



WEAVERS OF THE JADE NEEDLE

TEXTILES OF HIGHLAND GUATEMALA

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and varied—doubtless a result of the political heterogeneity in the highlands. All highland calendars divided the 365-day year into 18 months of 20 days each, plus a five-day period at the year's end. A cycle of 13 numbers ran simultaneously with the year to produce a 260-day period. Here the similarities end, however, for the day names differ, the year beginnings differ, and the calendar beginnings themselves occur in a wide range of years—from around A.D. 900 to as late as A.D. 1493.

The third and last Mexican influx came between A.D. 1000 and 1200. Probably a heterogeneous combination of Mixtecas, Pueblas, and Toltecs, these Nahuatl and Nahuatl speakers imposed still another set of new traits. The old theocratic government became a government of warriors and merchants and was headed by joint rulers from two different families. The previously homogeneous folk society was shattered, to be replaced by small regional kingdoms, complete with kings, capitals, and magnificent religious centers. The new people taught the highlanders to cremate, rather than bury, their dead. They introduced war cults, sun god cults, and sacred bundle cults, a new kind of ball court, and new religious equipment, such as copper bells. Caves became shrines in which idols were worshipped, an activity that may have included veneration of human trophy heads. New architectural features—round temples, twin temples (one for each ruler), colonnades, and small altars centered in the plazas—were all devoted to the glories of such Mexican gods as Quetzalcoatl, Xolotl, Tlaloc, and Xipe-Totec. Regular trade with Mexico, on established inland and water routes, was reinstated for importation of luxuries—turquoise, gold and copper ornaments, and metal tools. Metal working—in gold, silver, copper, and tin—was introduced. Less pleasant were the introduction of torturing of war captives and the intense warfare that resulted from constant expansion by competing groups lusting after the prime salt, cotton, cacao, obsidian, jade, and copper areas.

Thus when the Spanish marched in to capture Guatemala in 1524, they were but new faces in a long line of *conquistadores*. Again, there were changes. In the lowlands and on the lower mountain slopes, where sugar cane, bananas, cacao, coffee, and other cash crops could be raised, the hacienda system tore apart the old social structure. New crops, new agricultural implements, new domestic animals, and a new religion were introduced. In some areas, the results were so drastic that all traces of Indian culture were erased. As in the previous invasions, however, rural life was little disturbed.

Today, many of the small villages remain almost entirely self-sufficient, both economically and socially. A large percentage (nearly 80%) of the highland population are monolingual speakers of one of the 20 or so Mayan languages—languages exhibiting roughly the same degree of differentiation as the Romance languages. The settlement patterns established 1100 years ago, with the second Mexican invasion, still hold. Indians are still rural, foreigners and people of mixed ancestry still urban. Indian villages are still located in the highlands (1500 to 2800 m.—4921 to 9186 ft.). The big towns and plantations are still located in the low valleys and on the lower mountain slopes (350 to 1500 m.—1148 to 4921 ft.).

Nor has the pattern of weekly markets—an ancient tradition—disintegrated. Extreme differences in elevation, topography, soils, and rainfall result in a great diversity in plant and animal life, a diversity that, in turn, leads to regional specializations. One village is particularly suited to onion raising, another specializes in pottery, a third has access to volcanic lava—the prized raw material for metates and manos. Market days rotate from village to village in a regular cycle. Although some large towns support daily markets, most villages have only one a week. On market days plazas that are normally vacant and silent flood with people, noise, and color. Vendors of similar goods locate

together in the plaza, an arrangement that has apparently remained stable for hundreds of years. At a big market one might find metates from Nahualá, slaked lime from San Francisco el Alto, salt from Sacapulas, pine furniture and pottery from Totonicapán, *ocote* (pitch pine splints for torches), apples, and peaches from Chichicastenango, copal incense from Santa María Chiquimula, firewood from San José Chacayá, maize from Santiago Atitlán, beans and anise from San Antonio Palopó, chickpeas from San Pedro la Laguna, potatoes from San Martín Sacatepéquez, oranges from Lake Atitlán, avocados from Concepción, garlic and onions from Panajachel, huipil cloth and skirt lengths from Quezaltenango or the mills at Cantél, woolens from Momostenango, palm leaf rain-capes from San Sebastián Retalhuleu, palm hats from Santa Cruz Quiché, and decorated calabashes from Rabinal. Goods from the lowlands—coffee beans, chocolate, dried chili, sugar, bananas, coconuts, pineapples, papayas, and manioc—are often brought to highland markets. Livestock, from horses and cattle to iguanas, is sold at the market, though usually quartered 50 or 100 yards away from the vendors' stalls. It is common on market days to see merchants driving herds of little pigs, each on a separate lead, squealing through the streets. The vitality of the highland markets is in large part responsible for the continuing vitality of highland crafts.

Another institution that prevents disintegration of the highland culture is the *cofradía* system. Once widespread throughout Central America, the *cofradía* is now fading in some areas. A blend of political and religious responsibilities, *cofradía* service is expected of every man in the community. *Cofradía* members are responsible for meting out justice within the community and for dealing with the outside world on behalf of the community. They must also care for the saints of the Catholic church, maintain the church buildings, and celebrate the saints' days with elaborate feasts and ceremonies. Because duties and responsibilities increase with each upward step in the *cofradía* system, a man who reaches the highly respected office of *alcalde* has invested heavily in his own and his family's time and money.

TEXTILES

The damp climate of Guatemala and Yucatan has allowed preservation of almost no ancient textiles. Most of the surviving fragments are from the Sacred Cenote at Chichén Itzá, a site in the lowlands. The sample is small, but the weaves are amazingly varied. Plain weaves (including warp and weft stripes, plaids, and tapestry), floats (four types of twills), crossed-warp (gauze), and compound weaves (weft pile, brocade) are represented.

No complete costumes have survived, but garment types can be deduced from sculptures, figurines, painted pottery, murals, and codices. Attire for important males included loincloths, short kilts, long skirts, shirts, fringed belts, shoulder capes, ankle-length mantles, leather sandals, and elaborate headdresses. Commoners probably wore much simpler clothing. Women dressed in long skirts, long and short huipils, wide girdles, and rebozos.

Except for such recently introduced elements as Roman alphabet letters and German/French embroidery motifs, the origins of specific decorative devices are obscure—hardly surprising when the bombardment of foreign influences over the last 26 centuries is considered. Whatever their origin, design elements—as well as colors and garment style—signal to all other highlanders the wearer's

home village, marital status, social standing, and sometimes, even the wearer's fertility. In Chichicastenango, girls wear their *refajos* above the knee, young married women wear them at the knee, and women beyond the childbearing age drop the *refajo* length to mid-calf. Nebaj widows who have remained faithful to their dead husbands' memories replace the traditional red and yellow *refajo* with one of blue and white stripes. A girl of Olinstepeque announces to the village her willingness to marry by donning a dark blue *huipil* striped in magenta silk and a tightly wrapped *refajo* of dark blue and white stripes and striding purposefully down the village street.

Many of today's men wear clothes patterned after those of 16th and 17th century Spanish *conquistadores*. A *chaqueta* (coat) of heavy white or dark wool or colored cotton is worn above *pantalones* (trousers) of white cotton or black, blue, or brown wool to match the coat. A *cinturon*, *banda*, or *cincho* (belt or sash), often of bright color and intricate weave, holds up the *pantalones*. Worn apron- or kilt-like over the *pantalones* is a garment that has survived from antiquity, now woven of wool and called by one of several Spanish terms, such as *rodillera* or *ponchito*. Men have replaced the old *huipil*-type upper garment with a sleeved *camisa* (shirt). In some villages men wear capes, ranging from knee- to ground-sweeping length. Village-made *sandalías* or purchased *zapatos* are worn on the feet. A woven, knitted, or netted shoulder bag, called variously *guangocha*, *morral*, *bolsa*, *matate*, *red*, is almost universally carried by men. To protect the head, men wear *sombreros* or handwoven cloths of many uses, called *tzutes*, or both at the same time. During the rainy season, May to November, no man leaves home without his *zuyacal*, the palm-leaf raincape, or, now, a large square of plastic.

