

OREGON INDIAN BASKETRY  
TYPES AND DISTRIBUTION

APPROVED

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A THESIS

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## INTRODUCTION

The purpose of this thesis is to determine in as far as is possible, the types of baskets produced by the Indians of Oregon, their distribution and their affinities to those in adjacent areas.

The problem is complicated by two main factors; one, the few ethnographic studies available for most of the Oregon tribes, and two, the undocumented time range between the historic and archeological horizons involved. The ethnographic studies are best for those tribes which border the California groups. This lack of information is understandable since by the time any systematic work was undertaken many of the Northwestern Oregon tribes had been depleted or wiped out by the many epidemics which had swept the lower Columbia region in the early eighteen hundreds. The time range may be divided into two main divisions, that of pre-history, where the information is archeological in nature, and that of historic times where the information is to be found in the early historic accounts and modern ethnographic studies of native groups. The time period between the archeological horizon and historic times is one which is undocumented.

Since the earliest evidence, to-date, of the occupation of the American continent is found in the Intermoun-

taine Plateau, it seems likely that Oregon would hold many clues as to the nature of these early peoples as it was in the path of subsequent migrations into adjacent territory. Substantuating this hypothesis, recent archeological researches have revealed a culture a considerable antiquity in Oregon. Therefore, a study of the basketry techniques used by these early peoples should help in filling in one of the gaps in our knowledge of the affinities of the early cultures of Oregon to those of adjacent areas.

The existing knowledge of basketry techniques of the Oregon tribes within the historic period needs organization, criticism, and evaluation. Much of our knowledge comes from sources which are often vague as to exact meaning and indeed so scanty that they are to a great extent a hinderance rather than a help in an ethnographic study. Among the Oregon tribes, especially along the coast, there was a system of 'gift giving' in which baskets were passed from one group to another, thus, even baskets made by the California Indians found their way northward along the Oregon coast. This custom was often ignored or left unnoticed by many of the early writers; thus a tribe was often accredited with a knowledge of various basketry techniques which did not exist in their culture.

The sources for the study of Oregon basketry are of four types; one, the general works on American Indian

basketry, two, the anthropological monographs and texts, three, historical records, and fourth, actual specimens of basketry available in the museum collections.

The most valuable of the general sources consist of Mason's Aboriginal American Basketry: studies in a textile art without machinery, (1904), which serves as a point of reference for all studies of basketry techniques of the American Indian, and Gene Weltfish's Prehistoric North American Basketry Techniques and Modern Distribution, (1930). Also within this class falls G.W. James' Indian Basketry, (1902), which could be called a layman's Mason and describes basketry as a collectors item.

The anthropological monographs and texts fall into two classes, one dealing with historic and ethnic groups, the other with the prehistoric cultures. These ethnographic studies vary from notes to complete monographs. The more useful of the major ethnic studies are Leslie Spier's Klamath Ethnography, (1930), Isabel Kelly's Ethnography of the Surprise Valley Paiute, (1932), and H.G. Barnett's Culture Element Distribution, VII, Oregon Coast, (1937). Lila O'Neale, in her monograph Yurok-Karok Basket Weavers, (1932), deals with basketry from the point of view of the weaver. Texts such as Melville Jacobs' Santiam Kalapuya Ethnologic and Myth Texts, (1945), and Coos Narrative and Ethnologic Texts, (1939), are often of value as they give clues as to the

presence or absence of basketry and its function both within the historic period and the period in the past as indicated by mythology, although they lack any details of typology. The single source of prehistoric basketry techniques for Oregon is L.S.Cressman's Archeological Researches in the Northern Great Basin, (1942).

Of the historical materials the journals of Lewis and Clark and the Wilkes Expedition are the most valuable since the later reports of travelers, missionaries, and settlers are extremely fragmentary and unreliable. This, in all probability, is due to the circumstances under which these reports were written. Both Lewis and Clark and Wilkes were sent primarily to gather information on the country and its inhabitants and thus were more careful and scientific in their reports.

In analysing Oregon basketry I propose the following method of study. First the ethnographic literature on the tribes of Oregon should be searched for information on basketry, the form, use (or function), techniques of construction, methods of decoration, and materials used by each tribe or ethnic group. As has been noted previously the material available is very limited; so, secondly, much of the information will, of necessity, have to be obtained through observation and analysis of the specimens of baskets available in the Museum of Natural History at the University



of Oregon.

With each basket selected for study, the following information will be noted. First, the catalog of museum specimens will be consulted for any information as to what ethnic group the basket has been attributed, the classification which has been given it, and the catalog number assigned to the specimen. Second, the basket will be analysed, using the system of classification which I will set up in the succeeding pages.

By this method of study I hope to be able to separate the basketry of Oregon into ethnically determined groups. The major part of this thesis will be concerned therefore with the types of basketry to be found in Oregon, and the geographic, as well as the historic, distribution of these types.

In the final section of the paper I will discuss briefly the problems of relationship; the relationship of basketry types to linguistic groups, and the relationship of Oregon basketry with that of the Basin Plateau.

## CHAPTER I

### CLASSIFICATION SYSTEM FOR BASKETRY

In any study of basketry one must set up a system of classification to serve as the basis for analysis and discussion of the types in the area involved. Therefore, before turning to a detailed analysis of Oregon basketry typology I wish to set up a general classification system based on (1) technique of construction, (2) technique of decoration, and (3) material used.

Basketry may be divided into two main classes on the basis of construction techniques; woven and coiled. Woven basketry is comprised of vertical warp elements bound together by horizontal wefts which intertwine with the warps or cross over each other between warps. Coiled basketry is comprised of a foundation which is arranged in a spiral and each successive coil is sewed to the previous coil by an over and over stitching of the flexible element (or splint).<sup>1</sup>

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<sup>1</sup>In connection with this problem Dr. H.G. Barnett has suggested that the term 'coiled basketry' might well be supplanted by the term 'sewn basketry' as sewing applies to the method of joining not only a continuous circuit (coil) but also a series of circuits, such as is found on Thompson River coiled ware. By using the terms woven and sewn the method of manipulation is described for the active elements rather than the type of foundation used, as is done by the term coiled.

### Woven Basketry

Woven basketry is composed of plaiting, wickerwork and twining. Of these three, twining is by far the most often utilized.

Plaiting. In plaiting (or checkerwork as it is often called) the warp and weft have the same width, thickness, and flexibility and are intertwined to form squares. (fig. 1) A variation of plaiting in which the warps and wefts cross over two elements instead of one is usually referred to as twilled plaiting.

Wickerwork. The basic difference between plaiting and wickerwork is that in the latter the warp is more rigid than the weft, and often the weft is more slender than the warp. (fig. 2)

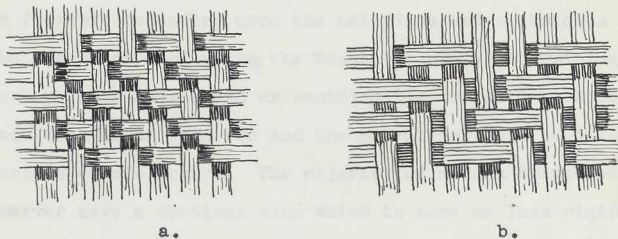


Fig. 1 Plaiting

a. Checkerwork      b. Twillwork

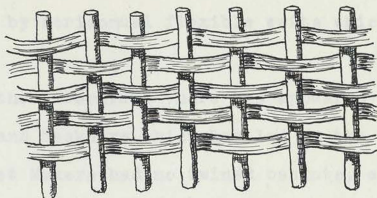


Fig. 2 Wickerwork

Some authors, namely Weltfish<sup>1</sup>, objects to the inclusion of plaiting, wickerwork, and twining in the same group on the principle that in plaiting, and often in wickerwork, the warps are indistinguishable from the wefts. Yet, since all three employ an interweaving of warps and wefts it seems logical that they may all be included under the term 'woven' without reference to the relative size or activity of either element.

Twining. Twined basketry may be rigid, semiflexible, or flexible depending upon the materials and techniques used. The method of supporting the basket is not a determining factor since both rigid or semiflexible and soft baskets are made both in an inverted and the normal vertical position by various ethnic groups. The majority of modern twined baskets however have a vertical warp which is more or less rigid

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<sup>1</sup>Weltfish, Gene, "Prehistoric North American Basketry Techniques and Modern Distribution", American Anthropologist, n.s. XXXII (1930) p. 454.

held together by horizontal flexible wefts which cross between the warps.

In the literature there has appeared a distinction between bags and basketry which has led to the conclusion that the Basket Makers had no twined baskets, although, they did have soft twined bags. This inference is based on the assumption that twined baskets are rigid, or at best only semiflexible, whereas bags are very soft and flexible. It seems to me that a classification based on materials and texture of weave is not as valid as a classification based on the form the material and weave takes.<sup>1</sup> A basket is an integrated whole with a flat or rounded bottom and generally vertical sides. A bag or wallet is constructed either on a flat plane, then folded and the sides sewn, or the warps are folded at the midpoint and the weaving process proceeds as it does on the wall of a basket. Thus, using the above classification of bags and baskets, the soft twined bags reported for the Basket Makers are soft twined baskets.

The relation of the weft elements to one another and to the warp determines the different structural results. Along with this structural description of twining should be

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<sup>1</sup>This view is also held by L.S.Cressman, cf. Archeological Researches in the Northern Great Basin (Carnegie Institution of Washington D.C., Publication 538, 1942) p.33.

included the direction of the work in relation to the weaver, clockwise or counter-clockwise; whether the work surface is convex or concave; and, the pitch of the stitch, that is, the direction in which the wefts are twisted. The convex work side is the outer surface of the basket toward the worker (fig. 3), and the concave work surface is the inner surface at the far side of the basket (fig. 4). If the wefts

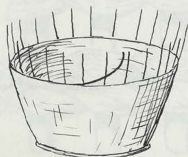


Fig. 3 Counter clockwise spiral worked from the convex surface.

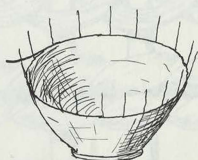


Fig. 4 Counter clockwise spiral worked from the concave surface.

are twisted toward the worker the result is downward pitch of the stitch on the work surface, whereas, if the wefts are twisted away from the worker an upward pitch of the stitch occurs on the work surface. Since the direction of work in North America is usually from the left to the right of the worker, the pitch of the stitch is usually referred to as down to the left or down to the right.

Twined weaving may be either functional or decorative (non-functional) and, as these non-functional techniques will be fully described in the section which deals with the techniques

of basket decoration, I wish at this point to discuss only the functional techniques of twining.

The main varieties of twining are as follows:

1. Simple twined weaving. There are two wefts which cross each other between single warps in a half twist. (figs. 5 and 6)

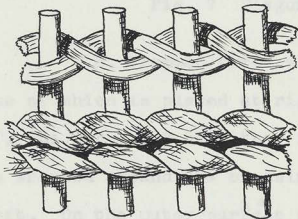


Fig. 5 Simple twining  
down to the right.

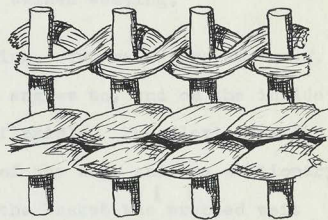


Fig. 6 Simple twining  
down to the left.

2. Diagonal (twill) twined weaving. Two wefts pass over two or more warp elements at each half twist. Warps must be odd in number as in the next row the same pair of warps are not included in the half twist. (fig. 7) Although this technique has become standardized in the literature as diagonal twined weaving, it is really only due to an illusion created by crossing two warps instead of one. Thus it might well be classified as a variety of simple twining which places two instead of one warp between each half-twist of the wefts.

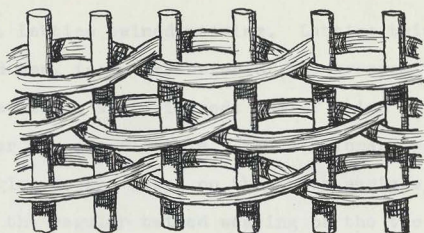


Fig. 7 Diagonal twined weaving.

3. Wrapped twine weaving. Two wefts are employed, one of which is placed at right angles to, and on the inside of, the warps and the other is flexible. The flexible weft is wrapped around the crossing of the warp and the stationary weft. On the outer surface of the basket the wrapped weft is diagonal, while on the inner surface it is vertical, lying between the two adjacent warps. (fig. 8) This functional technique is almost identical with the decorative technique of wrapped twine overlay.

