The Araucanian Weaver
by Sister M. Inez Hilger & Margaret Mondloch

Among the Araucanians, women and older girls are the weavers. Small children help with carding, boys and younger girls with spinning, and men with twirling. Things woven are traditional clothing and articles for household use. Such articles are blankets (ponrots), used for protection against cold at night; throws (lamas) used to cover stools and benches; saddlebags (kalke) for carrying things on horseback; and saddle covers (choapinos). (Cf. Plates for these.)

Traditional homespun and home-woven clothing of men and boys are pants (chiripa), poncho (makuu), belt (chamallwe), and headband (trarulagnko). The chiripa is seldom seen today. It consists of a rectangular cloth, known as chamall, which is draped around the waistline, kilt-fashion, secured there with a belt, drawn forward between the legs from behind and tucked under the belt in front. The poncho, belt, and headband are worn today. Rarely is a man seen without a poncho; a poncho sheds rain, resists winds, and conserves body heat.

The traditional clothing of women and girls is a dress (kenam), a shawl (itilla), a belt (trarilwe), decidedly shorter than for men, and a headband (trarulagnko). The kenam is a chamall wrap-around. An unmarried girl pins the upper corners of hers over both shoulders; a married woman, over one shoulder only. It is secured at the waist.

(1) The Araucanians in Chile live mainly on the Coastal Range and in the valleys of the Andes, in the provinces of Cautin and Valdivia, between 30 and 40 degrees south latitude. This is within their pre-Columbian habitat. They are a people that were never conquered. They fought the Spanish army from its penetration into their country, and later the Chilenans, until the last half of the 19th century. They call themselves Mapuche (People of the Land); the literature calls them Araucanians (probably named for the araucaria, Dombeya chilenisf, a tree in the area). Culturally they are—and were in pre-Spanish contact days—an agricultural people; today they raise cattle and sheep also. Linguistically they are a distinct family—their language is classified as Araucanian. They are a proud, independent, intelligent, courteous people.

The account of the present paper was collected by my field assistant, Margaret Mondloch, and myself while we were among the Araucanians making an ethnographic study of child life. We were in residence among them in Chile in 1946-1947, and in Chile and Argentina in 1951-1952. A complete report of our work is found in Araucanian Child Life and Its Cultural Background. Smithsonian Miscellaneous Collections, Volume 133 (1957). Pages 226-234 and 337-380 of the volume give additional information on weaving. Our field work was made possible by grants from the American Philosophical Society (Grants No. 805 and 1341, Penrose Fund), from the Wenner-Gren Foundation for Anthropological Research, and a subsidy from my brother, the late William P. Hilger.
with a belt, and then bloused. The kepam and ikülla are always woven of black yarn.

There are four wool-bearing animals native to South America, namely the llama, the alpaca, the vicuña, and the guanaco. According to our informants, of these only the wool of the guanaco was used by the Araucanians, and its use diminished when the Spanish introduced sheep. Only sheep's wool is used today. According to Cooper's sources, however, weaving with llama wool was well developed among the Araucanians in pre-Columbian days, and llamas were bred for the use of their wool. (Cf. Cooper, John M., The Araucanians In Handbook of South American Indians, Bureau of American Ethnology Bulletin 145, 2:703 and 713). We saw Quechua and Aymara in Peru and Bolivia—tribes once traders with the Araucanians—spinning llama wool in 1947. Today sheep's wool is the staple for weaving among the Araucanians.

Shearing sheep is a family affair. Several days before shearing, women pour a decoction of canelo leaves (Drimys winteri) on each sheep while men work the decoction vigorously into the wool with their hands. The decoction along with the oil of the wool serves as a deterrent and thoroughly cleanses the wool. To prevent a disease that causes sheep to shed their wool, sheep are periodically washed with water mixed with human urine. Both men and women shear sheep.