Women's clothes have changed less than men's in the centuries since European conquest. Women still wear *refajos*, short or long skirts, pleated, gathered, or wrapped, which they buy from commercial weavers in standard lengths (*cortes*). Near the Mexican border, women may wear *blusas*, but the *huipil*, in lengths varying from rib cage to ankle, is predominant in the highlands. Over their *huipiles* women may wear over-*huipiles* or shawls (*perraje*, *tapado*, *rebozo*). Belts (*faja*, *ceñidor*) may be narrow or wide, may be plain or highly ornamented, and may terminate in a self or macramed fringe or in added loops and tassels. Hair ornaments and coverings range from *servilletas* and *huipiles* folded and worn on the head through lengths of colored wool yarn or thin silk ribbons braided into the hair to long stiff ribbons spiraled around the head to produce massive headdresses. The more elaborate counterparts of the everyday hair ornaments (*tocoyal*, *tupui*, *cinta*) are normally worn only by high status women on ceremonial occasions. Women wear shoes (*zapatos*, *caites*, *sandalías*) less frequently than men, usually going barefoot.

Tzutes and *servilletas*, which serve numerous purposes, are distinguished by color and by function. *Servilletas* are usually woven with a white background. The color of *tzutes* is determined by village tradition. Although both may be used for carrying babies, food, and other burdens, for covering food, or worn on the head, around the neck, or over the shoulders, the *tzut* is reserved for ceremonial purposes.

The dyes most frequently used now are aniline package dyes, although many weavers use pre-dyed machine-spun yarns. A few natural dyes were still in use 30 to 40 years ago. Two blacks (for wool) were used, one consisting of logwood and copper, the other of pulverized

mesquite pods, brazil wood, logwood, organ cactus, and ferrous sulphate. Both cotton and wool were dyed with indigo, sometimes mixed with an aniline blue. Cochineal, mordanted with limes and stannous chloride, produced reds and purples. Brazilwood and chrome yielded purple, as did dyeing in cochineal and indigo—approximations of the now-vanished purple extracted from the shellfish *Purpura patula*. Fustic and Palo amarillo—and probably many other plants—were used for yellows and oranges. Browns were produced with alder bark, post-mordanted in cold water and wood ashes, and with shredded logwood and brazilwood, post-mordanted with copper.

Several kinds of looms are in use in Guatemala today. The loom of the ancients, the backstrap, is used by village women, who ordinarily weave their own *huipiles*, *servilletas*, and *tzutes*. Men weave maguey bags on a backstrap or another old style loom, the vertical loom similar to those of Peru, Mexico, and the Southwest. Belt and ribbon looms, used by both men and women, consist of an ingenious combination of the European treadle loom and the backstrap. European looms, both standard treadle and drawlooms using up to 100 harnesses, are employed almost exclusively by men, whether at home or in small factories. On these are woven yard goods and nearly all the skirt lengths worn by highland women. Fly-shuttle and jacquard looms are restricted to large commercial operations.

BACKSTRAP LOOM

Winding the warp:

1. The number of warps per inch can be determined by wrapping a length of warp around a 1-inch section of a ruler (Fig. 1). The turns are made as close together as possible without overlapping. The number of warps per inch is derived by counting the number of threads visible on one face of the ruler.

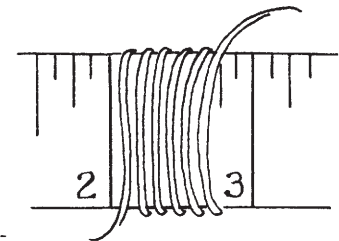


Fig. 1. Figuring warps per inch.

2. A warping board (Fig. 2) can be used to make the continuous warp. The board should be of hardwood, about 2" thick. The pegs, hardwood dowels 1" in diameter by 6–8" long, should be sunk through the entire thickness of the board and glued securely.

A loop is made in one end of the warp yarn and cast over peg *a*. The ball of warp yarn is then carried around the number of pegs necessary to achieve the required length. The cross is made between pegs *b* and *c*. When different colors are

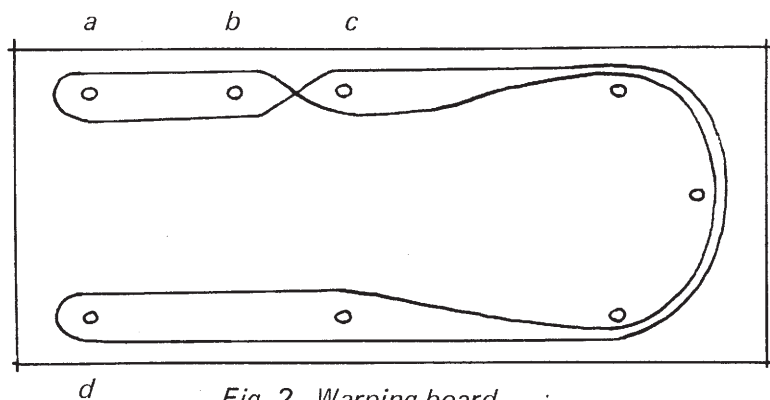


Fig. 2. Warping board.

used, the new yarns are tied in at the ends of the warp (pegs *a* and *d*).

A simpler method of warping is to drive two stakes in the ground at the desired warp length. The ball of warp yarn is carried back and forth between the stakes in figure-8 fashion, crossing between the stakes.

The cross (or lease) must be carefully maintained throughout the warping and loom-dressing process. It serves to keep the yarns in order, and, later, to produce the sheds.

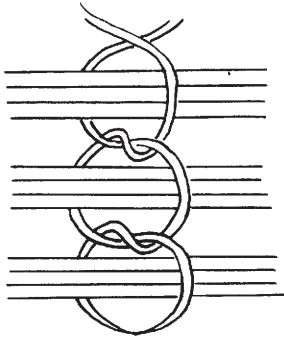


Fig. 3. Tally string.

3. As winding progresses, counting is simplified if the warps required for each inch are segregated by means of a "tally" string (of a color different from the warp) tied in a single knot around each group (Fig. 3). The tally string may be tied at any point along the warp.

4. When winding is completed, strings are tied through the cross (lease) and around the entire warp at 24 or 36-inch intervals.

5. Once tied, the warp is lifted carefully off the warping board and chained. Chaining, which is exactly like chain crocheting, except that the hand substitutes for the crochet hook, keeps the warps from tangling until the cloth and warp beams are inserted. Instead of chaining, the warp can also be wrapped carefully in a loose ball or around a stick.

6. The tally string is removed.

Dressing the loom:

1. To set up the loom (Fig. 4), one of the warp ties is loosened and re-tied to allow the warp to spread out to its full width. A new length of yarn, extending well beyond the warp at both sides, is run through the loops. This will serve as the tie-down cord. Using a ball of heavy cotton or linen cord for lashing, the weaver makes several secure half-hitches or clove hitches (Fig. 5) around the tie-down cord and a rod about 1" in diameter. This rod, which will become the warp beam, is placed adjacent to and outside the warp loops (see Figs. 4 and 6). The ball of cord is then carried around the warp beam, over the tie-down cord, and through the warp loops at equal intervals (Fig. 6). The intervals are determined by the weight of the warp yarn.

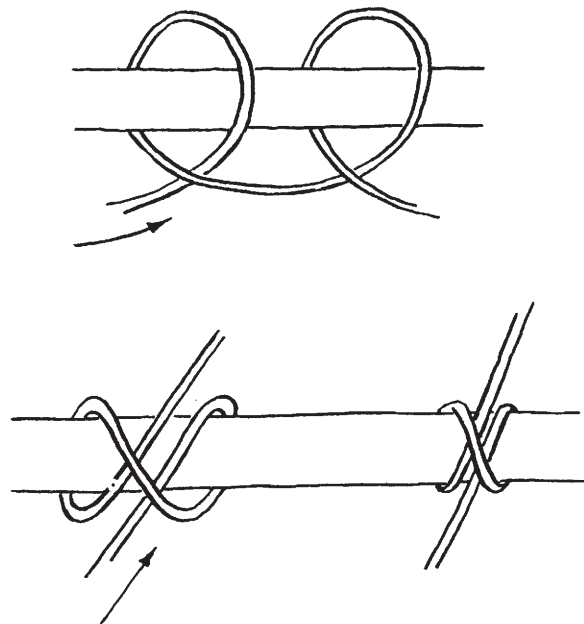


Fig. 5. Half-hitches and clove hitches.