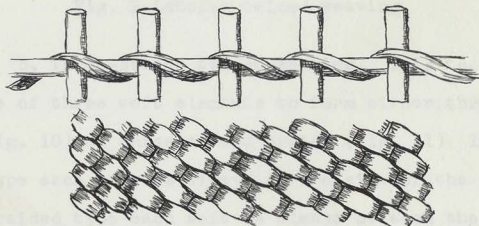


Fig. 8 Wrapped twine weaving.



4. Lattice twined weaving. Lattice twined weaving, often called tee, is an extension of the wrapped twining technique. Three wefts are utilized; one of which is stationary and the other two are flexible. The stationary weft is laid at right angles to the warps on the outer surface and is held in place by the regular twined weaving of the two flexible weft elements. This technique is indistinguishable from the plain twining on the inner surface of the basket but the outer surface has a decided ridged appearance. (fig. 9)

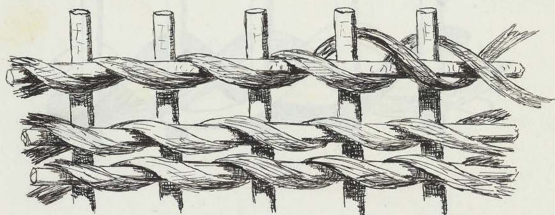


Fig. 9 Lattice twined weaving

5. Three-strand twined weaving. This technique makes use of three weft elements to form either three-strand twine (fig. 10) or three strand braid. (fig. 11) In the twined type each weft is always on one side of the other two. In the braided type each weft is always between the other two. Both look like plain twine on the inside of the basket.

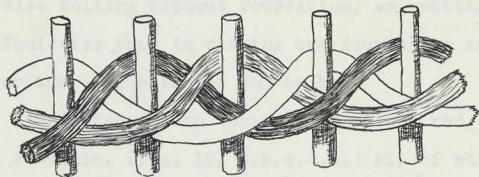


Fig. 10 Three strand twine.

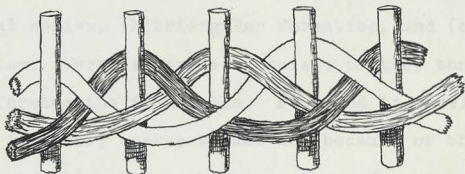


Fig. 11 Three strand braid.

### Coiled Basketry

As was previously stated, coiled basketry is produced by an over and over sewing of the coil foundation arranged in a spiral. Classification of coiled basketry is made on the type of foundation used, the method of stitching employed, the direction of work, and the work surface.

Foundation. Foundations used may be divided into

two main categories; (1) single, and (2) multiple foundation. There is also coiling without foundation, or netting. Mason, however, indicates that in netting the foundation was removed after the completion of the basket.<sup>1</sup>

Single foundation consists of single rod, bundle, or rod in a bundle, (fig. 12, a,b,c,d,e,) all of which are treated as a single unit. They may be sewn by interlocking stitches or non-interlocking stitches, the latter may or may not split the rod.

Multiple foundation consists of three varieties; (a) vertical series, (b)triangular formation, and (c) multiple variation. Vertical series consists of two, three, or four rods forming the foundation. Four rod is rarely used as it results in a very coarse basket and because of the difficulty of controlling the technique. The rods which form the foundation are arranged vertically and the splint passes over the coil foundation and incorporates the top rod of the preceding coil. The triangular formation of the coil results in using either three or five elements in a triangular position. These elements are held in place by the splint passing behind the foundation coil and coming up under and incorporating or splitting the top rod of the previous coil.(fig.13,a,b,c,d,e,f.)

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<sup>1</sup>Mason, O.T., "Aboriginal American Basketry; studies in a textile art without machinery", U.S.Museum, annual report, (1904) p. 248.

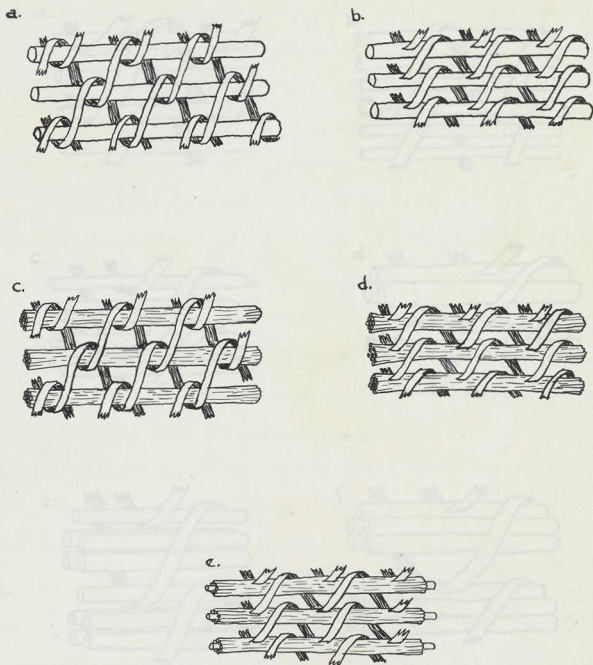


Fig. 12 Types of Single Foundation. (a) Single rod interlocking stitches; (b) Single rod, rod split; (c) Bundle with interlocking stitches; (d) Bundle with non-interlocking stitches, bundle split; and (e) Rod in bundle, bundle split.

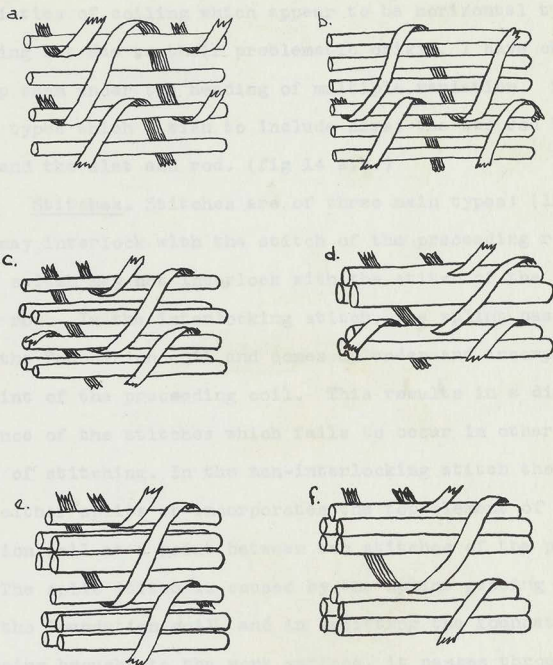


Fig. 13 Multiple Foundation Types. (a) Two rod vertical, rod incorporated; (b) Three rod vertical, rod incorporated; (c) Three rod triangle, top rod incorporated; (d) Three rod triangle, top rod split; (e) Five rod triangle, top rod incorporated; (f) Five rod triangle, top rod split.

Aside from the vertical and triangular series there are varieties of coiling which appear to be horizontal types of coiling but due to their problematic origin, I have chosen to group them under the heading of multiple variation. There are two types which I wish to include here; the two rod horizontal and the slat and rod. (fig 14 a,b.)

Stitches. Stitches are of three main types; (1) the stitch may interlock with the stitch of the preceding row, (2) the stitch may not interlock with the stitch of the preceding row. In the interlocking stitch, the splint passes around the foundation coil and comes up under and incorporates the splint of the preceding coil. This results in a diagonal appearance of the stitches which fails to occur in other methods of stitching. In the non-interlocking stitch the splint either splits or incorporates the top element of the foundation coil at a point between two stitches of the previous coil. The split stitch is caused by the splint passing around the foundation coil, and in splitting the foundation, while being brought to the work surface, it passes through the splint of the previous coil either on the work surface, the non-work surface, or both. (fig. 15. a,b,c,d,e.)

To describe coiled basketry completely the direction in which the work proceeds and the surface from which the basket is worked should be noted. Essentially this is the

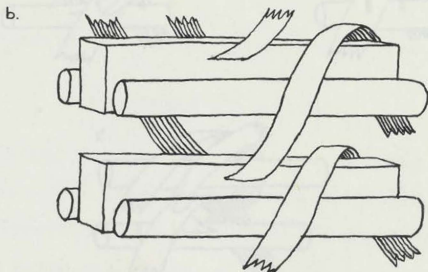
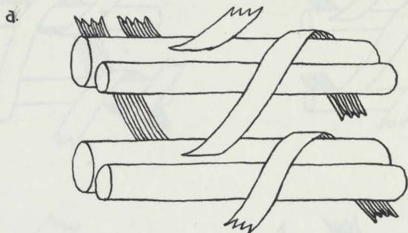


Fig. 14 Multiple variation.  
 (a) Two rod horizontal, larger  
 rod split.  
 (b) Slat and two rod, slat split.

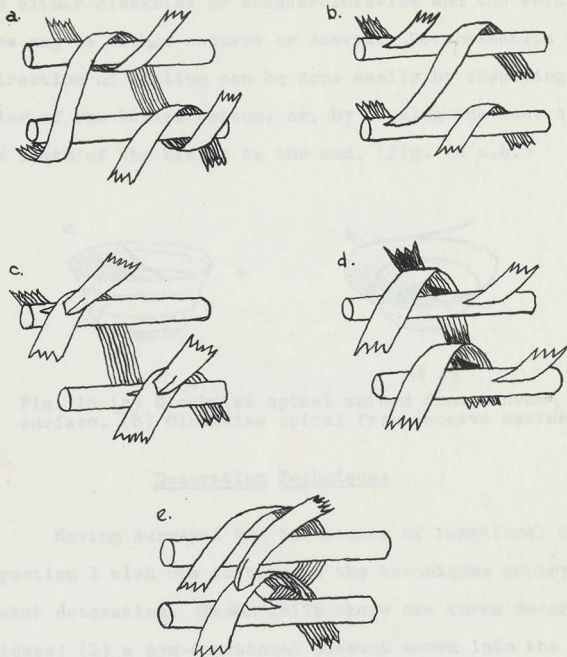


Fig. 15 Major methods of stitching coiled basketry. (a) Interlocking stitch; (b) Non-interlocking stitch; (c) Split stitch on work surface; (d) Split stitch on non-work surface; (e) Split stitch on both work and non-work surface.



same in principle as it is in twining. Direction of work may be either clockwise or counterclockwise and the work surface may be either concave or convex. Determination of the direction of coiling can be done easily by observing the interior of the basket bottom, or, by tracing the last coil at the mouth of the basket to the end. (fig. 16 a,b.)



Fig. 16 (a) Clockwise spiral worked from convex surface. (b) Clockwise spiral from concave surface.

### Decoration Techniques

Having surveyed the techniques of functional basket construction I wish now to turn to the techniques employed in basket decoration. Essentially there are three decorative techniques; (1) a non-functional element woven into the basket, (2) a design applied to the surface, or (3) a combination of both. These techniques are supplemented by the use of colored wefts or splints in functional construction for decoration.

Those decorative elements which are woven into

twined basketry are false embroidery, overlay twining and wrapped twining.

1. False embroidery. This technique is applied to simple twined baskets and consists of wrapping the outside weft with colored material (usually grass) during the process of weaving. (fig. 17)

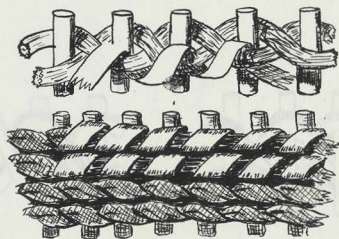


Fig. 17 False embroidery.

2. Overlay twining. This technique consists of laying one or two additional strands over the functional wefts. When twining without a twist or with a full twist occurs the decoration appears only on the outer surface of the basket. Overlay with a half twist of the wefts has the result that the decoration is exposed on both sides of the basket. If the overlay strand is placed only over one weft an alternating pattern results, (fig. 18 a,b.) whereas, when placed over both wefts a solid all over decoration results. (fig. 18 c,d.)

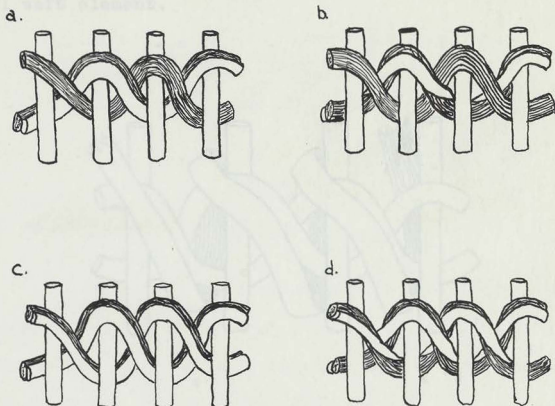


Fig. 18 Overlay twining. (a) Overlay one strand twining, (b) Overlay half twist one strand twining, (c) Overlay two strand twining, (d) Overlay two strand half twist twining.