During our stay among the Araucanians, wool was seen on fences of nearly every household. When a woman wished to prepare some of it for weaving, she took the amount she needed, dined it into boiling water, or poured boiling water over it, and then hurried to a brook or river where she worked it well with her hands. The water being cold caused the wool to shrink. Next, she repeatedly pulled the mass apart in all directions and swished in back and forth in the water vigorously to clear it of seeds, burrs, bits of wood, and other foreign substances. After this, she spread it on fences to dry thoroughly in sun and wind. Then it was hung onendsWith the ruka (dwelling) and kept there for a day or two. It is now ready to be carded. There is no carding implement. Women and children of all ages disentangle the wool, fluff it by hand, and make of it soft wads. Any foreign substances left in the wool are now removed by hand. Preparatory to its being spun, a wad is elongated so that it can be wound about the spinner's forearm and wrist (cf. Plate 1, 1). Women, girls, and pre-adolescent boys are spinners; men rarely help with spinning.

The spindle (nimkan) is a rounded, smoothed piece of wood slightly grooved near the upper end, and weighted with a whorl (nishoi) near the lower end (cf. Plate 1, 1). Spindles, in use during our study, varied in length between 16 and 21 inches; their whorls measured 3/4 inch in thickness and one to two inches in diameter. Whorls were either trapezoidal, discoid, or circular in shape, and undecorated. Whorls give balance to the spindle and steadiness to the whirling motions of twirling. All whorls that came under our observation hand beed made of pottery substances.

An occasional spinner stands or walks when spinning, but generally she is seated on the ground or on a low bench. Around her
left forearm and wrist she has wound loosely the elongated wool. She holds the spindle, casually in her right hand, with whorl end resting on the ground. (*) With thumb and index finger of both hands she pulls some of the wool forward into a desired thickness and long enough to reach the spindle. When doing this, she twists it slightly, as though spinning it with her hands, fastens the end near the spindle with a slipknot in the groove of the upper end of the spindle, sets the spindle in motion by giving it a twist, releases it, and sends it rotating in midair. —We noticed all spinners did so anticlockwise.— This part of the wool is now yarn. Next she undoas the slipknot, rotates the spindle like before, in midair, and by so doing winds the newly spun strand of yarn on to the spindle. She secures it there, in the upper groove, with a slipknot. This total process is repeated until she has spun the desired amount of yarn. Women were seen spinning several spindlesful.

The yarn is next twirled. If it is intended for a chamal (cf. Plate 1, 5), only a single strand will be twirled; if it is intended for a poncho (cf. Plate 1, 4), two singles will be twirled. Since a noncho must be rain and wind resistant, its yarn must be twirled firmly: that for a chamal must be finer and less firm. If the yarn is to be used for saddlebags, saddle covers, throws or blankets, it will be twirled of two singles, rather loosely. As previously stated, men usually assist in twirling: so do older boys and girls. (For saddlebags, see Plate 3, 5 & 6; for saddle cover, Plate 1, 6; for throws, Plate 2, 4, 5, 6, 7; for blankets, Plate 2, and Plate 3.)

Preparatory to twirling two strands of yarn, the person unrolls several feet of yarn from each of two spindles and secures each by a slipknot in the groove at the upper end of its spindle. He takes a portion at the end of one of these strands, rolls it over hand, fingerwise, several times, and then holds the end between his teeth to keep it from unrolling. He deals with the end of the strand of the second spindle in the same manner. Both spindles have been resting on the ground. He brings the two ends of strands together, now, holds them firmly with his fingers, and suspends the spindles in midair. Here they rotate, twirling their strands into one. Should he want the strands more tightly twirled, he again rests the spindles on the ground, relaxes them somewhat, and then suspends them again in midair, letting them rotate there. The twirled yarn is now wound on a separate spindle, and the process of twirling is continued as before. Durability of woven articles depends to a very large degree on the twirling of the strands of yarn used in its weaving, said a woman. “If I want very fine yarn, I twirl only one strand. I twirled a single strand three times to make this yarn thin and

(2) According to O’Neale the method used by Araucanians in spinning is the Bacaírî method, a method by which the spindle is held in a vertical position in contrast to the older Bororo method in which the spindle is rotated while in a more or less horizontal position. The Bacaírî spindle is known as the Andean drop spindle: Aymara and Quechua use it also. The Bacaírî method is known to have a wide distribution among South American Indians. (O’Neale, Lila M. Weaving. In Handbook of South American Indians, Bureau of American Ethnology Bulletin 143, 5:100).
fine and strong. I shall weave a chamal dress of it for myself." Twirled yarn is wound into a ball and stored until the weaver is ready to dye it. Nearly every household we visited had balls of yarn hanging off pegs. Children, and older persons too, were seen making balls of yarn off a spindle while holding the whorl end of the spindle between toes of one foot. When time comes that dyed yarn is needed, balls are unwound and made into skeins of an arm’s length. Wool is dyed in skeins.