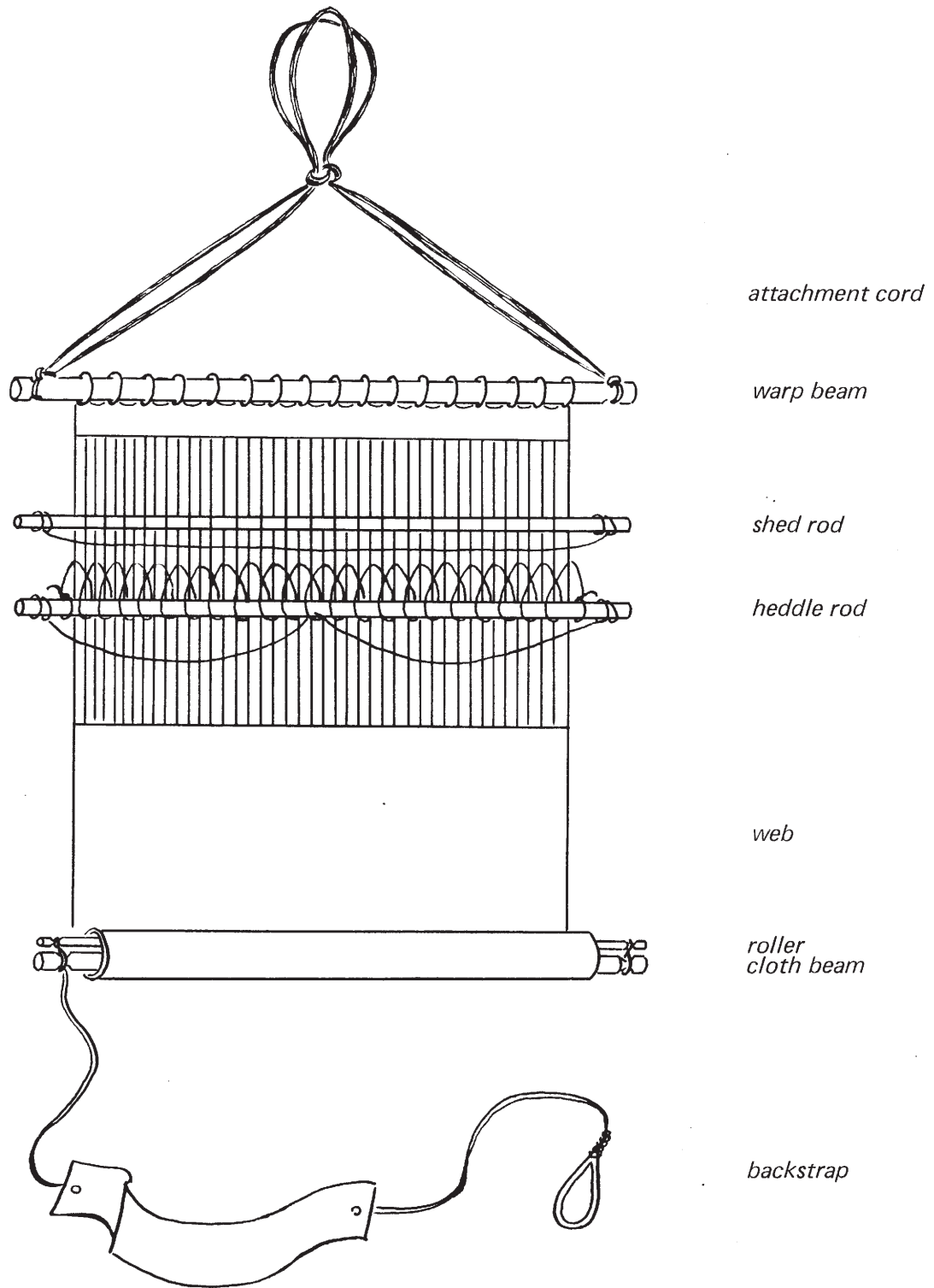


Fig. 4. Backstrap loom.

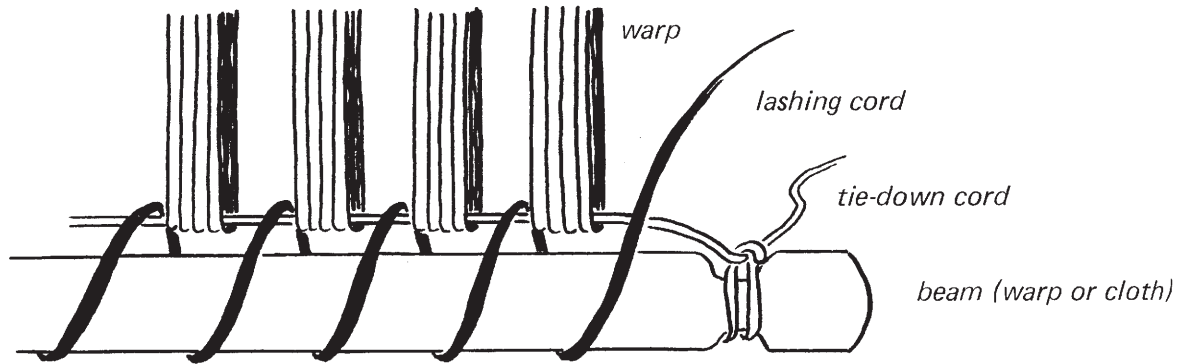


Fig. 6. Attaching warp to beams.

Fine warp may require a $\frac{1}{4}$ inch interval, but a $\frac{3}{4}$ inch or even an inch interval may be adequate for heavier warp yarn. A clove hitch or half-hitches again secure the tie-down yarn at the other end.

2. A cord tied as in Fig. 4 is fastened to the warp beam, the ends of which can be grooved to prevent the cord from slipping off. The loom is then fastened to a stationary object.

3. The warp tie nearest the weaver is loosened and Step 1 is repeated. The pole to which this end of the warp is secured is called the cloth beam.

4. The belt that passes around the weaver's back (Fig. 4) is attached to the cloth beam. Getting in and out of the loom is much simpler if one end of the belt can be unfastened.

5. Two thin rods (lease sticks) are slipped into the two opposing sheds at the cross (Fig. 7). They are tied together so they cannot fall out. The string that secured the cross may now be removed.

6. The heddle rod and heddle string are inserted next (Fig. 8). A batten is inserted below the bottom lease stick and turned sideways to open the shed. Alternate warps have now been lifted by the batten. (These instructions are for plain weave. For

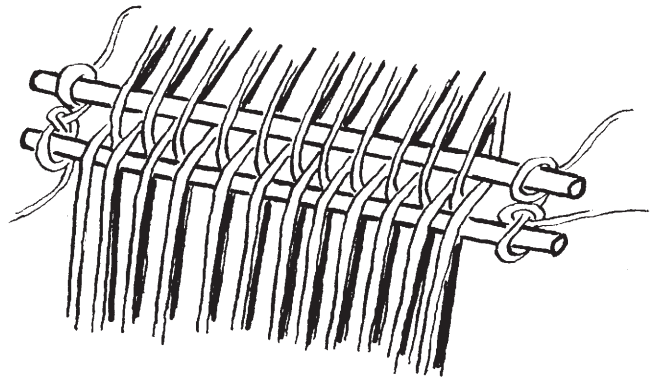


Fig. 7. Tying the lease sticks through the cross.

twill, the heddles are made every 3rd, 4th, 5th warp, etc.) A ball of strong, tightly spun cotton or linen yarn is made ready to serve as the heddle string. One end of the yarn is carried from left to right inside the shed. A strong but slender rod (the heddle rod) is held in front of the warp. The heddle string is fastened to the right end of the heddle rod in a loop knot, the ball of heddle string remaining at the weaver's left.

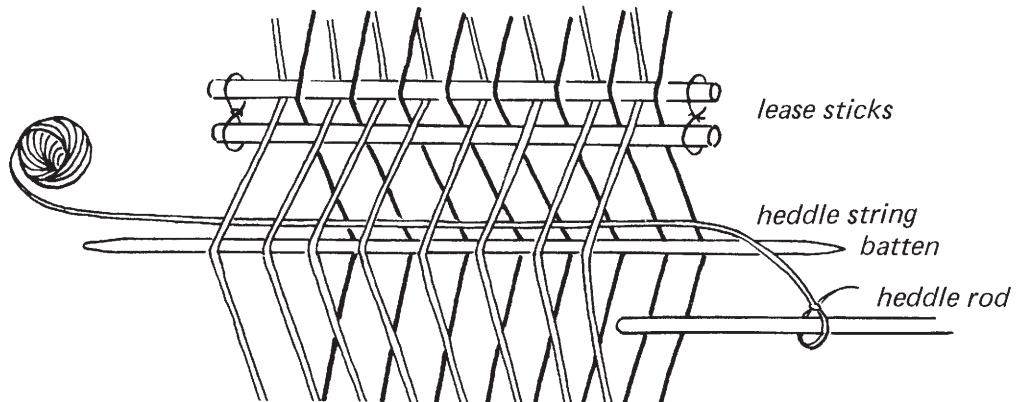


Fig. 8. Preparation for making the heddles.

The heddles are made as in Fig. 9. Heddle loops should be at least 2 or 3 inches long to allow opening the shed. The final heddle is tied in a loop knot.