3. Wrapped twine overlay. This technique differs from the functional wrapped twining in that it is a result of wrapping a decorative strand over and over simple twining. (fig. 19) On the outside of the basket the wrapping is diagonal whereas on the inside it is horizontal. At first glance the functional and non-functional techniques appear the same except for the ridged appearance on the inner surface

of functional wrapped twining which is caused by the horizontal weft element.

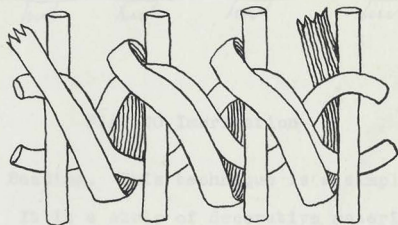


Fig. 19 Wrapped twine overlay

The two main non-functional techniques which are added to coiled ware at the time of manufacture are imbrication and beading.

1. Imbrication. This technique resembles the overlapping rows of tile or shingles, hence the name. To start, the end of the material used for the decoration is bent under and bound down by the structural stitch, the strip is then bent back on itself, then bound down by the next structural stitch; pulled forward to the desired length, then bent forward again. The process is continued till the area to be decorated is covered. (fig. 20)

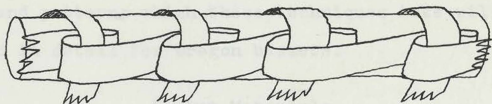


Fig. 20 Imbrication

2. Beading. This technique is a simplified form of imbrication. It is a strip of decorative material laid along the foundation coil and held in place by the over and over stitching of the splint. (fig. 21)

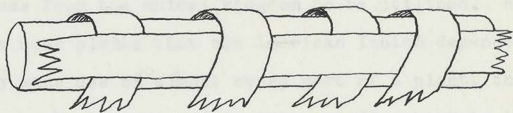


Fig. 21 Beading

Designs may also be applied to basketry by painting, however this is fairly rare. Another form of decoration is the addition of beads, feathers, and other materials sewed or fastened by some other means to the basket. These and the

other techniques for decorating both twined and coiled baskets are applied to basketry in various forms. Actual designs and patterns which these techniques take will be discussed in detail for Oregon baskets.

### Basket Materials

Since the type of material used in the manufacture of basketry is related to form (or shape) and function (or use), it is important in any method of classification to note the material employed.

American Indians have, as Mason puts it, "ransacked the three kingdoms of nature - mineral, animal, and vegetable",<sup>1</sup> for the materials with which to make their baskets. Minerals are used as dyes and paints or cut as beads and pendants. Leather, feathers, shell and porcupine quills are the important items from the animal kingdom to be utilized. However, it is upon plants that the American Indian depended most. They made use of almost every part of a plant, the root, stem, bark, leaves, and in waterproofing baskets they even used the resin. Since a complete list of the plants used would be beyond the scope of this paper I will confine myself to the more common forms which were used by the Oregon Indians and their neighbors. This plant material may be

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<sup>1</sup>Mason, op.cit., p. 197.

divided into two classes, those employed for construction, and, those employed for decorative dyes.

The most common and widely used plant for basketry among the groups west of the Cascades, is Corylus californica, hazel. It is particularly useful in the manufacture of the coarser forms of baskets. Among the eastern Indians Salix, willow, was used much as the west coast tribes employed hazel.

Among the Klamath and Modoc the principle material is Scirpus lacustris, or tule. The surface of the stem is cut into narrow strips which are twisted into long cords and used in the manufacture of fine twined baskets. In coarser baskets the stems are used whole or split and used without twisting. The fine roots of the tule are also used. When dried they are maroon in color and are often used to make the design pattern in the fine twine baskets. The Klamaths also make use of twisted strands of Typha latafolia, cattail, leaves in much the same manner as tule. Whereas natural tule results in green and brown shades the cattail produces an ashy white basket.

Xerophyllum tenax, squaw grass, is the material most used for wrapped twine overlay. Occasionally it is dyed, but in its natural state it is a yellowish white. Xerophyllum tenax is limited in its distribution to the high altitudes of the Cascades and the high areas of the coastal

range in Curry county. Among the decorative materials employed by the Klamath and Modoc Indians was Phragmites phragmites, or reed. The shiny surface of the stem, like cattail, was used in making the white patterns which appear on twisted tule baskets. Another decorative material used by the coastal groups is Adiantum pedatum, maidenhair fern, the slender, shiny, dark brown stems of which are split before use.

Aside from the leaves and stems, the roots of many plants were used. The split roots as well as the bark of the Thuja plicata, giant cedar, and Picea sitchensis, spruce, are widely employed by the coast tribes in the manufacture of storage baskets. Several species of pine are also valued for their roots. These roots are prepared by steaming and splitting while warm. They are made into coarse V-shaped carrying baskets by the tribes along the California-Oregon border. The roots of Alnus rubra, the red alder, is used primarily as the weft element to give strength to the basket bottoms of many southern Oregon and northern California tribes.

The second class of plant materials are those which are used as dyes. The more common types included Alnus rhombifolia, white alder, which produced a orange or red-brown dye when the bark is infused with water; Berberis nervosa, Oregon grape, which produces a yellow dye when



the twigs and bark are steeped; and Evernia vulpina, wolf moss, a yellow tree lichen also produces a yellow dye which is extracted by boiling. The Modoc and Shasta use this dye only for porcupine quills. The seed shells of the Nymphozanthus polysepalus, water lily, were employed by the Klamath to make a black dye.

Even Indian tribes in the following order, based on geographic location; the tribes at the lower end of the Columbia and the Willamette Valley, the tribes eastward along the coast, the Liberty-Modoc, and northward through the tribes in eastern Oregon. To show more clearly the position of these tribal groups, they have been indicated on the accompanying map.

Since the basketry, at least interesting about basketry, of the archaeological horizon is limited to eastern Oregon, the following discussion of Oregon typology is that of the historic period, approximately 1800 to 1880.

#### Lower Columbia Tribes

The Clatsop, occupying the north bank of the mouth of the Columbia, and the Tschilcut, occupying both the north and south banks of the Columbia east of the Clatsop to Light Island, form a single ethnic group. Biologically the Tschilcut belong with the Upper Chinook; ethnically they belong with the Lower Chinook; the Clatsop, the Chinook, and the Shoalwater.

May, Verne F., Lower Columbia Ethnographic Notes (University of Washington Publications in Anthropology, VII, no. 2, 1935), pp. 37-38.

## CHAPTER II

### OREGON TYPOLOGY

For convenience, in the following discussion, I will consider the Oregon Indian tribes in the following order, based on geographic location; the tribes at the lower end of the Columbia and the Willamette Valley, the tribes southward along the coast, the Klamath-Modoc, and northward through the tribes in eastern Oregon. To show more clearly the position of these tribal groups, they have been indicated on the accompanying map.

Since the basketry, at least information about basketry, of the archeological horizon is limited to eastern Oregon, the following discussion of Oregon typology is that of the historic period, approximately 1800 to 1850.

#### Lower Columbia Tribes

The Clatsop, occupying the south bank at the mouth of the Columbia, and the Kathlamet, occupying both the north and south banks of the Columbia east of the Clatsop to Puget Island, form a single ethnic group. Dialectically the Kathlamet belong with the Upper Chinook; ethnically they belong with the Lower Chinook; the Clatsop, the Chinook, and the Shoalwater.<sup>1</sup>

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<sup>1</sup>Ray, Verne, F., Lower Chinook Ethnographic Notes (University of Washington Publications in Anthropology, VII, no. 2, 1938), pp. 37-38.



Lewis and Clark were greatly impressed by the Clatsop baskets which they describe as follows:

their baskets are formed of cedar bark and beargrass so closely interwoven with the fingers that they are watertight without the aid of gum or rosin; some of these are highly ornamented with strains of beargrass which they dye of several colours and interweave in a great variety of figures; this serves them the double purpose of holding their water or wearing on their heads; and are of different capacities from that of the smallest cup to five or six gallons; they are generally of a conic form or rather the segment of a cone which the smaller end forms the base or bottom of the basket. these they make very expeditiously and dispose off for a near trifle. it is for the construction of these baskets that the beargrass becomes an article of traffic among the natives this grows on their high mountains near the snowy region; the blade is about  $\frac{3}{8}$  of an inch wide and 2 feet long, smooth pliant and strong; the young blades which are white from not being exposed to the sun or air, are those most commonly employed, particularly in their neatest work.<sup>1</sup>

It appears from the evidence available that the use of cedar bark in the manufacture of water-tight baskets declined as spruce root became more popular. Ray<sup>2</sup> failed to obtain any baskets of waterproof construction made of cedar bark, but those using spruce root were plentiful.

Aside from the finely twined baskets the Clatsop and the Kathlamet also made openwork baskets of spruce roots

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<sup>1</sup>Thwaites, Ruben G., (ed.) Original Journals of the Lewis and Clark Expedition (7 vols., atlas, New York, 1905) III, p. 353.

<sup>2</sup>Ray, op.cit., pp. 132-133.

which were used as clam baskets and for storing dried salmon.

An open twined basket (L2-106), which served as a clam basket, was made of split spruce root. The base is composed of 27 warps held by 8 rows of twining, 7mm. apart. The wefts become the warps at the ends of the basket. A design is executed on the front and back of the basket by overlaying natural Xerophyllum tenax on the warps in seven columns on each side. Each column consists of three strands separated by two undecorated warp strands. At the border four rows of the grass are beaded in. The braided border is formed by plaiting the warp strands upward for 2 cm. then horizontally for a double row.

Twilled (diagonal) plaiting is utilized in a storage basket (1-2491) which may be of Clatsop origin. Split spruce splints 7mm. wide are used as the warp and weft elements. The bottom was woven first and the splints bent upward to become the warps of the sides. The weft splints pass over two and under two warps. The rim is finished by binding it down with cordage. The scalloped decoration on the rim is made of twined cedar bark. Two strands are used, the middle is looped under the rim and both pairs of ends are twisted into a twine. One twine is put through the other and then doubled down under the rim to repeat the process sixteen times around the rim. The basket is trapizoidal in shape and 38.1 cm. in height. Mason depicts similar baskets

for the Nutka and Clallam.<sup>1</sup>

Rushes were used to make the storage baskets with lids in which berries were stored. Occassionally they also made checkerwork baskets from rushes.

Willow (Salix) may also have been utilized for the manufacture of large storage baskets. Boas' Kathlamet Texts, in the myth of AQIASXĒ'NAS XĒ'NA records the following: "Now they brought her more willow bark and she made a large basket".<sup>2</sup>

Swan reported that the Lower Chinook occassionally made hats of the white grass.<sup>3</sup> The technique implied here was in all likelihood functional wrapped twining.

Two baskets (L2-343, L2-347), from the Patterson Loan collection, are examples of Clatsop wrapped twining. There is a possibility that these wrapped twine baskets are trade ware passed southward along the coast, although they are not part of the Makah tradition as they lack the checkerwork base. However, other Chinookan groups, including the Wasco, used wrapped twining as a decorative technique. One

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<sup>1</sup>Mason, op.cit., p.432-433.

<sup>2</sup>Boas, Franz, Kathlamet Texts (Smithsonian Institution Publications of the Bureau of American Ethnology, Bulletin 26, 1901), p. 17.

<sup>3</sup>Swan, J.G., The Northwest Coast; or Three Years' Residence in Washington Territory (New York, 1857), p. 163.

basket is an elongated cup, 9.5cm. high and 12.7cm. wide at the mouth, and the other is a shallow bowl-like basket, 8.3cm. high and 20.3cm. wide at the mouth. The design on the former was executed in natural and yellow and black dyed Xerophyllum tenax. The pattern on the bottom utilized blue wool. Around the border a black dog design was worked in a yellow background. The dogs faced the right. The pitch of the wrapping was also down to the right. The shallow bowl-like basket made use of natural and brownish-red dyed Xerophyllum tenax which alternates in a horizontal band design. Small triangles are worked in the dark bands with the light element. Aside from the wrapped twining a row of three strand twining occurs at the joint of the base and sides. The pitch of the twining is down to the left.

Spruce root was prepared by steaming before splitting into strips. When the weaver was ready to use these strips she soaked them in water to make them pliable. Cedar bark was scraped, then dried, before splitting into strips. For dyes they employed the root of Berberis nervosa, Oregon grape, Alnus rhombifolia, white alder, and mud. Swan noted that the "black is produced by burying the willow bark or grass in the black mud of the Bay for a few weeks; the red by the bark of the black alder; and the yellow by a mixture of nettle roots with some shrub they procure from the North-

ern Indians".<sup>1</sup>

From Swan also comes an indication of what design elements were employed by the Lower Chinook. The twined spruce root baskets were "woven with figures of horses, dogs, and birds depicted on them by means of different colored grasses".<sup>2</sup> Lewis stated that the designs on the Chinook twined baskets were usually vertically arranged.<sup>3</sup> However, the designs on the majority of the baskets I have examined were horizontally arranged.