White, grey, tan, brown, and black wool is used in its natural colors. Of these white and tan take dyes. Traditional dyes are extracted from earth and from flowers, leaves, barks, and roots of native plants. In recent times commercial (aniline) dyes were introduced. Favorite commercial dyes are ones that give high colors, such as red, orange, and green; there are no native dyes that can equal these in brightness. Among favorite plant colors are various shades of orange and yellow obtained from bark of michai (Barberis vulgaris). "I can produce seven different shades of yellow and orange. They make pretty stripes in lamas, and one can make attractive designs in chapinos with them, too," said a woman. "We can dye several shades of brown, too." If dark brown is desired, bark of aged ulmo trees (Eucryphia cordifolia) is used; if light brown, bark of young ulmo. The root of chakaiwa (Barberis darwinii) dyes yarn black. So does earth found in certain localities. A favorite color for ponchos is plomo, a color which is lead-grey or silver-grey; both can be obtained from twigs of chakaiwa, twigs of fuscia (Fuschia macrostemma), roots of nalca (Gunnera scabra), and bark of olivillo (Aextoxicon punctatum).

All dyeing that came under our observation was done by boiling skeins and dye-giving substances together. However, informants had also dyed in a solution of dye made by boiling dye-giving substances in water and then boiling skeins in this. Yarn dyed black in an olla (potlike pottery used for cooking) keeps its dye always: if dyed in an iron kettle, it fades out with time. Formerly all yarn was dyed in ollas: today all, except black, are dyed in iron kettles (cf. Plate 1, 2). One informant, while dyeing yarn to use in weaving a saddle cover, explained: "I need some yellow yarn; so I dye yarn with these chopped up roots of michai. I chopped them up small so as to get out of them all of the dye that is in them. I always boil the yarn and whatever I use for color together. If this yellow does not turn out to be a bright yellow, I shall add leaves of canelo: canelo leaves not only brighten yellow, but also prevent the color from fading. When I want to dye yarn red or green, I use commercial dyes. We have no plants that produce these colors. When I dye red, I boil the yarn and canelo leaves together first, and then I boil the yarn in a solution of water and red dye. When I dye green, I boil the yarn with leaves of laurel común (Laurus nobilis) first, and then in the dissolved green dye. Doing it this way brightens the colors: they do not easily fade either. If you want dark shades of any color, boil the yarn in the colored solution a long time —the longer the yarn boiled in the dye, the deeper the color will be."

Native dyes are set in two traditional ways; both using putrid human urine as mordant. By one method skeins are lifted
from the dye, urine added to the dye, and the mixture brought to a boil. Skeins are then returned to the solution and again boiled. By the other method, a mixture of earth and urine are added to the dye in which skeins are boiling. Commercial dyes are set by boiling skeins in clear water in which alum has been dissolved. When colors have been set, skeins are hung on pegs in the ruka to dry; drying them in the open would jeopardize colors.

Argentine weavers were using a method for bleaching light-colored yarn to a white — “it will become whiter than snow” — a color called luva. Once so bleached it will take no dye. Strands of the length needed for a design were measured off and each wound in single layer around a stick or leaf, and then stored with a few handfuls of white clay known as mallo. “I saw my grandmother do this to yarn spun of guanaco wool, and also of sheep’s wool,” said an old informant. “She wanted to make a pretty design in a choapino she was making for my grandfather.” Our informant was using this method in 1951.