7. A string is half-hitched around one end of the heddle rod, run through the center heddle loop, and half-hitched around the other end of the heddle rod. This prevents the heddle rod from falling out of the heddles.

8. The lower lease stick is removed. A string is half-hitched at each end of the upper lease stick, which remains in the opposite shed. This becomes the shed rod.

Weaving:

1. One or more bobbins are wound before weaving begins (Fig. 10). On the slender bobbin stick at least as long as the web is wide, the weft yarn is wound figure-8 style. Several turns are taken around the upper end. The yarn is drawn downward in a spiral to the lower end, where several turns are made. The yarn is drawn upward again in a spiral and several turns made just below the first winds. The loaded bobbin is of even thickness from top to bottom to prevent the yarn's catching on the warps and slipping off the end.

2. Weaving begins at the warp beam end of the loom. With the left hand, the heddle rod is pulled forward, raising one-half the warps. It may be necessary to flick the batten or the fingers across the warps to cause them to separate.

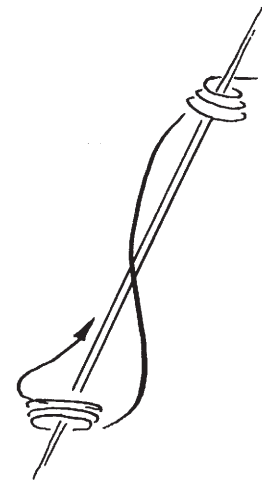


Fig. 10. Winding the bobbin.

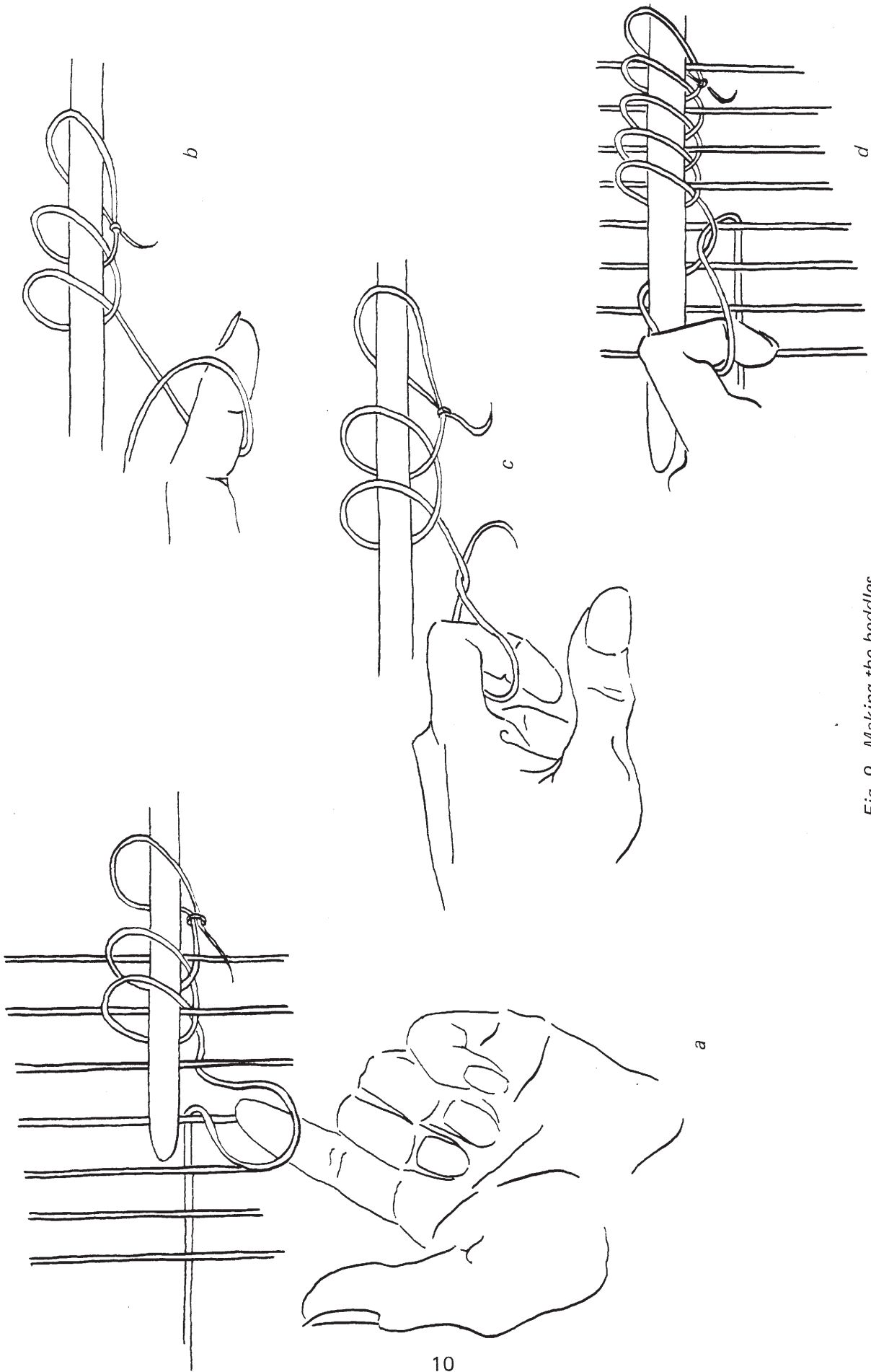


Fig. 9. Making the heddles.

3. The batten is inserted in the shed and, with both hands, turned at a right angle to the warps to open the shed.

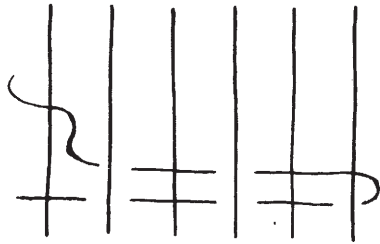


Fig. 11. Beginning or terminating a weft.

The shed rod is pulled forward and the batten inserted and turned sideways, below the heddle rod, to open the resulting shed.

4. The weft is laid in the shed. When a new weft is begun, or an old one terminated, the short end of the weft is turned around the outside warp and run back into the same shed a short distance (Fig. 11): It is then unnecessary, when the piece is removed from the loom, to work the ends in with a weaving needle. They can simply be clipped off.

5. The batten is turned edgewise, the weft is beaten down, and the batten removed.

7. Steps 4 and 5 are repeated.

6. The heddle rod is pushed up toward the shed rod.

8. After weaving has progressed a few inches, the loom is reversed and weaving commences from the cloth beam end of the loom. The heading at the warp beam end serves to keep the warps evenly spaced throughout the remainder of the weaving process (see Fig. 4).

9. On a long warp, the web (the woven section) eventually becomes so long that weaving cannot be continued. At this point, a rod (here called the "roller") of slightly smaller diameter than the cloth beam is laid on top of the web. The fabric is rolled around both the cloth beam and the smaller rod and the ends of the sticks are bound together to keep the fabric from unrolling (see Fig. 4).

10. A technique known as "pick-up" is used to produce the complex laid-in brocade patterns used in much Guatemalan weaving (Fig. 12). The pattern threads are independent of the fabric structure. If all pattern threads were pulled out, the tabby (plain weave) ground fabric would remain intact.

The shed is opened and the warps that will produce the pattern are picked up, either with the fingers, a thin pick-up stick (sanded to a flat point on one or both ends), or, as some Guatemalan weavers do, with a thorn. A pattern weft is inserted and tamped down. The pattern-producing warps are released. Without changing sheds, a tabby-weft is shot through and driven down with the batten. The shed is changed, the pattern threads are picked up, the pattern weft laid in and tapped down, and the tabby shot inserted and beaten. The pattern weft may be carried from one side of the web to the other, as in European over-shot, or each individual motif may be worked

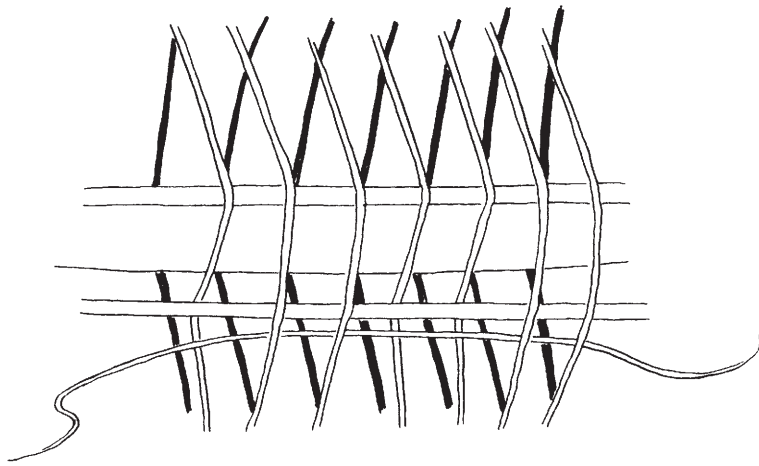


Fig. 12. Pick-up technique.