Among the Upper Chinook tribes, about which we know very little are the Skilloot, Multnoma, Willamette Falls (Clowewalla), and Clackamas.

The Skilloot spoke the same dialect of Chinook as did the Kathlamet, and evidently acted as traders between the upper and lower Columbia river tribes. Lewis and Clark mention that they had "small neat bags of rushes"<sup>4</sup> which they used to carry tobacco.

The Multnoma, Willamette Falls, and Clackamas linguistically fall into the same group, termed Clackamas

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<sup>1</sup>Ibid., pp. 162-163.

<sup>2</sup>Ibid., p. 163.

<sup>3</sup>Lewis, Albert B., Tribes of the Columbia Valley and the Coast of Oregon and Washington (Memoirs, American Anthropological Association, I, Part 2, 1906), p. 175.

<sup>4</sup>Thwaites, op.cit., p. 293.



Chinnok. These groups were early reduced in numbers and died out before any ethnographic work was done among them.

The Cascade Indians along with the Hood River tribe constitute a transitional dialect between the Clackamas and the Wasco, the latter being the furtherest east of the Oregon Chinook groups. The Cascade Indians seemed to have depended to a great extent upon hunting. They had only scattered settlements along the Columbia as they were drawn inland by hunting and gathering. After the epidemic of 1829, during which they were reduced to a single band, they came to live at the Cascades. About the Hood River Indians Lewis and Clark report that they had food bowls made of cedar bark and grass.

Possibly the reason for the scarcity of settlements by the Cascade and Hood River Indians along the south bank of the Columbia was due to fear of Snake raids.<sup>1</sup> Since the inhabitants of the area were scattered and pushed north and west by the incroaching Northern Shoshone or Palute, information, of an ethnographic nature is lacking.

The Wasco, although they linguistically belong with the rest of the Columbia Chinooks, will be included with the tribes of eastern Oregon, as their basketry falls

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<sup>1</sup>Teit, James H., The Middle Columbia Salish (University of Washington Publications in Anthropology, II, no. 4, 1928), p. 107.

largely within the type typical for the Basin Plateau area. The Wasco might well be considered the focal point for the Oregon tribes as they engaged both in the east-west trade along the Columbia and the north-south trade of eastern Oregon.

#### Willamette Valley Tribes

The tribes who inhabited the Willamette Valley are known collectively as the Kalapuya Nation. They have been separated into the following tribes: Tualati, Yamhill, Lucki-mute, Mary's River, Long Tom Creek, Kalapuya, Yoncalla, Santiam, and Pudding River. Although many of the early sources indicate that the Kalapuyan tribes were once numerous and powerful, epidemics had rendered the Willamette Valley almost uninhabited by the time the white settlers arrived. The information on the Kalapuyan groups is limited largely to the unpublished material gathered by Gatschet in 1877, the bulk of which was linguistic material, and the 'text' material gathered by Jacobs.

In Jacob's Santiam Kalapuya Ethnologic Texts,<sup>1</sup> he records the following information:

The soft bag ( a pack-sack basket) that they

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<sup>1</sup>Jacobs, Melville, Kalapuya Texts, Santiam Kalapuya Ethnologic Texts (University of Washington Publications in Anthropology, XI, No.1, 1945)

had was always for their packing (carrying things on their backs). Whatever they picked ( e.g. acorns, hazelnuts, camas, tarweed seeds, pussy ears) they put into their soft-bag. When they dug camas they put them into their soft bag. (1) When they gathered acorns they put them into their soft-bag too. For everything that they did they always carried along with them their soft bag. The soft-bag was the woman's thing for packing (for general carrying). That is the way they always did so it is said. (2) And another one (basket) in addition they named their storage-basket (of hard splints). Still another one ( was made) like the storage-basket indeed ( i.e. hard, shaped like a shallow pan, tightly knit; Eustace Howard said it is more like the soft bag in technique of weaving), (with) it they prepared tarweed seeds. I do not quite well know what its name (was). (3) I do not know how they did it ( wove it) when they manufactured them. But I myself only saw (some old ones used) when they prepared tarweed seeds (with them). They had them (they were made) rather like storage baskets indeed (like the soft bags, according to Howard).<sup>1</sup>

Unfortunately information on the techniques employed is lacking since the informant used by Jacobs was a man. However, in all likelihood the soft carrying basket was twined whereas the storage basket may possibly have been coiled but probably was a rigid twined basket. The single basket (1-2490) in the Oregon Museum of Natural History which is attributed to the Kalapuya, is evidently a small storage basket. It is an undecorated coiled basket made of willow and according to the collector's note was made 'by Old Lucy,

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<sup>1</sup>Ibid., pp. 37-38.

the last of her tribe'. The basket was not so carefully constructed<sup>1</sup> as indicated by the inconsistency of stitching. The foundation is basically three rod vertical, top rod incorporated, occasionally however, only two rods are used. The stitch is split both on the work and non-work surface and sometimes is not split at all. The rim is finished by coiling over a single rod. The basket is 8.9cm. high and 10.2cm. in diameter at the mouth.

The Tualitins, according to the texts recorded by Gatschet and Frachtenberg, also had a basket made of rushes which they used to catch trout.<sup>2</sup>

The Kalapuya, from the limited information available evidently used both coiled and twined technique, employing willow, and rushes to make their baskets. They in all probabilities also made use of cedar bark and ash bark.

The Clatskanie were the only Athapascan tribe in northwestern Oregon. Although mention of their existence by Lewis and Clark as well as other early travelers gives a clue as to their habitat, their hostility to the white settlers and early extinction (only eight survivors in

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<sup>1</sup>The careless construction of the basket may be due to the age of the basket-maker, or it may be that coiling was a technique introduced by some Sahaptin group, or individual, and therefore not well made as it was not a native trait.

<sup>2</sup>Jacobs, op.cit., p.188.

1857) by the epidemics of disease has precluded any ethnographic account of them. They supposedly carried on trade with the Tillamook and were hunters and traders, unlike the Chinook fishermen.

### Oregon Coastal Tribes

For information, other than actual specimens available in the Museum, about the basketry made by the coastal tribes in Oregon I have relied heavily on H.G. Barnett's trait list for the Oregon Coast.<sup>1</sup>

The Tillamook, who along with the Siletz comprise the Salish speaking population of the Oregon coast, occupied an area from the southern border of the Clatsop to a few miles north of the Siletz River.

The techniques employed by the Tillamook, were simple and three strand twining in both close and open twining and twilled plaiting.

The main basketmaking materials were hazel and conifer roots. For decoration Xerophyllum tenax was employed either in its natural state or dyed red (Hemlock)<sup>2</sup> and

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<sup>1</sup>Barnett, Homer G., Culture Element Distributions; VII, Oregon Coast (University of California, Anthropological Records, I, no. 3, 1937)

<sup>2</sup>In all probabilities what the informant meant by hemlock dye was an undetermined species of moss which was found on the Hemlock, as Hemlock itself was utilized by the Tlingit to produce a green dye.

black (mud). The shiny black stems of Adiatum pedatum, maidenhair fern, are also used for decoration.

They made coarse burden baskets, carrying baskets, storage baskets, water-tight baskets, and a few flat plate-like baskets. According to the information gathered by Barnett they also had twined tule sack-like baskets and a "wedge shaped, tight weave, flexible carrying basket".<sup>1</sup>

A carrying basket, (1-895) equipped with carrying strap is a good example of Tillamook technique in open twining. The base is comprised of 24 warps which are also the warps of the front and the back of the basket. These warps are held together by eleven rows of twining. The weft elements of the bottom become the warp of the sides of the basket. The rows of twining are 5mm. apart. The pitch of the stitch is down to the right. At the border two rows of Xerophyllum tenax are plaited in. The border is made by braiding the warp elements together. They are braided vertically for 1cm. then are topped by two rows of horizontal braid.

The Tillamook also made twilled carrying baskets (L2-116). The warps were laid out parallel to each other and held at their midpoints by a single row of simple twining. The pitch of the stitch is down to the left. Twilling then proceeds till the base is completed. At the joint of the base

<sup>1</sup>Barnett, op.cit., p.172.

there are four rows of simple twining to give the basket firmness. The warps of the sides are overlaid with Xerophyllum tenax. For the first sixteen rows Adiantum pedatum forms the weft strands, whereas the split root weft strands are used for the rest of the basket. One row of simple twining, down to the left, occurs at the mid-point on the sides of the basket. The border decoration is made by grass overlay on the last two weft strands and wrapped into place with Adiantum strands. The basket is finished with the double row of braids as the carrying basket previously described. The double row braided border is characteristic of Tillamook carrying baskets.

Another Tillamook basket, in all likelihood a storage basket, (L2-108) is an example of close twining. It is 17.7 cm. high and 20.3 cm. wide at the mouth, and is constructed with split conifer root. The base is made in simple and diagonal twining; at the juncture of the sides and the base there is one row of three strand twining, a device which serves to strengthen the basket. An alternating pattern is accomplished on the body of the basket by placing natural Xerophyllum tenax over one weft and twining with a full twist. Every two rows the weft covered with overlay is changed. At the border the design is made by a solid row of Xerophyllum tenax followed by a row of split root, then a solid background of natural grass on which a dog design is made by the root wefts. The dogs face the left in contrast

to the Clatsop basket referred to earlier where the dog faced the right. The rim is finished by braid.

Baskets similar to the one just described were also made water-tight with the addition of pitch.

A bowl-shaped storage basket (L2-337) is made of hazel. The basket is started by laying eight warps in two groups of four warp stems each, at right angles to each other. The warps are held in place by two rows of wrapping by the weft elements and then radiate out, in pairs. Extra warps are added in pairs as they are needed. The twining on the base is quite frequently diagonal. Nine centimeters from the center of the basket is the row of three strand twining so characteristic of the coast baskets. The warps are usually of two, and often three hazel twigs, a device which adds to the rigidity of the basket. As the function of the basket was strictly utilitarian, decoration consists of two rows of twining near the rim with weft strands which had been dyed in mud. At the border another row of three-strand twining occurs. The border was made by plaiting the warp strands together. The basket is 19cm. in height and 32 cm. in width at the mouth.

The designs on Tillamook baskets were normally arranged in bands. An alternating pattern which results from using *Xerophyllum* overlay only on one weft is widely used. The conventionalized dog seems to be the only attempt



to copy the designs of their Chinook neighbors, the Clatsop.

The Siletz, the Salish speaking neighbors of the Tillamook groups, occupied the area drained by the Siletz River and the adjacent coast. They manufactured basketry in much the same technique as did the Tillamook. There are, however, several features which distinguish Siletz basketry from that of the Tillamook.

The materials which they used were conifer root and hazel, as did the Tillamook. The Siletz also made some use of tule. In the matter of decoration they depended more upon variation of weaving techniques than upon color. Yet in the instances where color was used they dyed tule and hazel with Alnus rhombifolia and mud.

The most distinguishing feature of Siletz basketry is the use of double handles which are superimposed one upon another. Although all the baskets of the coastal area with this doubling of handle are called Siletz, they are not necessarily made by the Siletz tribe. They have become known as Siletz from the name of the reservation on which the remnants of many of the Oregon coastal tribes live.

Most of these baskets, that is, the small hemispherical carrying baskets, are twined openwork. They often vary the appearance of the basket by crossing the warps. One basket of this type (L2-94) is interesting in that instead of crossing the warps, the appearance of doing so is obtained by

catching first one warp of a pair and then a warp of another pair by the twining stitch, a technique which is often called zig-zag warp. Often baskets of simple open twining are decorated by two rows of twining near the border where the warps are crossed.

The rim is finished by braiding the warp pairs. The handles are made by braiding three groups of three splints each, together.

Three strand twining is utilized for reinforcing the base and the rim. The typical start for Siletz basketry is accomplished by placing eight warps, laid out in two groups of four each, at right angles to each other held either by three strand or diagonal twining. Other warps are added later as needed.

Since the material utilized for basketry is very often hazel most of the baskets are rigid. Another feature which adds to the rigidity of Siletz basketry as well as the basketry of the other coastal tribes, is the use of double warps. Baskets made of tule are semi-flexible.

The southern neighbor of the Salish speaking Siletz was the Yakonan linguistic family which consisted of two tribes, the Alsea and the Yaquina. The Alsea and the Yaquina were very similar not only in language but also in culture. Since they were almost identical in culture I shall discuss them together. The Alsea occupied the drainage

basin of the Alsea River and the Yaquina lived on the Yaquina River and Bay as well as along the adjacent coast line.