Weaving is done on a loom (clou), a rectangular, adjustable wooden frame (cf. Plate 1, 3 & 6). To two horizontal beams (kelo), smoothed on all sides, two upright poles (witralwitral) are tied. The position of the poles depends on measurements of the article to be woven. Beams and poles are of wood which does not splinter easily, such as raulli (Notofagus procera). Tying is done with anything near at hand, probably leather thongs, pieces of vine, strong twirled yarn. Swords, heddles, and bobbins must be of light-weight wood, wood that does not easily splinter. Informants were using wood of wild apple (Purús malus), chiñ chiñ (Azara microphylla), and luma (Myrtus luma). One weaver (cf. Plate 1, 6) weaving a saddle cover (1946) used seven swords of varying lengths and widths; each approximately one-half inch in thickness. One side of each sword was flat; the other, convex; all had ends pointed. Two large ones used in beating down the woof were 29x3 and 18x1 1/2 inches. Toward the end of the weaving, she removed the heddle and picked up alternate strands of warp with five smaller ones. Pointing at her many shuttles, each filled with yarn of a different color, she remarked that she needed all of them because she was making designs of many colors. Both woof and warp are yarn.

The weaver sits while weaving, with loom tilted slightly away from herself (cf. Plate 1, 3). Weaving is done from bottom upwards. As her weaving progresses, the woman rolls the woven part on to the lower beam and lets down the upper beam. When she has nearly completed her weaving, she reverses the position of her weaving and proceeds to weave again from bottom upwards until woven parts meet. (Cf. Plate 2, 3 & 8). Looms are stretched horizontally when weaving belts and headbands.

In general, today, designs are crosses, squares, triangles, zigzags, checkerboards. According to our informants, designs have no significance nor symbolism, but in less intricate designs there may be a representation of the tail of a bird or the movement of a worm (cf. Plate 2, 6). Our informants did not recall having heard at any time that Araucanians used stylized living forms or abstractions of life forms, such as the Quechua and Aymara Indian weavers use.
(Designs in blankets shown on Plate 2, 1 and 2 seem to approach conventionalized plant designs. These were so made at the request of a European woman.) No two designs are alike. An experienced eye can quickly find Araucanian-woven articles among those woven by other South American Indians, because of the similarities in their designs. (*) Each weaver thinks out her own design.

Chamall, shawls and ponchos are usually of one color; an occasional poncho has a line or two of simple geometric design (cf. Plate 1, 4). Often belts, throws, and blankets have a stripe or two running lengthwise. Saddle covers and saddlebags usually have varying geometric motifs in harmonious coloring (cf. Plate 1, 6 & Plate 3, 5 & 8). In intricate designs the woof is intertwined between threads of warp, either with fingers or by small shuttles; each thread is pulled through the foundation and tied with a knot, a method known as pile technique.

Every woven article is for a specific purpose. Individual measurements for clothing are suited to the person for whom the clothing is intended. Measuring tapes are pieces of yarn; knots in these indicate measurements to be used. Blankets are of standard widths, the length of each depending on the height of the person who is to use it. Throws and saddle covers approximate standard measurements. Measurements are handstretches. (*) A woman had just completed two saddle covers. One had nine inches of fringes at one end and 11 at the other, with 22 inches of design between them. A second had fringes of nine and of ten inches, with 23 inches of design.

The following relates observations we made on the Coastal Range of Chile in 1946 while a woman wove a saddle cover. (cf. Plate 1, 6). Portions of it she wove by the pile technique, using an extra set of short yarns to form raised loops. When she had completed her weaving, she sheared several tufts that were of uneven length.

An Alepúe woman in setting up her loom leaned two 8-foot saplings against a fence near her ruka, and tied a 4-foot beam close to the top of these and another of the same length close to the bottom. She used heavy twirled yarn for tying, but could have used thongs or voqui, she noted. She then sent a child to fetch a nearby quila pole and with it measured the distance between the beams on the pole at her right. She marked the measure on the quila pole with a (3) A sample of Araucanian design in weaving is shown in Figure 43, p. 202, Latcham, Ricardo, E., La Prehistoria Chilena (Santiago, Chile, 1928). See also Latcham, Ricardo, E., Ethnology of the Araucanians. In Journal of the Royal Anthropological Institute, Volume 39 (London, 1909): pp. 334-339, for notations on early Araucanian spinning and weaving; for influences of Inca invasion on Araucanian spinning and weaving; for introduction by Inca of llama and vicuña; for clothing of Araucanians in pre- and post Inca invasion days.