11. If large sections are to be woven in leno (gauze), it saves time to string the heddles for leno (see Fig. 13).

12. Eventually, the two portions of the web (the body of the fabric and the heading woven in at the warp beam) must be joined. As the shed becomes harder and harder to open with the batten, pick-up sticks replace the batten. A dinner fork or a comb is useful in beating down the weft. The last few weft rows are run in with a blunt-pointed weaving needle.

13. The item is removed from the loom by untying the end loops on the heddle rod and removing the rod. A pull releases the heddle loops. The cords that secure the cloth and warp beams to the web are removed and the lengths of yarn that served as the tie-down cords are pulled out.

with a separate length of yarn. (These directions produce "double-face" brocade, in which the pattern threads appear on both the right and the wrong side of the fabric. For single face brocade, which requires a form of double cloth weaving, and for other Guatemalan techniques, see Atwater [1954, 1965], O'Neale [1945], and Start [1948].) It might be helpful to work the pattern out on graph paper before beginning a design element.

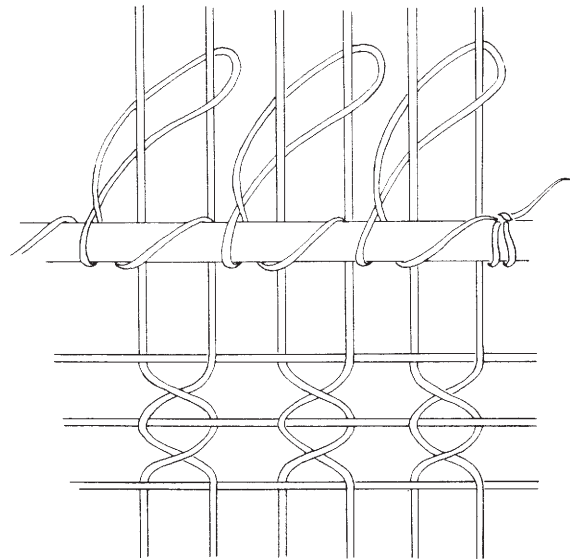


Fig. 13. Heddles rigged for leno weave.

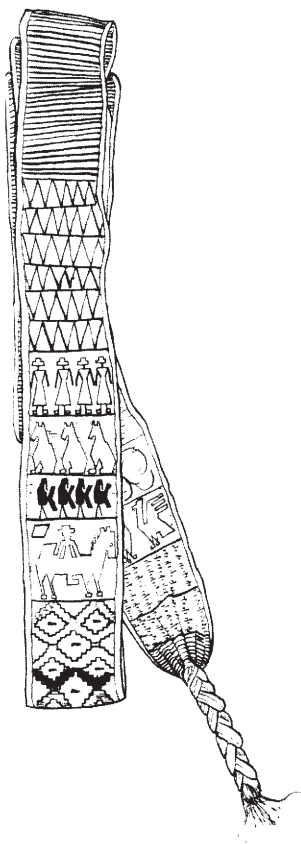


Fig. 14 (LEFT). BELT FROM TOTONICAPÁN, DEPT. DE TOTONICAPÁN.
 Yarn count: warp 92, weft 15.
 Technique: ground—warp rep; pattern—single-face laid-in brocade.
 Fibers: ground and pattern—cotton.
 Colors: ground—black and white, edges in tangerine.
 pattern—medium violet, dark violet, royal blue, dark powder blue, dark turquoise, kelly green, lemon yellow, yellow-orange, orange, tangerine, hot pink, wine.



Fig. 15 (RIGHT). HAIR RIBBON FROM AGUACATÁN, DEPT. DE HUEHUETENANGO.
 Yarn count: warp 48, weft 20.
 Technique: ground—warp rep; pattern—single-face laid-in brocade.
 Fibers: ground and pattern—cotton.
 Colors: ground—red, white selvages.
 pattern—royal purple, royal blue, medium turquoise, forest green, canary yellow, orange, medium pink, dark hot pink, magenta.

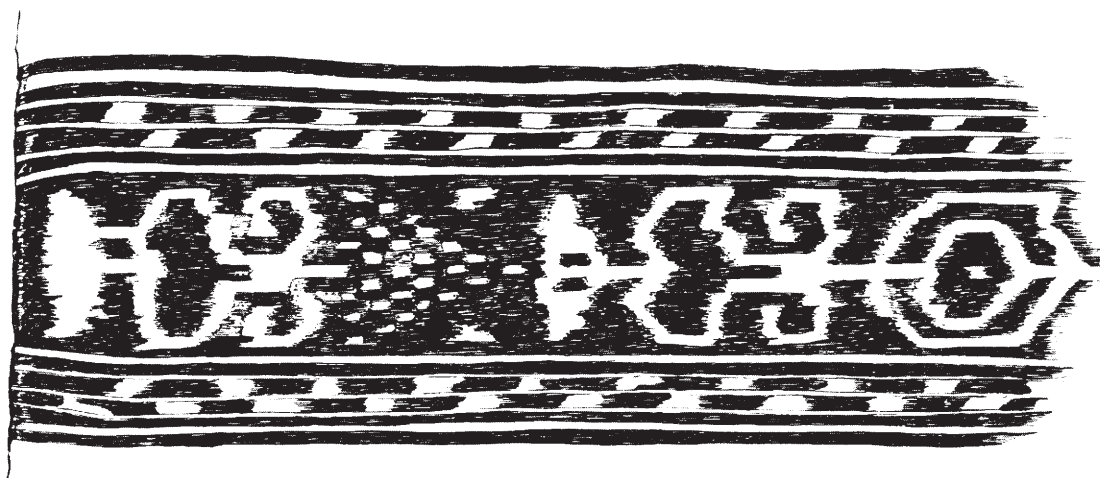


Fig. 16. JASPÉ (IKAT) PATTERN FROM TZUT, TOTONICAPÁN, DEPT. DE TOTONICAPÁN.

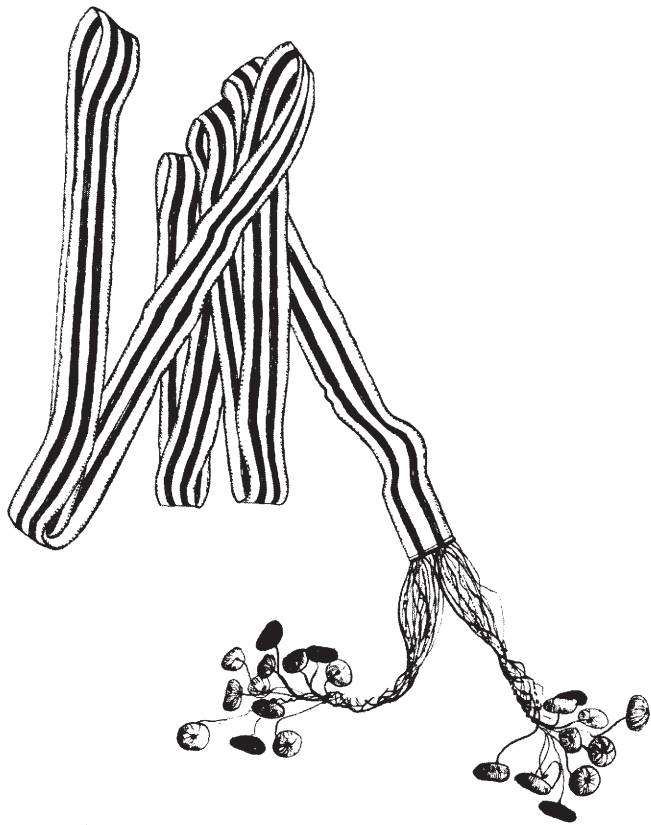


FIG. 17 (LEFT). BELT FROM SANTIAGO SACATEPÉQUEZ, DEPT. DE SACATEPÉQUEZ.
Yarn count: warp 44, weft 20.
Technique: warp rep.

Fibers: wool.

Colors: belt—dark brown, dark eggshell.

tassels—royal purple, royal blue, pale turquoise, kelly green, lemon yellow, orange, light hot pink, dark hot pink, flag red.