As did the other tribes along the coast the Alsea and Yaquina made use of hazel twigs and conifer roots. Decoration was the typical overlay twining utilizing Xerophyllum tenax. The informant used by Barnett<sup>1</sup> denied the use of Alnus dye so it may be possible that the Alsea and the Yaquina utilized the moss found on the Hemlock as their source of red dye as did the Tillamook. Mud was used to produce black dye. Xerophyllum was frequently used in its natural state.

They made carrying baskets, much like those of the Tillamook, and storage baskets in open weave. Some storage baskets as well as water tight baskets were made of close twining. Simple twining with the normal direction of the pitch of the stitch being down to the left is supplemented by diagonal twining at the start of the basket and three strand twining used for reinforcing.

South of the Alsea the coastal area around the Siuslaw and Umpqua River is occupied by the Siuslaw and Lower Umpqua tribes. These groups spoke a language known as Siuslawan. These two groups were so reduced in numbers that by 1840 only a few survivors remained. The few survivors

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<sup>1</sup>Barnett, H.G., op.cit., p.171.

were moved to the Siletz reservation.

Materials and techniques are similar to the other coast tribes. Hazel twigs and conifer roots were employed for warps and wefts. Xerophyllum tenax was the chief decorative material but Adiantum pedatum was also utilized. Xerophyllum was used in overlay twining whereas Adiantum had enough substance to be used as the weft element. Alnus rhombifolia and mud were used as dyes.

They made a flat sifter, of close twining, coarse burden baskets and conical carrying baskets of open twining. Storage baskets were often treated with camas adhesive to make them waterproof.<sup>1</sup> Water cups were also manufactured.

Aside from the hazel and conifer roots the Siuslaw and Lower Umpqua also made use of tule for basketry. Tule was used in semi-flexible sack-like baskets.

The Siuslaw and Lower Umpqua used simple twining down to the left, and three strand twining which was used for reinforcement as well as the basket start.

Designs were ordinarily arranged in banding. However one small storage basket (1-5544) has an all-over decoration, the predominant zig-zag design of which is arranged vertically. The basket however may well be an attempt to copy a Klamath or similar type of basket.

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<sup>1</sup>Ibid., p.172.

South of the Siuslawan groups are the Kusan speaking peoples. These people are usually divided into two tribes, the Lower Coquille and Coos, on the basis that they spoke two separate and almost unintelligible dialects. Culturally, however, they are undifferentiated, except by minor variations.

Coos baskets utilize the same materials, hazel and conifer root, as do the rest of the coastal tribes. Xerophyllum tenax was the main decorative material.

Techniques employed by the Coos basket-makers were simple and three strand twining, the latter being used for reinforcing. Pitch of the stitch is normally down to the left, however in a large proportion of the Coos baskets in the museum collections the pitch of the stitch is down to the right. The number of cases in which the pitch of the stitch is down to the right is greater than the number which might be expected due to the occurrence of left-handed basket makers. One storage basket (1-9778), which I examined, is of particular interest, as the pitch of the stitch is changed several times in the course of construction.

Another feature which tends to set Coos basketry apart from the rest of the coast tribes is the rim finish to be found on the majority of the baskets. After the last row of twining the warps cross, then are bent along a stiffening rod and wrapped to it by a split conifer root. The rim thus resembles coiling with a rod in a bundle of

of warps.

The Coos-basket-makers made some use of false embroidery as well as overlay. Design patterns are arranged in bands. A typical decoration is the placement of triangles of natural Xerophyllum tenax on a dark reddish-brown background band.

Another feature which sets the Coos basketry apart is the shape of their baskets. Instead of the typical round bottom bowl-like shape so common along the coast they often make a truncated cone shaped basket, both in close twined and in open twined baskets. This shape is closely allied with the Shasta-Karok and Klamath basket shapes.

The Coos basketry is often very fine, that is, finely split roots are utilized. On the whole, the quality of workmanship of Coos basketry is higher than that of their neighbors, and they have a large number of very carefully made baskets.

According to the information gathered by Barnett<sup>1</sup> they also made a flat cap, referring in all probabilities to the type of hat similar to those made by the Klamath-Modoc rather than the round bowl-shaped hat of the Shasta and Karok.

In the southwestern corner of Oregon are a number

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<sup>1</sup>Barnett, op.cit., p.171.

of Athapascan tribes which occupied the upper valleys of the Umpqua and Coquille Rivers and along the coast south of the Coquille River into northwestern California.

The tribal life of the Indian population of this area, like most of the native groups in Oregon, disintegrated so rapidly after white contact that information concerning their culture must be obtained from the few survivors, most of which reside on the Siletz reservation.

The tribal units within this area are usually referred to as Upper Umpqua, Upper Coquille, the Tututni groups, Shasta Costa, Galice Creek, Chetco and Tolowa. Galice Creek and Applegate Creek are isolated islands of Athapascan people surrounded by the Lowland Takelma.

The basketry of this area was fairly well standardized. Hazel was used primarily as a warp element and split conifer roots were used for wefts. Decoration was applied by overlay twining using *Xerophyllum* in a natural state or conifer roots dyed red by *Alnus rhombifolia*, or black by mud. The shiny black stems of *Adiantum pedatum* are also used in the the same manner.

All of the groups made cooking and food baskets, flat caps, flat sifters of close twining, circular winnowing trays, coarse twined burden baskets, water-tight baskets, a cylindrical storage basket which was made both in close and open twining, and water cups.

The Tolowa and Chetco made tobacco storage baskets but the others (at least from information available) did not produce this type. The Towala, according to Driver's informant,<sup>1</sup> made open twine burden baskets with pointed base.

Three strand twining, used for reinforcing may have been utilized by all groups as it is a typical western Oregon trait but according to Barnett<sup>2</sup> only the informants from the Galice Creek group and the Sixes River subdivision of the Tututni indicated the use of this type of twining.

Design patterns seem to be geometric, horizontally banded. Realistic designs were reported from the Towala storage baskets and the water baskets of Galice Creek.

Within the museum basketry collections there are no baskets designated as being from any one of these groups. This is understandable in the light of their early disintegration and because many of the baskets collected from these groups and other tribes along the coast by the early collectors were designated only as Oregon coast as it was difficult to differentiate tribal differences in the basketry.

#### Southwestern Oregon Inland Tribes

The Takelman Indians occupied the middle and upper

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<sup>1</sup>Driver, Harold E., Culture Element Distributions: X Northwest California (University of California, Anthropological Records, I, no. 6, 1939) p. 334.

<sup>2</sup>Barnett, op.cit., p. 172.



Rogue River. The Takelman are divided into two groups; the Upland Takelman who lived on both sides of Bear Creek and along the Rogue in the Jacksonville and Table Rock region, whereas the Lowland Takelma claimed the middle Rogue, the upper courses of Cow Creek and southward into northern California. There are conflicting sources as to whether the Upland Takelma bordered on the Klamath, or whether the Shasta claimed territory between them.

Generally speaking, the Takelma had as neighbors on the north and west, the numerous Athapascan tribes of Oregon, and on the south, the Hokan speaking Karok and Shasta. Their neighbors on the east may have been the Sahaptin speaking Klamath. The Takelman were extremely hostile and thus were almost wiped out by the early white settlers and gold prospectors. In 1884 the twenty surviving members of the tribe were transferred to the Siletz reservation.

Although the Upland and Lowland Takelma were reported to differ, somewhat culturally, Sapir's ethnographic report<sup>1</sup> does not separate them in his discussion of material culture.

Basketry was utilized to a large extent for making cooking and food containers. They had a funnel-shaped basket

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<sup>1</sup>Sapir, Edward, "Takelma Indians of Southwestern Oregon", American Anthropologist, n.s. IX (1907) pp. 251-275.

which was placed on a flat pounding slab, a trait which is characteristic of the tribes in southwestern Oregon and northwestern California.<sup>1</sup> Coiled hopper baskets were made by the Sahaptin tribes of northeastern Oregon. The Takelma also had a circular basket which was used for sifting acorn meal. Hazel and conifer roots were employed in closely twined cooking baskets.

The Takelma made open work burden baskets of hazel or willow, and close twined basket-like eating plates, storage baskets and drinking cups. Rushes were used for manufacturing a large bag-like carrying basket.

According to Sapir the method of starting a basket was by using "four short hazel twigs perpendicular to four cross pieces, and the twining was done with some root or grass on a warp generally of hazel or willow".<sup>2</sup>

Alnus rhombifolia and mud were the only dyes used. Xerophyllum was often used in its natural state for white designs.

The Shasta and the Karok are the two members of the Hokaan linguistic family. Although the territory claimed

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<sup>1</sup>Kroeber indicates that this use of a hopper basket resulted from a need which was brought about by the change from a hollowed out mortar to a pounding slab. Kroeber, A.L., Handbook of the Indians of California. (Smithsonian Institution. Bureau of American Ethnology. Bulletin 76, 1925) p. 413.

<sup>2</sup>Sapir, op.cit., p. 261.

by the Shasta lies largely within California they also claimed the area around the upper Rogue River, east of the Klamath River.

The Shasta, unlike their neighbors, the Karok, did not put any great emphasis on basket making. They used baskets extensively and possessed the knowledge of their manufacture still they preferred to obtain them to a large extent from the Karok and Wintu.<sup>1</sup>

Shasta basketry employed twined techniques with the possible exception of the wrapping, which resembles coiling, used in incorporating the strengthening rod in mortar baskets.

The materials utilized by the Shasta were hazel (Corylus californica) or the willow (Salix) for the warps. Split pine roots were used for the weft strands. Xerophyllum and the stems of Adiantum pedatum were used as the overlay material for the fine basket caps. (L2-171, L2-298)

The Shasta produced, or at least had a variety of types and forms, baskets which were to all practical purposes identical with those made by the Karok.

Close twining was employed in storage baskets, cooking baskets and small trinket baskets. Large conical burden baskets and flat plate-like baskets were made in open twining.

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<sup>1</sup>Holt, Catherine, Shasta Ethnography (University of California, Anthropological Records, III, no. 4, 1946) p. 303.

The basket start, especially in the manufacture of hats was very neatly done. Eight warps were held, in two groups of four warps each at right angles to each other, by an over and over wrapping six times of the weft element. The warps are then held in a radiating position by several rows of diagonal twining before the simple twining proceeds. Additional warps are added as needed at regular intervals,

Like their Athapascan neighbors the Shasta used three strand twining to reinforce the joint of the bottom and side of the basket as well as near the rim.

The warps of the open work baskets are often crossed just below the rim. The rim is usually the typical braided rim accomplished by bending the warps over and twining them in. The rim of Shasta hats consisted of a row of very tight simple twining with the warps cut off flush with the top.

The pitch of the stitch on Shasta basketry was down to the left, like the coastal groups.

Overlay twining was utilized for decoration. Overlay was used on both of the wefts and the design may or may not appear on the inner surface of the basket, depending on whether a half or full twist was given the weft elements.

Alnus rhombifolia was used to dye the split roots reddish - brown for decoration. Yellow was used only to dye porcupone quills by the Shasta. Evernia vulpina was the traditional source of this yellow dye. Split Adiantum pedatum and Xero-

phyllum tenax were utilized in their natural state.

Design patterns are similar to those of the Karok and I will discuss it more in detail in connection with the Karok. It will suffice to say, at this point, that the simple triangular elements of the coastal basket makers have been expanded. While the coastal tribes usually decorated their baskets in bands the Shasta and their Karok neighbors, except on strictly utilitarian baskets used an all over pattern of decoration.

The Karok, although primarily a Californian group, claimed a small part of Oregon within the region of the headwaters of the Illinois River. The Karok belong to the Hokan linguistic family. Culturally they are indistinguishable from their southern neighbors, the Yurok, who speak a dialect of Algonquian.

The Karok were makers of a great variety of baskets which were of excellent quality. Lila M. O'Neale has an excellent study<sup>1</sup> of the basketry of this group in which she approaches the study of basketry by "investigation of the subjective attitude of the weaver" and to determine "individual reactions to craft aspects".<sup>2</sup> She attempts to study basketry designs by relating the basket maker "to

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<sup>1</sup>O'Neale, Lila, M., Yurok-Karok Basket Weavers (California Publications in American Archeology and Ethnology, XXXII, no. 1, 1932)

<sup>2</sup>Ibid., p. 5.

the conventions, or whatever variations seem to have taken place in form or pattern, and to let her define in terms of the tenets of her craft relative importance of its aspects."<sup>1</sup>

In the discussion which follows I have relied heavily on the above mentioned study as I did not have the opportunity to observe, first hand, Karok baskets in any number.

