors employed in decoration. Quills are dyed by the Indians, but beads are purchased from the trader's stock. It is true, however, that dyes were secured from the trader also. Quills used on these moccasins show a range of ten colors. No moccasins have less than three colors, and but one more than four. However, this exceptional one carried seven colors. The total list of colors is red, orange, green, blue, yellow, purple, pink, lavender, light purple, and white. The preferred colors were yellow, red, green, and purple.

With beads the range of colors was slightly greater. The number of colors used on a single moccasin ranged from two to nine, the average being four to five. The preferred colors in beads seem to be white, red, green, yellow, blue.

As a background color in beaded moccasins, white prevails almost to the exclusion of other colors. The only other showing more than a sporadic use is blue. The only tribe that prefers another color to white

is the Assiniboin, who prefer blue. No correlation could be found between the color chosen and the design types, nor for the decoration type. Also the range of colors over the area seemed to be uniform.

### SPECIFIC DESIGN COMPOSITION

Another line of inquiry suggests itself, if one suspects that certain decorative compositions tend to repeat themselves in collections. If such were the case, one could single out these compositions and follow up their tribal distribution. We have given more than casual consideration to this, but shall not go into details here. An illustration will suffice. Thus, a moccasin figured by Kroeber<sup>1</sup> may appear as an original fancy of the maker, but there is another in the Dakota collection, different in minute detail, yet more effectively presenting the whirling appearance of the border. This suggests a general composition concept. Analogous examples are to be found in the Cheyenne collections and suggestions of it elsewhere. One notes in the Cheyenne collection, however, a tendency to use a flying bird in borders, always headed toward the toes. Perhaps this is the parent pattern composition. So it is clear that a pattern concept has been diffused over a part of the area.

We sought out other examples of such specific composition concepts, but they tended to restrict themselves to single tribes, with an occasional neighbor. Examples of these are to be found in the literature and have been discussed by Kroeber<sup>2</sup> and Lowie.<sup>3</sup>

### SUMMARY

Our analysis of moccasin decoration gives eight types and two combination types. The data on distribution for these types indicated that they tended to spread over the area, but that one type, the most complex, had a restricted central distribution. The tribes manifesting the greatest number of types also occupied a central position. When the relative preferences for types are considered, there is a marked leaning toward our type G. Rating the types according to complexity and to apparent genetic relationships, gave results in part consistent with the facts of distribution. No differences were observed between bead and quill moccasins.

The specific designs on these moccasins fell, for the most part, under six types. The choice of these was found to be independent of the

<sup>1</sup>Kroeber, A. L., "The Arapaho" (*Bulletin, American Museum of Natural History*, vol. 18, part 1, New York, 1902.)

<sup>2</sup>Kroeber, *ibid.*

<sup>3</sup>Lowie, *ibid.*

decorative type and of the tribe. There were, however, differences in preference for the successive designs, ranging from twenty tribes to six. Again, the two obviously complex design types were narrow in distribution as opposed to those of simpler form. The range of colors was found approximately uniform for the whole area.

In general, this study of moccasin decoration in the Plains Area shows, first of all, a decorative art complex which tends to be distributed uniformly over the area. By analyzing this art in various ways, and comparing the distribution of the elements so segregated, it appears that, in the main, where one element is found the others may be expected. The occasional tribal omissions appear rather as due to accidental variation in the method of collecting than as significant of real differences. This uniformity is somewhat in contrast to other kinds of complexes in this area, as the sun dance, societies, coup-counting, etc., in which the elements drop out successively as one approaches the periphery. However, this difference is relative, since we found evidence of greater intensity for the art complex among the few tribes constituting the geographical center of the area. We also observed that to a slight extent the more complex compositions massed around this center. So it cannot be said that the moccasin art complex is fundamentally different from the other traits enumerated, the suggestion being that it differs from them only in organization and functioning.

Our experience with this and other complexes indicates a loose interrelation of parts. The use of one decoration type, for example, does not exclude the equal use of the others, nor was it found that a type of design was in any way dependent upon the decoration type. In other words, about the only limits imposed are found in the structure of the moccasin, leaving decoration types and design types free to diffuse as they will. But the case is not quite so simple, because the moccasin itself was diffused. The basic hard-soled structural form tends to be exclusive, the soft-soled intrusion being marginal. With the spread of this moccasin could have gone the decorations but, as is more probable, any new kind of decoration workable on this type of moccasins could soon cover the area. Yet, there is another fact to consider, since the bead and quill decorations upon other objects use the same designs as shown in Figs. 3 to 4, also the same colors as used on moccasins, the earlier diffusion of Plains decorative art as a whole would influence moccasin art, and the reverse. It follows, then, that the decoration type is the feature peculiar to moccasins and not the design types. The latter occur upon other objects in our collections with about the same frequency as upon moccasins and it



appears that the distribution is about the same. Hence, what we have found true of moccasin art is probably equally true of all bead and quill decoration in the Plains Area.

Again this study failed to reveal a tribal type of moccasin decoration that can be taken as characteristic. This applies to the details of design as well. The only phase of this art approaching tribal individuality lies in composition, but even here a specific composition was found to have spread to a neighbor or two, and even when this was not the case, the composition did not prevail to the exclusion of other equally original compositions, and when one looks closely at the beaded art of the Plains, it appears that composition is the only aspect of the craft open to individual expression, since the designs and the decoration types are highly standardized for the area as a whole. So instead of tribal standard styles, we encounter copies of individual compositions, all probably short-lived, and hence confined to a part of a tribe with scattering copies elsewhere, rarely rising to the level of a prevailing standard tribal style. If one turns to the published comparative studies of tribal Plains art, he finds the discussions labored and vague, often pointless, the reason being that what tribal distinctions there are lie in subtle summations of many small variations in technique, rather than in the elements of the art itself. Or, to put the case in another way, the beaded art of the Plains is an affair of the entire area, rather than of the tribe.