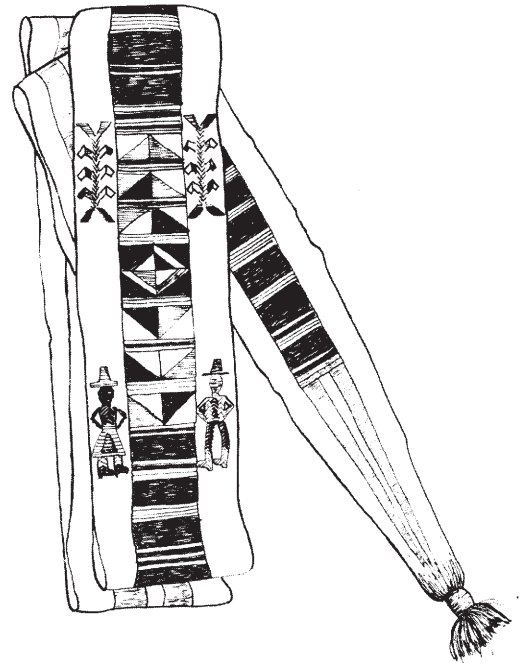


FIG. 18 (ABOVE). WOMAN'S BELT FROM NEBAJ, DEPT. DE EL QUICHÉ.

Yarn count: warp 90, weft 15.

Technique: ground—warp rep; pattern—single-face laid-in brocade.

Fibers: ground—cotton, pattern—cotton, silk.

Colors: ground—white, red.

pattern—royal purple, magenta, aquamarine, apple green, butter yellow, pumpkin, white.



FIG. 19 (LEFT). OLD STYLE BELT FROM SAN PEDRO SACATEPÉQUEZ OR CHICHICASTENANGO.

Yarn count: ground completely covered with embroidery; not counted.

Technique: ground—warp rep; pattern—embroidery in heavy wool about the weight and loft of four-ply knitting worsted.

Fibers: ground—cotton; pattern—wool.

Colors: royal purple, medium turquoise, kelly green, butter yellow, pumpkin, burnt orange, coral, medium hot pink, wine-magenta, lamb's wool white.

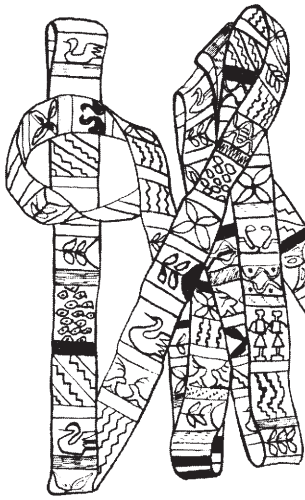


Fig. 20 (LEFT). BELT FROM ZUNIL, DEPT. DE QUEZALTENANGO.
 Yarn count: warp 20, weft 85.
 Technique: tapestry.
 Fibers: cotton, silk.
 Colors: plum, magenta, lavender, royal blue, aquamarine, electric blue, forest green, canary yellow, pumpkin, tangerine, pink, flag red, black, white.

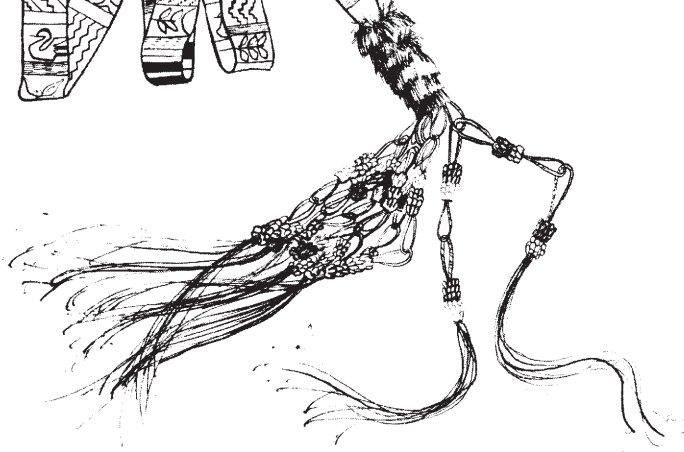
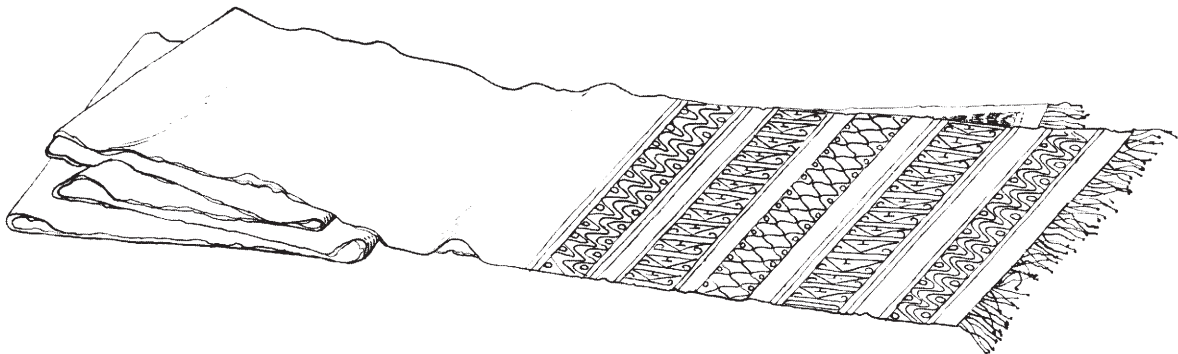
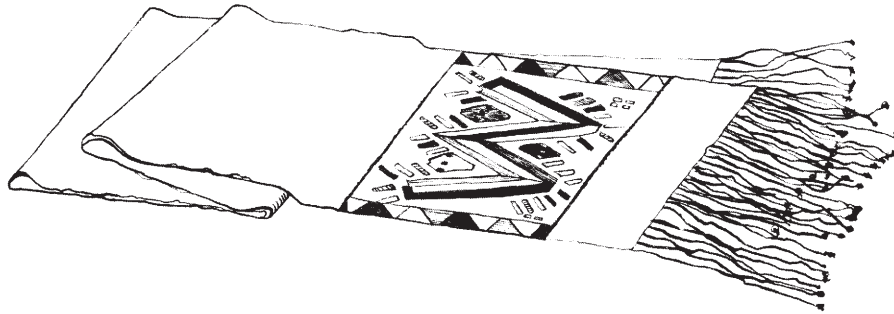


Fig. 21 (CENTER). SASH FROM CHICHICASTENANGO, DEPT. DE EL QUICHÉ.
 Yarn count: warp 63, weft 25.
 Technique: ground—warp rep; pattern—double-face laid-in brocade.
 Fibers: ground and pattern—cotton.
 Colors: ground—red.
 pattern—royal purple, dark wine, lavender, electric blue, dark turquoise, pale turquoise, kelly green, apple green, chartreuse, butter yellow, orange, deep pink.

Fig. 22 (BOTTOM). MAN'S SASH FROM SAN MARTÍN SACATEPÉQUEZ, DEPT. DE QUEZALTENANGO.
 Yarn count: warp 45, weft 24.
 Technique: ground—warp rep; pattern—double-face laid-in brocade.
 Fibers: ground—cotton; pattern—cotton, silk.
 Colors: ground—red.
 pattern—royal purple, medium blue-green.