A greater variety of basketry materials are used by the Karok than by most Oregon tribes. For foundation warps Corylus californica, hazel, was considered to be the best, however many weavers also utilized willow. According to O'Neale the most skilled workers favored myrtle for foundation<sup>2</sup> and this material reportedly was utilized to a great extent in previous times. Conifer roots were used as weft elements. The Karok made use of spruce and pine roots, and roots of the redwood. In the more rigid baskets they used hazel or willow twigs for the wefts. Not only were twigs of hazel, willow and alder utilized but also the small roots of these plants for very fine baskets, such as gift baskets and hats.

The Karok utilized much the same overlay materials as did the basket makers along the Oregon Coast, that is, Xerophyllum tenax, Adiantum pedatum, Woodwardia radicans and occasionally porcupine quills. Adiantum was always used in its natural state, shiny, black. Xerophyllum was usually

<sup>1</sup>Ibid., pp. 5-6.

<sup>2</sup>Ibid., p 17.

left in its natural state, Red overlay was always Woodwardia dyed with Alnus rhombifolia. Yellow was produced preferably by Evernia vulpina and was originally limited in use to porcupine quills, however, in recent times Xerophyllum tenax, dyed yellow by using Berberis Nervosa roots, has been substituted. Mullein was also used to produce yellow but only if the other dyes were unobtainable. Mud dyed conifer roots were occasionally used for dull black patterns.

All Karok baskets were twined. Storage baskets, for wood and fish, and plaques and plates were made of coarse open twining. Cooking and food baskets, dippers, water baskets, storage baskets for seeds, hats, and ceremonial baskets were all made of close twining. The hats, fancy gift baskets, and ceremonial baskets were all very carefully made and it is here that the extremely fine quality of workmanship among the Karok manifests itself.

The Karok began their baskets on eight warps, placed in two groups, each of which consisted of four stickes, at right angles to each other. The warps were then bound together by an over and over wrapping by the weft. The warps were then radiated out and held in place by about 2cm. of three strand twining. Other warps were added as needed throughout the manufacture of the basket. Three strand twining also occurs as reinforcing especially on hats and food baskets.

The direction of work is from left to right with

the outer surface of the basket next to the worker. The pitch of the stitch is down to the left.

Another twining technique which was formerly employed to strengthen cooking baskets was the addition of two rows of roots laid at right angles to the warps and encircling the outside of the basket at its mid-point. This technique resembles very closely and results in the same rigid appearance as does lattice twined weaving.

The rim was finished on most Karok baskets by simply cutting off the warps after the last row of twining. In a few baskets this last row was three strand rather than simple twining. Rarely the baskets were finished by coiling over the bent warps, a technique which is identical with that of most Coos baskets.

Methods of decoration, design elements and colors were determined largely by the form and function of the basket. Among the Karok Xerophyllum tenax was the traditional decorative material used in food baskets to contrast with the natural brownish color of the conifer roots. In hat designs black and white could be used either with yellow quills or red dyed giant fern but to use red and yellow on the same basket was considered very poor design.

The designs were chosen to compliment the type of basket. Thus big baskets had big designs, utility baskets or work hats had plain designs, and storage baskets had ele-



mentary patterns of dots and stripes. Tall storage baskets usually had a vertical design pattern rather than horizontal.

Designs are geometric as realistic ones, especially men and animals are not considered proper for basket patterns. Designs, at least concepts of what constitutes good or bad patterns have become more or less standardized, although a weaver is free to vary a standard pattern into what may be termed a new design, however a radical deviation will be looked upon with distaste by other weavers.

A few of the frequently used design patterns may be described as follows. A flint design which resembles a parallelogram slanted up toward the left, a divided flint, or triangle, is often used as a main design. Snake marks or zig-zags are lines used to supplement designs and should never be used alone. A design known as the Wax'poo Mark is also frequently used. It consists of a trapezoid topped by an inverted isosceles triangle.

Designs are often copied from old baskets and those baskets which are considered to be especially well decorated will be kept to use as models for several generations.

#### Klamath - Modoc Tribes

The Klamath and Modoc speak similar dialects of the Lutuamian division of the Sahaptin linguistic stock. The Klamath occupy the territory in the shallow basin on the high

plateau of southwestern Oregon around the lakes which give rise to the Klamath River. The Klamath center around Klamath Lake, Klamath Marsh and along the connecting Williamson River. The Modoc lived around Lower Klamath Lake and Tule Lake and extended southward into California.

Culturally the Klamath and Modoc were so much alike that even some of the neighboring tribes did not differentiate between them. Thus, I will discuss the basketry of the two groups together.

Up to this point the tribes discussed have lived west of the Cascades and their basketry belonged within the coastal tradition. With the Klamath and Modoc begins the discussion of types of basketry to be found east of the Cascades and, as will be shown later, belongs to the Basin-Plateau tradition. I have chosen to treat the Klamath-Modoc in a separate section rather than with the rest of the eastern Oregon tribes, as the Klamath-Modoc lacked coiled ware, a technique employed by the rest of the tribes of the Basin-Plateau.

The study of the Klamath basketry available in the Museum collections was supplemented with the published ethnographic reports on the Klamath and Modoc by Barrett<sup>1</sup> and

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<sup>1</sup>Barrett, S.A. Material Culture of the Klamath Lake and Modoc Indians, (University of California Publications in American Archeology and Ethnology, V, no. 4, 1910).

Spier<sup>1</sup>.

There are several features which distinguish Klamath basketry from that of the coastal groups. Perhaps the most diagnostic trait is the predominant use of twisted tule, Scirpus lacustris accidentalis, warps in the place of the hazel and conifer roots which were the principal materials of western Oregon tribes. In fact Kroeber makes the statement that "the material culture of the Modoc is distinguished by the almost infinite use made of tule and bulrush".<sup>2</sup> This is an example of use well adapted to the availability of the material.

The materials used by the Klamath for the manufacture of basketry were extremely varied although tule was basic. The warps and occasionally the wefts of soft-flexible baskets are made of twisted tule. This twisted tule, often referred to as two-ply tule cord, is made by cutting narrow strips from the stem surface and, "doubling a length of material, rolling the strands side by side down the thigh under the palm, then, without raising the hand, rolling one strand around the other by a quick movement up the thigh".<sup>3</sup> In the coarse storage baskets unsplit tule is used.

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<sup>1</sup>Spier, Leslie, Klamath Ethnography (University of California Publications in American Archeology and Ethnology, XXX, 1930).

<sup>2</sup>Kroeber, op.cit., p.323. <sup>3</sup>Spier, op.cit., p. 179.

Typha latifolia, cattail, was prepared in much the same manner as tule, and these twisted neutral colored cords were used as wefts in the majority of the small bowls and hats.

The fine tule root, which when dried is reddish-brown in color is used widely as a weft element to produce the designs on hats in contrast to the neutral colored Typha latifolia.

The rims of fine cooking bowls, hats and often storage baskets are bound by a single row of twining, the weft strands of which are made of the gray twisted bark of Urtica lyallii, nettle. This same weft is also used at the start of the basket to bind the warps together and for approximately 2 cm. of the diagonal twining on the basket base.

Phragmites phragmites, or common reed, was also used in the manufacture of the finer baskets. The peeled strands from the surface of the stem and split them "till they have a width of commonly 2 to 3mm."<sup>1</sup> These strips of cane are creamy white and shiny smooth.

Young willow shoots, stripped of their bark, were used for rigid openwork carrying baskets and sifters.

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<sup>1</sup>Coville, Frederick V., "Notes on the Plants Used by the Klamath Indians of Oregon", Contributions from the U.S. National Herbarium, V(1897-1901) pp. 87-108. p. 91.

Xerophyllum tenax does not appear on Klamath baskets<sup>1</sup> however Kroeber reports its use by the Modoc in California as follows, "Xerophyllum is used chiefly on caps and seems sometimes to be overlay".<sup>2</sup>

The sources of dye for Klamath and Modoc basketry were Alnus rhombifolia which produces reddish-orange, and mud or the seeds of Nymphozechanthus polsepalus, yellow water lily, for black. The Modoc dyed porcupine quills yellow with Evernia vulpina. Coville<sup>3</sup> states that the Klamath obtained their quills from the Modoc, however Spier<sup>4</sup> sees no reason why the Klamath should not have obtained their own.

The baskets of the Klamath and Modoc may be divided into two groups. Into one group fall the flexible and semi-flexible close weave baskets and into the other group fall the rigid open work baskets.

Among the first group are the twined bowls, hats, gambling and sifting trays, circular baskets and bags used for both carrying and storage. The baskets which belong to the latter group are carrying baskets, storage baskets and

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<sup>1</sup>Coville, op.cit., does not list Xerophyllum as being a plant used by the Klamath Indians.

<sup>2</sup>Kroeber, op.cit., p. 331.

<sup>3</sup>Coville, op.cit., p. 88.

<sup>4</sup>Spier, op. cit., p. 191.

winnowing baskets. The Modoc made a mortar basket, unlike the Klamath.

Apart from the twined basketry of the Klamath, Spier reports the presence of a coiled water basket, but suggests that it is "a recent introduction in imitation of Northern Paiute technique, although their baskets have constricted necks".<sup>1</sup> This coiled water basket is described as follows:

This is a bucket-shaped affair, possibly twelve inches high, with a mouth diameter of ten inches. It lacks a bail. The coil has a two-rod foundation of split tamarack twigs (wa'ku emwa'wuk). Stitching is on the nearer face, proceeding from left to right, working from the outside. That is, the coil is counterclockwise to one looking into the mouth of the basket. This bears no designs, nor is it painted. It receives a coating of pitch on the outside to render it watertight.<sup>2</sup>

Simple twining with the pitch of the stitch being down to the right is by far the most common technique employed by the basket-weavers. Diagonal twining is often used at the start of the basket. Three strand twining was used to reinforce the base and rim of the simple twined baskets. It was also used as a means of decoration. This technique was used to make storage baskets more rigid.

The direction of work was from left to right the outer edge being the work surface.

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<sup>1</sup>Spier, op.cit., p. 190.

<sup>2</sup>Ibid., p. 190.

The way in which the Klamath started their close twined baskets is one of the characteristics which sets the basketry of this area apart from their neighbors west of the Cascades. A number of twisted tule wefts are laid side by side. The weft strand, usually the twisted bark of Urtica lyallii, is wrapped around the midpoints of the warps several times then weaving begins. At first the wefts are woven across the warps in diagonal twine, each stitch of which passes over a bundle consisting of a number of twisted warp strands. At the end of the row the end bundles are caught together so as to begin the radiation of warp. Diagonal twining continues often to the edge of the basket base where simple twining is begun. The bundles are progressively divided and subdivided until single warps are woven together by simple twining. Additional warps are added when needed, the end of the warp being caught in the twine stitch.

The typical Klamath rim finish is described by Spier as follows:

To finish the edge around of diagonal twine crossing warps in pairs is woven; the ends of the warps are caught in this in the following way. Alternate warps are left standing, ultimately to be trimmed off close under the rim. The other warps are each carried to the right and forward over the edge of the rim where they are caught under the next succeeding twine stitch. As they pass forward they are twisted around the succeeding warp but one, passing back into the interior of the basket. The ends of these are then trimmed short.<sup>1</sup>

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<sup>1</sup>Ibid., p. 181.

According to Spier "in former days hats were the only baskets decorated by the introduction of designs",<sup>1</sup> but today since much of the basket weaving is done for sale to the whites, decoration has been transferred to other baskets.

The design patterns on Klamath baskets consist largely of "large unconnected units, leaving much background space".<sup>2</sup> These units of design are usually in the form of triangles or rhomboids. Either vertical or horizontal lines are also used. The basic pattern of Klamath designs were arranged in horizontal bands which often slanted diagonally up toward the left. Design elements are related but not combined, with the exception of the narrow horizontal band at the rim and around the base.

#### Eastern Oregon Tribes

East of the Klamath and Modoc were the Northern Paiute who occupied the southeastern part of Oregon, and the adjacent territory in California and Nevada, that is to say, the northern part of the Great Basin. The Paiute were divided into bands, however, their material culture was much the same.

The Northern Paiute comprise the Shoshone speaking

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<sup>1</sup> Ibid., p. 191.

<sup>2</sup> Ibid., p. 192.



population of Oregon. In much of the literature on the tribal divisions within eastern Oregon many of the Shoshonian peoples were formerly called Snakes and Bannocks, an error which originated with Lewis and Clark.<sup>1</sup>

The Paiute made both coiled and twined ware. The basic material reported to have been used in the manufacture of basketry was willow, Salix.<sup>2</sup> It may be that sagebrush bark was also used in the twined baskets.<sup>3</sup> It was used both for coiled and twined baskets. Peeled willow shoot rods were used for warps and foundation whereas these rods are split into two or three pieces for wefts or splints.