(4) Regarding measurements of woven articles. O'Neale says that the majority of South American weavings have one feature in common, each is individually woven to desired size. She notes that from ancient to conquest times there is no evidence of cutting down a woven length. (Ibid. 5:108).
finger moistened with saliva. Then she measured off the same distance on the upright pole at her left, and adjusted the upper beam to equalize the distances between the beams on both poles. She was now ready to stretch the warp to weave a choapino. She tied together the ends of two balls of white yarn and fastened the combined ends to the lower beam at the right. Then, to provide for even- and odd-numbered strands, she passed one ball under the lower beam (clockwise) and over the upper beam (anticlockwise), dropped it, and did the same with the second ball. She continued this operation, alternating the balls, until she had sufficient warp. She now spread the strands into the positions in which she wanted them when she began to weave. To make certain that the width of the spread was what she wanted, she measured it with hand stretches. She counted the strands, and remarked, “I have here 120 double strands: 120 even ones and 120 odd ones. It will probably take two kilos of wool to weave this choapino.” (A choapino is not unlike a hooked rug.) She next twirled sufficient yarn slightly to make a soft cord. With it she fastened the heddle to the odd strands by passing it around the heddle and then around a strand. Then she inserted a sword above the heddle so that all even-numbered strands were on one side and all odd-numbered ones on the other and pushed the sword upward a little. This was done to give some tautness to the strands. She used another sword to beat down the woof while weaving.

She now filled a shuttle by winding a strand of the yarn a few times around one end of it, then moving directly to the other end and winding it around that end several times, and from then on moving back and forth from end to end until she thought the shuttle still light enough in weight to be shot through the sheds without difficulty; at this point she wound the yarn around one end of the shuttle several times and severed the strand from the bail by tearing it. She filled several shuttles in the same manner, then wove a rather loose foundation by the ordinary weaving technique. This done, she worked short pieces of yarn down and back between woof and warp, and tied each one. She had cut these short pieces from skeins she had dyed in various colors. As she worked, she selected the color that filled in a design she was working out — “the design is in my mind; you will see it when I have made it.” (Plate 1, 6 shows the design and completed choapino.) Choapino usually have overlapping rows of fringes on both ends, which are generally of the same color as the foundation into which the design is worked, that is, either white or brown. They are also separate pieces of yarn, but are decidedly longer than those used in the design. Proportions are usually 22 inches of a design and 11 inches of fringe at each end. (Hilger; Ibid. 133:232-233.) Today weaving is also done for barter. Stores owned by Chileans often buy woven articles or exchange them for commodities, such as sugar and alum and dyes. Travellers and non-Araucanian workers in the area buy them also.
Plate 1.

1. School girl spinning.
2. Removing skein of yarn from dye.
3. Adolescent girl weaving blanket (pontro).
4. Man wearing poncho (makuñ).
5. Woman wearing dress of chamal (kepam) and home-woven belt (trarüwe).
6. Weaver showing saddle cover (choapino) woven by her.

Plate 2.

(Articles shown in plates were woven of varied colors in pleasing harmony.)

1 & 2. Each a double blanket (pontro), made at the request of a European woman; probably not a true Araucanian design.

3 & 8. Blankets (pontros) showing section where weaving met.

4, 5, 6 & 7. Throws (lamas) 4 & 5, of simple type: “We make these when we are tired.” 6 & 7, with fringes and more elaborate design.

(6 & 7 were photographed by us in 1951 through courtesy of Lisa Pfister. All others, through courtesy of Bertha Ilg-Koessler in whose collection they are found. Both women live in San Martin de los Andes, Argentina.)

Plate 3.

1, 2, 3, & 4. Blankets (pontros) of varying designs.
5 & 8. Saddlebags (kalkea).
6, a. Belt for women (trarüwe); 6, b & 6, c. belts for men (chamallwe).
7. Detail of woven blanket.

(Blankets and saddlebags were photographed by us in 1951 with permission of Bertha Ilg-Koessler in whose collection they are found. Belts shown in 6 are found in the collections of the Intendencia de Parque Nacional de Lanín, San Martin de los Andes, Argentina.)
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