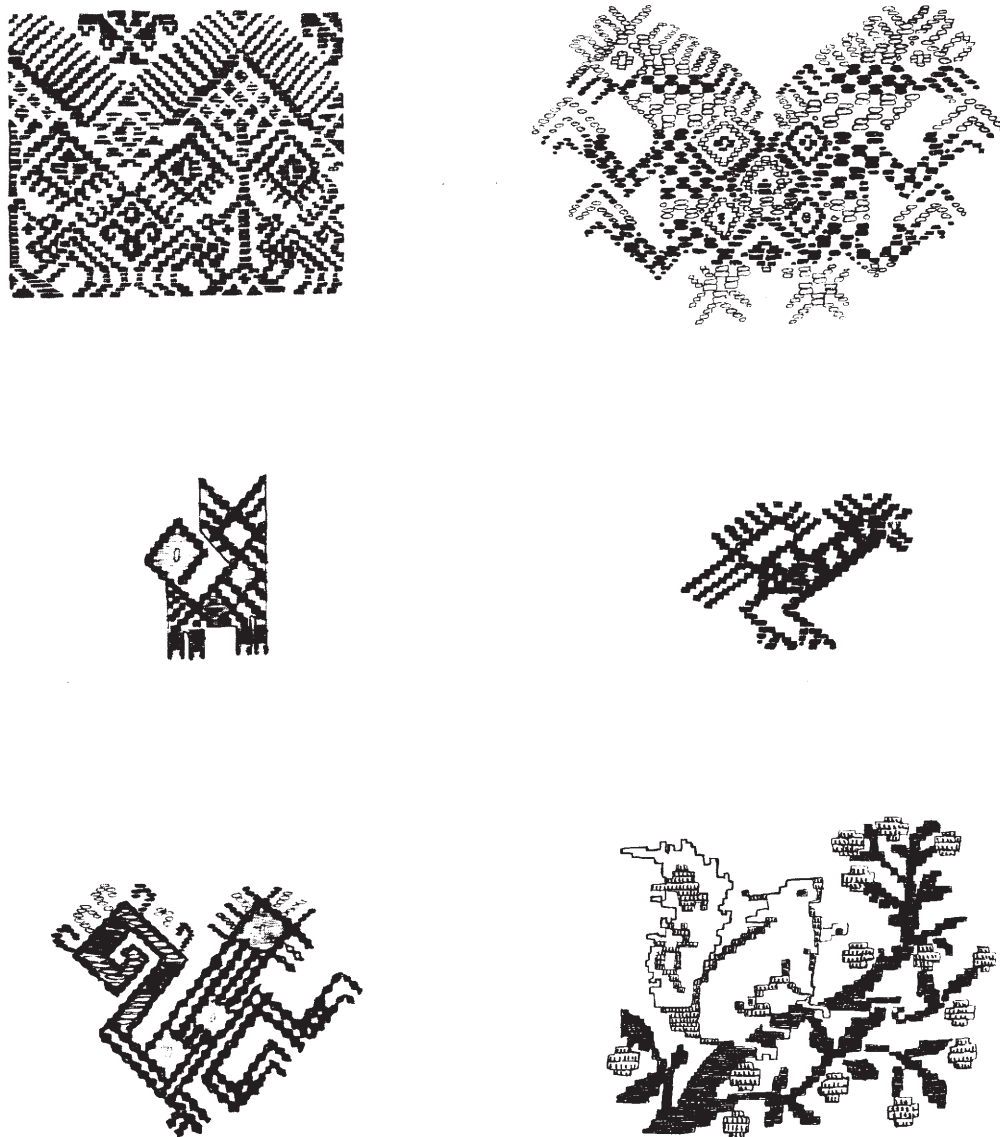


FIG. 23. MOTIFS FROM HUIPILS AND TZUTES.

The tree-of-life (top, left), from a San Martín Sacatepéquez wedding huipil, is executed in purple and butter yellow on a white ground. The two-headed bird (top, right) is from a man's tzut from Nahualá. From a two-piece Nahualá huipil are the cat (center, left) and the monkey (bottom, left). The rooster at center right is from a tzut woven at San Antonio Aguas Calientes in the style of Santo Domingo Xenacoj. At bottom right is a squirrel and oak tree pattern. Although woven in double-face laid-in brocade, the style and motif were inspired by the embroidery technique of German and French nuns serving in Guatemala.

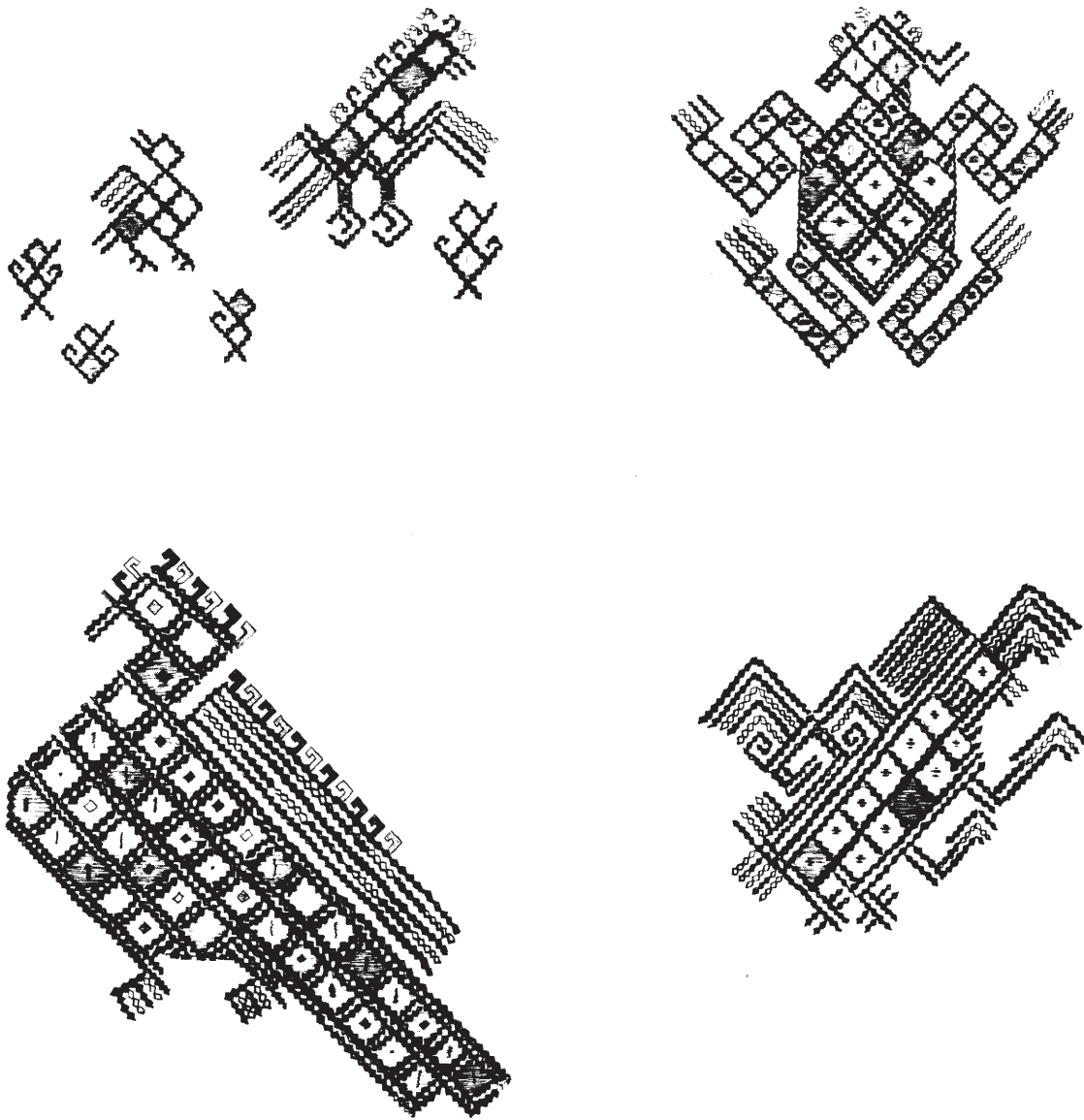


FIG. 24. ROOSTER, HEN, CHICKS, FROG, TURKEY, AND GOAT FROM A TWO-PIECE HUIPIL FROM NAHUALÁ, DEPT. DE SOLOLÁ. (The cat and monkey, Fig. 23, are also from this huipil.)

Yarn count: warp 55, weft 27.

Technique: ground—warp rep; pattern—double-face laid-in brocade.

Fibers: ground—cotton; pattern—silk, cotton.

Colors: ground—white.

pattern—royal blue, dark turquoise, forest green, kelly green, lemon yellow, yellow-orange, orange, flag red.

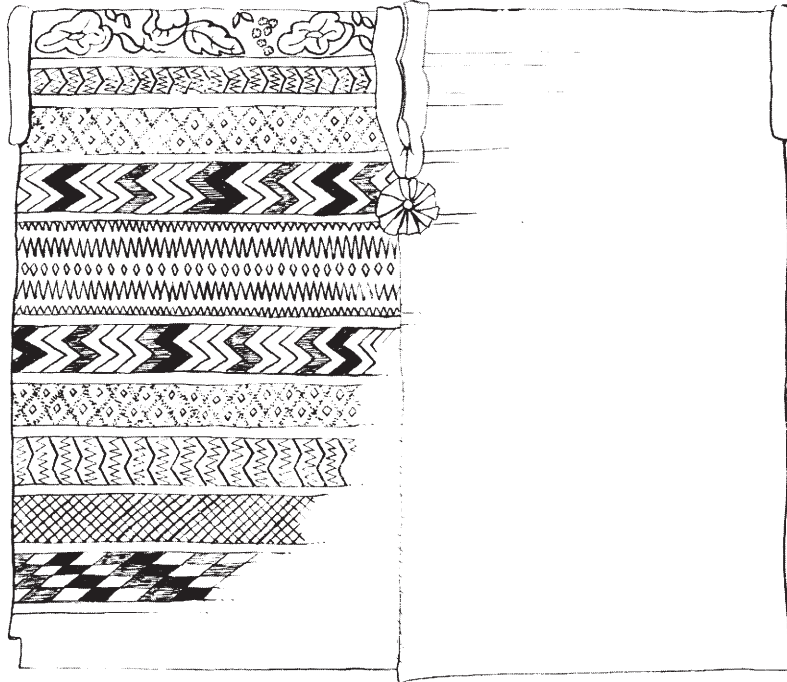


FIG. 25. TWO-PIECE HUIPIL FROM SAN ANTONIO AGUAS CALIENTES, DEPT. DE SACATEPÉQUEZ.