Mud or crushed ripe currants seem to be the only method used to dye basket-making material by the Paiute.

Northern Paiute coiled ware has either one, two, and rarely three rod vertical foundation and plain stitches. The usual direction of work is clockwise on the convex surface of the basket. Most Paiute coiled ware seems to be oval in shape, a feature which Kelly believes is a result

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<sup>1</sup>Stewart, Omer C., The Northern Paiute Bands (University of California, Anthropological Records, II, no. 3, 1939) p. 144.

<sup>2</sup>Kelly, Isabel, Ethnography of the Surprise Valley Paiute (University of California Publications in American Archeology and Ethnology, XXXI, 1932) p. 120

<sup>3</sup>Lowie, Robert H., "The Northern Shoshone". Anthropological Papers of the American Museum of Natural History, II, 1909, pp. 165-306. p. 179.

of an unconscious attempt to use an easier starting technique.<sup>1</sup> Almost all of the coiled ware has a footed base which is made by joining a row of three rods to the juncture of the base and the wall.

Twining was used for a variety of baskets; conical burden baskets, cooking baskets, food bowls, and water jars.

The conical burden baskets are made either in open twine or in close diagonal twine depending upon the function which the basket is to serve. The construction of an open twine burden basket is described by Kelly.

The start is on a pair of warp sets, each consisting of eight rods. The first few rows are twined on double warps. At the start the twine is solid; after two or three inches it becomes simple open twine with the rows spaced an inch or more. . . . A willow hoop is lashed to the turned down warps and another hoop applied on the interior about half way down.<sup>2</sup>

Warps were bound in as they were needed.

Cooking baskets and food bowls were made in tight weave. The water jar of the Northern Paiute had pointed bottoms and constricted necks. Close diagonal twine was used in construction and the outside as well as the inside was coated with pitch.

Twining proceeded from left to right and the work surface was the convex side. The pitch of the stitch was so

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<sup>1</sup>Kelly, op.cit., p. 122.

<sup>2</sup>Ibid., p. 125.

varied and irregular that Kelly felt that it could be due to "carelessness and an inattentiveness to detail".<sup>1</sup>

The design, if any, on Paiute basketry was limited to a band in which a color darker than the material used for the rest of the basket was employed.

North of the Northern Paiute are a number of Sahaptin speaking tribes; Molalla, Tenino, Umatilla, Cayuse, and Nez Perce'.

There has been much controversy over the relative territories claimed by these groups. The Molalla, according to Berreman,<sup>2</sup> around 1750 occupied the area east of the Kalapuya groups, south of the Wasco, west of the Northern Paiute, and extended southward to the Klamath. Murdock<sup>3</sup> states that the Tenino were more powerful and by 1850 had driven the Molalla west of the Cascades and Berreman indicates that the Molalla were split into two groups by the Northern Paiute.<sup>4</sup>

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<sup>1</sup>Ibid., p. 130.

<sup>2</sup>Berreman, Joel V., Tribal Distribution in Oregon (American Anthropological Association. Memoirs. no. 47, 1937), p. 70.

<sup>3</sup>Selection by Murdock 'Notes of the Tenino, Molala, and Paiute of Oregon' in the article by Ray, Verne, F., and Others, "Tribal Distribution in Eastern Oregon and Adjacent Regions", American Anthropologist, n.s. XL (July-September 1938) p. 397.

<sup>4</sup>Berreman, op.cit., p.46.

The Tenino, according to the information collected by Murdock, occupied the banks of the Columbia between the Upper Chinook (Wasco and Wishram) on the west and the Umatilla on the east, as well as the lower reaches of the Deschutes and John Day Rivers.<sup>1</sup>

Although the Tenino and the Molalla spoke dialects which were not understandable to each other as well as being on unfriendly terms, they resembled each other closely in culture. So, although the succeeding discussion of basketry is based on Tenino material it is also applicable to the Molalla.

The following information on Tenino basketry is adapted from Ray's material in his Culture Element Distribution: XXII, Plateau.<sup>2</sup> His informant believed that coiled ware was present only as trade ware and that twined basketry was the only kind manufactured by the Tenino.

Close simple twining was the predominant technique. Openwork was rarely used. Wrapped twining and overlay were employed for decoration techniques. Twilled work was also found among the Tenino.

Materials used by this group were Salix, Cedar bark, and Xerophyllum tenax. Rushes were used in checkerwork

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<sup>1</sup>Murdock, op.cit., p. 395.

<sup>2</sup>Ray, Verne, F., Culture Element Distributions: XXII, Plateau (University of California, Anthropological Records, VIII no. 2, 1942) pp. 159-161.

baskets. Willow was the material employed in the manufacture of twined storage baskets.

The Umatilla and Cayuse, although speaking variant dialects of Sahaptin, were very similar in culture. The Umatilla occupied the territory west of the Tenino, along Willow Creek and the Umatilla River near the Columbia. The Cayuse, east of the Umatilla, did not border on the Columbia but occupied the drainage area of the Umatilla River, the Walla Walla River and the upper reaches of the Grande Round.

According to Ray's informant, coiling was the principle basketry technique, however twining was also extensively used for soft baskets.

Basketry materials included willow, rushes, and cedar bark. Xerophyllum tenax and corn husks were used for decoration. The Umatilla and Cayuse made use of a large number of dyes; Alnus rhombifolia, Berberis nervosa, maple, Evernia vulpina, crushed huckleberries and mud, both black and white.

In the coiled basketry the Umatilla used splint and bundle foundation, with either round or oval cross-section shape. The two coiled Umatilla baskets (1-789 and 2-2115) which I examined had a willow rod and split willow splint. The foundations were sewn with non-interlocking stitches which were split on the non-work surface.

Mason describes the twined work of these groups

as follows:

The Cayuse (Wailalpuan) and Umatilla (Shahaptin) made soft baskets in twined weaving. They are horse Indians and use their wallets for saddle bags. The materials is rushes, wild hemp, corn husks, and worsted. The bottoms and undecorated portions are plain twined work. In the figured parts the husks, split into narrow strips are administered in four ways- by overlay, not showing on the inside, by overlaying and twining so as to show on the inside; by false embroidery, wrapped about the weft twine elements on the outside, and by frapping the twined weft as in the Thompson River work.<sup>1</sup>

A soft twined bag of this type (1-5338) is unusual in that it uses strips of cloth as warps. The weft is some type of cordage which is probably commercial rather than native. The basket has the typical bundle -warp start used by the Klamath. The pitch of the stitch is down to the right. The basket is decorated with dyed corn husk strips applied in false embroidery. The corn husk was dyed red, yellow and purple. The design was banded with broken spaces.

Ray alone indicates that the Umatilla decorated coiled basketry by imbrication,<sup>2</sup> however, it is doubtful if this technique was used to any extent, if at all, by the Oregon Umatilla.

The Nez Perce' are primarily an Idaho tribe, who occupied the northeastern corner of Oregon. They shared the

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<sup>1</sup>Mason, op.cit., p. 439.

<sup>2</sup>Ray, Culture Element Distribution:XXII, Plateau, op. cit.,p. 160.

Grande Round Valley with the Cayuse and their boundary line in Oregon "ran north along the crest of the Blue Mountains to a point on Snake river near the mouth of Tukanon creek."<sup>1</sup> "There are no traditions of migration, and, as far as can be determined, the tribe has dwelt within these boundaries from time beyond memory."<sup>2</sup>

The Nez Perce' used both twining and coiling although twining was the principle technique.

Salix, willow, and Apocynum cannabinum, Indian hemp, were the two principle basketry materials. The former used for coiling and the latter for twining. The hemp was made into cordage which was used as the warp elements in all of the flexible baskets. Xerophyllum tenax and corn husks were used for decoration.

The Nez Perce' made twined flat wallets, carrying baskets and hats. Coiling was used for making water-tight cooking vessels, food bowls, cups, mortar baskets, and winnowing baskets.

The wallets of simple twining were decorated by false embroidery. Functional wrapped twining appears on the soft cylindrical carrying baskets. Although this technique seems to be used to carry the design pattern it is often used

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<sup>1</sup>Spinden, Herbert J., "The Nez Perce' Indians". American Anthropological Association, Memoirs, II (1907-15), p. 173.

<sup>2</sup>Ibid., p. 173

throughout the band carrying the design. The pitch of the stitch is down to the right. The basket start was similar to that of the Klamath. The rim on carrying baskets was usually covered with a strip of leather.

The Nez Perce' also made basket hats using natural or brown dyed Xerophyllum tenax in design patterns which were "almost entirely arranged in zig-zags, with three points at the top and three at the bottom".<sup>1</sup>

These basket hats were shaped much like the flat-topped Klamath-Modoc hats, and Spinden states that it was in these hats that "the textile art of the Nez Perce' reached its highest development".<sup>2</sup>

Coiled ware was a technique which the Nez Perce' copied from the Yakima and Klikitat basketry. The foundation normally consisted of rod and splint or two rod vertical. The funnel shaped mortar baskets were rather crudely made with a varying number of rods in the coil. The stitches of the cooking baskets were split.

Spinden indicates that the Nez Perce' had formerly taken over the technique of imbrication from the Klikitat but that at the present time only a few old women could duplicate it.<sup>3</sup> In all probabilities however, the technique,

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<sup>1</sup>Ibid., p. 193.

<sup>2</sup>Ibid., p. 193.

<sup>3</sup>Ibid., pp. 193-194.



as an accepted pattern, was not accepted as far south as the Oregon Nez Perce' except as trade ware.

The Wasco, the fartherest east of the Chinookan groups which inhabited the banks of the Columbia, had villages along the river from Celilo Falls to the mouth of the Deschutes River. Teit says that the Wasco also laid claim to the country as far east as the John Day River, but never occupied it.<sup>1</sup>

Although the Wascos had both twined and coiled basketry, the coiled baskets, in all likelihood, were trade ware from the Klikitat. The coiled basket was known as a 'Klikitat berry basket' and also the Klikitat believed that the Wasco did not make coiled basketry.<sup>2</sup>

The Wasco made several types of twined baskets. They had soft twined baskets, which came to be known as Sally bags in an attempt to say saddle bags, coarse open twine used for large carrying baskets, and a circular twined basket for storing pulverized salmon. They also made twined baskets caps of grass.

Diagonal twining was used at the start of most twined baskets and sometimes continued on the edge of the

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<sup>1</sup>Teit, Middle Columbia Salish., op. cit., p.107.

<sup>2</sup>Haeberlin, H.K., James A. Teit, and Helen H. Roberts (under the direction of Franz Boas), Coiled Basketry in British Columbia and Surrounding Region, (Forty-first Annual Report, Bureau of American Ethnology, 1928, p.119-484), p. 136.

base but occurred on the sides only as an occasional diagonal line across the plain twined bands separating the decorative bands, and near the rim. For the most part however simple twining is used, the pitch of the stitch being down to the right.

Basket making materials consisted of Salix, willow, and Picea Engelmanni, cedar bark and roots. Xerophyllum tenax and dyed corn husks were used occasionally for functional wrapped twine decoration. The decoration was applied in bands and since functional wrapped twining was used in the actual design, the Wasco, like the Nez Perce' often used the technique throughout the decorative band. The rim of Wasco baskets is almost always bound with buckskin or cloth. Design elements are arranged both in horizontal bands and in vertical columns, the former being the more common. Both geometric and realistic designs are present. The realistic patterns depict men, horses, fish, birds, and dogs.

### CHAPTER III

#### DISTRIBUTION OF OREGON BASKETRY

##### Ethnic Distribution

As has been illustrated in the preceding discussion of the typology of Oregon basketry, the basketry of Oregon may be divided roughly into two classes. One class to be found west of the Cascades and another east. Thus the Cascades can be treated as a line of demarkation.

It is indeed strange that the Columbia River which acted as a trade way for east-west traffic also acted as a barrier for basketry types coming down from the north. The chief illustration of this is the decorative technique of imbrication. This technique was utilized and highly developed among the Salish tribes of the northern Plateau. The knowledge passed southward as far as the Klikitat tribe. The Wishram on the north bank and the Wasco on the south bank of the Columbia, were in contact with the Klikitat and often obtained imbricated baskets in trading, yet, they did not copy the technique. The possible explanation for this negative attitude toward imbrication may be in the fact that basically coiled basketry was not one of their crafts. Since they did not manufacture coiled basketry they had no basis

on which to adapt a technique of decoration applied to that kind of baskets.

Although the Northern Paiute and Sahaptin-speaking peoples who had coiled basketry traded with the Wasco the contact was so intermittent that the knowledge of imbrication did not diffuse. Another contributing factor may lie in the negative attitude which the Northern Paiute and Sahaptins had toward decorating strictly utilitarian baskets, most of which were coiled.