Yarn count: warp 59, weft 21.

Technique: ground—warp rep; pattern—single-face laid-in brocade.

Fibers: ground and pattern—cotton.

Colors: ground—wine.

pattern—royal purple, magenta, lavendar, dark indigo-aniline blue, medium turquoise, dark olive green, forest green, moss green, lemon yellow, pumpkin, tangerine, flag red, black, white.

FIG. 26. THREE-PIECE HUIPIL FROM CHICHICASTENANGO, DEPT. DE EL QUICHÉ.

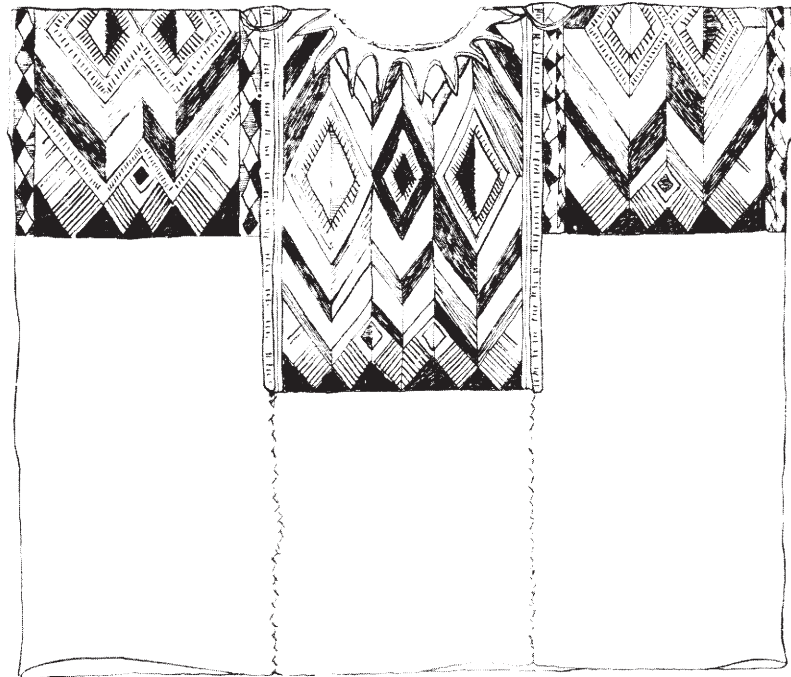
Yarn count: warp 72, weft 19.

Technique: ground—warp rep; pattern—double-face laid-in brocade; shoulder rosettes and sunburst around neck in chain stitch embroidery.

Fibers: ground and pattern—cotton.

Colors: ground—white.

pattern—wine, lavendar, baby blue, medium turquoise, royal blue, navy blue, dark olive green, forest green, apple green, lime green, pale lemon yellow, butter yellow, orange, burnt orange, tangerine, pale pink, dark rose, dark coral, flag red, cocoa brown, chocolate brown, black, white.



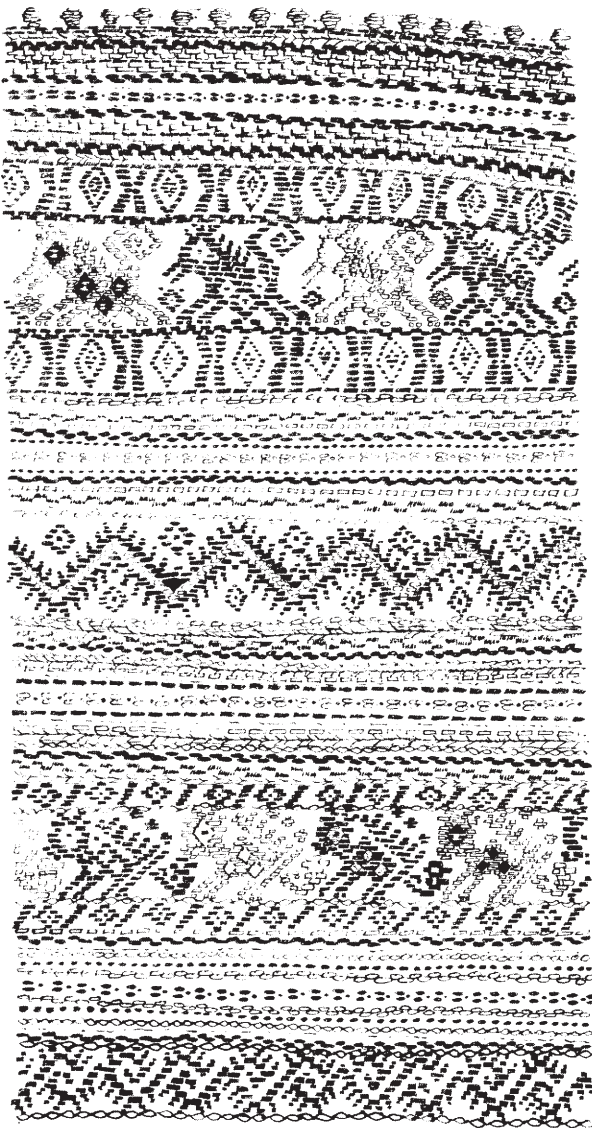


FIG. 27 (LEFT). PANEL OF HUIPIL FROM SAN JUAN COMALAPA, DEPT. DE CHIMALTENANGO.

Yarn count: warp 44, weft 18.

Technique: ground—warp rep; pattern—double-face laid-in brocade and overshoot.

Fibers: ground—cotton; pattern—cotton, silk wool.

Colors: ground—bright red, ecru, natural brown.

pattern—magenta, grape, royal purple, powder blue, aquamarine, dark turquoise, forest green, kelly green, antique gold, pale pink, hot pink, bright red.

FIG. 28 (BOTTOM). THREE-PIECE HUIPIL FROM COLOTENANGO, DEPT. DE HUEHUETENANGO.

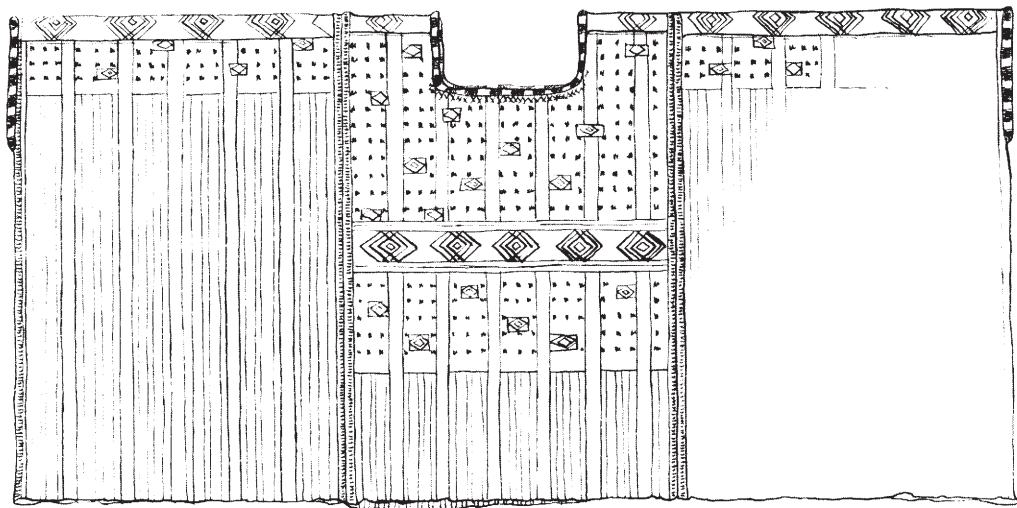
Yarn count: warp 76, weft 21.

Technique: ground—warp rep; pattern—soumak; pattern is single-face.

Fibers: ground and pattern—cotton.

Colors: ground—red and white stripes; every third red stripe, which is wider than the previous two, contains thin (two-warp) orange stripes; at the ½ inch selvages, stripes are red, yellow, green, blue, purple.

pattern—royal purple, magenta, electric blue, forest green, lemon yellow, orange, flag red.



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Weavers of the Jade Needle: Textiles of Highland Guatemala

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