As was mentioned in the preceding discussion of typology both the Umatilla and the Nez Perce' were accredited with imbricated baskets. It is indeed possible that the knowledge of this technique was not wide spread but was limited to a few basket makers who had been captured from the northern Salish tribes and had married into the Nez Perce' and Umatilla.

Since slave traffic throughout much of Oregon was extremely common it is no wonder that basketry forms and techniques should be so wide spread in distribution.

The main distinction between the basketry of the western coastal tribes and that of the tribes living east of the Cascades is the manufacture of coiled ware by the eastern tribes. The only example of coiled basketry west of the Cascades in Oregon is the possible manufacture of coiled baskets by the Kalapuya in the Willamette Valley. Even here

the appearance of coiled ware can be traced to the influence of the Sahaptin peoples who passed through the Willamette Valley on their way to trade at The Dalles on the Columbia.<sup>1</sup>

The types of baskets which were manufactured in western Oregon utilized only twining techniques. The majority of these baskets were made of simple twining, with the pitch of the stitch being normally down to the left. Diagonal twining occurs frequently especially at the start of the basket and occasionally as a method of decoration. Three strand twining used as reinforcement at the point of juncture between the base and the sides of the basket and again at the rim is a distinguishing feature of the basketry made by the coast peoples. Functional wrapped twining was used only by the Chinook and was not typical for the coastal groups.

The majority of the West Coast basketry was manufactured of either hazel or split conifer root, the choice of materials depending upon the function the basket was to serve. Large semi-flexible carrying baskets were made entirely of split conifer root, whereas hazel was employed chiefly for rigid storage baskets. Twining was either close or open; close twining was employed for food baskets, for water-tight baskets, whereas, open twining, in which the twining was

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<sup>1</sup>Teit, op.cit., pp.120-121.

spaced leaving open spaces between the warps which may or may not have been crossed between each row of twining, was employed in the manufacture of carrying baskets, coarse wood baskets, some storage baskets, and clam baskets.

The techniques used for decoration were overlay twining and occasionally false embroidery. The materials utilized were normally Xerophyllum tenax, however, conifer roots and tule were often dyed black by mud, and red, either by Alnus rhombifolia or Hemlock Moss. The split stems of Adiantum pedatum were used for shiny black decoration. Although Xerophyllum tenax was utilized only as overlay both dyed conifer root and tule, as well as Adiantum pedatum, more often replaced the usual weft element. Since Xerophyllum was restricted to the higher altitudes and thus had to be traded for, a few of the coast peoples resorted to means of decoration other than overlay. The Siletz especially, turned to variation within the weaving techniques, such as crossed and zig-zag warps in their open twine baskets.

Generally speaking the designs of the coastal basket-makers were arranged in horizontal bands. This banding of design was not always in the form of solid stripes. Triangular elements were often arranged in horizontal patterns. All over patterns were not made to any great extent. The Clatsop were the only group to make all over

patterns and then only in their functional wrapped twine baskets. This concept of complete decoration of basketry was adopted after white contact by the other coastal basket makers in order to make them more salable to white buyers. The walls of the modern food baskets of the southwestern Oregon tribes are sometimes decorated in an all over pattern, a concept which they obtained in all probability from the California basket making groups.

Another aspect of this problem concerning the concept of all over decoration is the high degree of skill needed. O'Neale in her study brought out that there are two very different types of technical proficiency involved in the manufacture of close twine decorated baskets and open twine baskets, and that no weaver is expected to be equally proficient in both types.<sup>1</sup> Thus those groups who depended on the use of wood or bark for their cooking vessels were not skilled enough in close twining, as they specialized in open twining for carrying and storage baskets, to handle an all over decorative pattern with any degree of accuracy. Where there was a necessity for close twining, such as in southwestern Oregon, the greater proficiency in close twining led to the ability to handle all over design patterns.

Among the eastern groups coiled ware supplemented

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<sup>1</sup>O'Neale, op. cit., pp. 166-167.

twined baskets. There were three types of foundation used in coiling; one rod, rod and splint, and two rod vertical. Three rod vertical was rarely used. The foundation coil was held by non-interlocking stitches which were frequently split on the non-work surface. The irregularity which occurred in the split stitches and the variation of the foundation within a basket indicated the coiling was not too carefully done, a fact which might indicate either that the coiling was a new technique or that with the use of leather, a trait adapted from the Plains groups which were being pushed into the Plateau area, that interest in basket making declined. I am inclined to believe that the latter is the case.

In contrast to the twining on the western baskets the pitch of the stitch on eastern baskets is usually down to the right. Diagonal and simple twining were both used. Diagonal twining was widely used in the tightly woven water jars. Near the Columbia functional wrapped twining, was used originally only on the design pattern, later however, it came to be utilized throughout the space to be decorated.

The eastern tribes made several types of baskets which were distinctive to the area; the conical twined carry-ing basket, the close twined pointed water jar, and coiled mortar basket.

The most widely used materials were willow and Indian hemp. The tribes along the Columbia utilized Xero-



phylлум tenax and dyed corn husks applied either in wrapped twine or false embroidery for decoration. The tribes within the Basin Plateau usually limited decoration on basketry to bands of contrasting color.

It would appear that the basketry made along the Columbia and that made by the tribes along the California border are the most highly developed in Oregon.

Within, or just prior to, the historic period (1800-1850) the movement of basketry techniques seemed to be moving into and within Oregon by several routes. Functional wrapped twining seems to have moved southward along the coast into Oregon and was carried by the Chinook up the Columbia. In eastern Oregon the techniques, especially the bundle warp start of the Klamath-Modoc, were working northward. Imbrication seems to have been penetrating down into Oregon to the Nez Perce' and Umatilla. Before any generalizations are drawn as to the importance of these distributions and movements it would be well to glance briefly at the archeological distributions.

#### Archeological distribution

Information on basketry belonging to the archeological horizon is available only for that portion of Oregon within the Basin Plateau. Since the basket specimens which were found are analyzed in detail in Cressman's publication

I will only summarize the techniques which were used.<sup>1</sup>

Examples of both twining and coiling were present. In the twined pieces, twisted, two-ply Scirpus lacustris, tule, was the material used. Simple twining with the pitch of the stitch down to the right occurs just as in the modern baskets of the area. Diagonal twining occurs also, but only a few specimens were found. One type of woven basketry which is not used by present day tribes but is represented by a single specimen is wickerwork. Twined overlay, wrapped twine overlay, and false embroidery were the methods of decoration. Xerophyllum tenax appears to be the main decorative material. The rim finish was accomplished by cutting the warps off even with the last row of twining.

The type form of twining which is found in the caves of eastern Oregon has been called Catlow twine.

The type is a close twine on a two-ply twisted warp. The pitch of the stitch is usually down to the right. . . . The type form is always semiflexible, intermediate between the rigid basket and the soft bag or basket of the Columbia Plateau and the Basket Makers.<sup>2</sup>

The basketry found in the Eastern Oregon caves is similar to the archeological specimens found from south

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<sup>1</sup>Cressman, *op. cit.*, pp. 33-51.

<sup>2</sup>Ibid., p. 33.

central Washington to Lovelock Cave, Nevada and the San Juan area, however, there are many gaps between. Stratigraphically fragments of twined basketry are found at the earliest level at Catlow I, which places it at an earlier geologic time than that found at Lovelock Cave, Nevada.

The basic aspects of Catlow Twine are still carried on by the Klamath.

In the Columbia Plateau the twining process includes not only many of the traits of the foundation but decorative techniques and basic design patterns; on the northwest coast the Tlingit basketry is striking in the number of traits shared with the Columbia Plateau and the Oregon caves.<sup>1</sup>

As for the few coiled fragments of baskets found in the Oregon caves the foundations are one, two, and three rod vertical, three rod triangular, and two rod horizontal. One rod with interlocking stitch seems to have a wide distribution both within the archeological horizon and among modern groups extending as it does northward into Asia.

Both the scanty archeological and ethnic evidence would indicate that coiling may have had its origin some where north of the generally accepted southern Basin area, although it did reach a high point of development within the Anasazi area.

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<sup>1</sup>Ibid., p. 45.

Returning to the problem of the possible routes of diffusion which basketry techniques may have taken, the archeological evidence, at first glance seems to contradict the historic pattern. However it is entirely possible that instead of the influences coming in from the Southwest that the center was in the northern part of the great Basin and twining techniques were passed northward through the Columbia Plateau to the groups along the northwest coast where they reached a high point of development and then during the period just prior to the historic period the movement was southward along the coast.

In the section dealing with Oregon typology it was shown that all these groups which spoke dialects of the same linguistic stock manufactured baskets which were similar in form and function as well as technique of weaving and sewing.

The most notable instance of the correspondence between basketry types and linguistic stocks is the Salpian group (Klamath-Modoc, Kootenai, Tenino, Umatilla, Wapato, and Nez Percé) who, although spread from the California border to the Columbia, present, notwithstanding local variations, a fairly consistent pattern. The accuracy of the flat topped, ice-shaped hat worn by the women throughout the Salpian area is but one of the traits which they shared. The neighbors of the Klamath, the Shoshone speaking Shasta and Washo, also

## CHAPTER IV

### PROBLEMS OF RELATIONSHIP

As has been seen from the previous discussion of the typology of Oregon groups and the distribution of these types both within the historic and archeological horizon that there are problems of possible relationship patterns involved. First there is the possible relationship between basketry types and linguistic groups and secondly, there is the relationship of eastern Oregon basketry of the archeological horizon and that of the Basin Plateau.

In the section dealing with Oregon typology it was shown that all those groups which spoke dialects of the same linguistic stock manufactured baskets which were similar in form and function as well as technique of weaving and sewing.

The most notable instance of the correspondance between basketry types and linguistic stocks is the Sahaptin groups (Klamath-Modoc, Molalla, Tenino, Umatilla, Cayuse, and Nez Perce') who, although spread from the California border to the Columbia, present, underlying local variations a fairly consistant pattern. The occurrence of the flat topped, fez-shaped hat worn by the women throughout the Sahaptin area is but one of the traits which they shared. The neighbors of the Klamath, the Hokan speaking Shasta and Karok made

round bow-shaped hats.

This correspondance between linguistic groups and basketry types may be due to a number of causes. One reason lies in the fact that all peoples that share a native language in all probabilities share a common origin and thus a more or less common culture. Another basic cause is the ability to communicate, which adds to the speed with which diffusion can take place.

The basketry specimens of the archeological horizon within the Basin Plateau, both twined and coiled, are basically the same with local variations. The same holds true for the few specimens available fro the Columbia Plateau area.

Essentially the Basin and Columbia Plateaus are much the same culturally. Early writers considered these areas to be marginal and the culture of the area to be characterized by transitional Plains culture. However, the more recent studies of the area indicate that although the culture has an overlay of Plains culture it deserves a place of its own.

The basketry of eastern Oregon, especially within the archeological horizon, shows the individuality of the Northern Great Basin and from it on the basis of present stratigraphic studies probably developed the basic twining complex of the Columbia Plateau with the change of climatic

conditions in the Basin and the shift of cultural centers following the influences of westward pressures and Coast influences, the Columbia Plateau developed its distinguishing features.

I have set up a system of basketry classification and have applied it to a study of Oregon basketry both within the historic and archaeological horizons. It has been shown that basketry types are usually standardized within linguistic groups and also that basketry types are similar, with local variations, within a culture area.

The main conclusion which may be drawn from this study is that Oregon should not be considered as an ethnic whole but is divided by the Cascade Mountains into two main culture areas; one consisting of the coastal tribes and the other belonging to the Basin Plateau cultures.

On the basis of the evidence available from a few but diagnostic basketry samples, I believe that Oregon was not a cultural vacuum, an area peripheral to the higher centers of development around it, but prior to the historic period, during which the breakdown of the native cultures was rapid, Oregon was an active participant in and possibly a center of influence for the cultural as well as linguistic diffusion.

## SUMMARY AND CONCLUSIONS

I have set up a system of basketry classification and have applied it to a study of Oregon basketry both within the historic and archeological horizons. It has been shown that basketry types are usually standardized within linguistic groups and also that basketry types are similar, with local variations, within a culture area.

The main conclusion which may be drawn from this study is that Oregon can not be considered as an ethnic whole but is divided by the Cascade Mountains into two main culture areas; one consisting of the coastal tribes and the other belonging to the Basin Plateau cultures.

On the basis of the evidence available from a few but diagnostic basketry traits, I believe that Oregon was not a cultural vacuum, an area peripheral to the higher centers of development around it, but prior to the historic period, during which the breakdown of the native cultures was rapid, Oregon was an active participant in and possibly a center of influence for the coastal as well as interior diffusions.



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