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A DESIGN ANALYSIS OF QUECHQUEMITL FROM THE CORDRY COLLECTION

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A DESIGN ANALYSIS OF QUECHQUEMITL
FROM THE CORDRY COLLECTION

by

Elouise Adele Evans

A Thesis Submitted to the Faculty of the
SCHOOL OF FAMILY AND CONSUMER RESOURCES
In Partial Fulfillment of the Requirements
For the Degree of
MASTER OF SCIENCE
In the Graduate College
THE UNIVERSITY OF ARIZONA

1985
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Naomi A. Reich
Professor of Clothing and Textiles

5/16/85
Date
PREFACE

This study is a comparative design analysis of quechquemitl contained in the Cordry collection, an important collection of Mexican Indian costume. Collections such as the Cordrys' are valuable sources of information about items of material culture which might otherwise be lost to textile scholars, anthropologists, historians, costume designers and others. One third of this collection is contained at the Arizona State Museum; other items are at the Museum of Folk Art in Santa Fe, New Mexico and at the Museum at Texas Tech University in Lubbock, Texas. The collection includes the components of Mexican Indian costumes -- huipiles, quechquemitl, bags, belts, skirts, trousers, carrying and head cloths, etc. Two of the most important textile apparel items are the huipil and the quechquemitl. The quechquemitl was chosen for this study for several reasons.

1) There are many fewer quechquemitl in the Cordry collection; even as they were collecting, this form of dress was being abandoned.

2) The huipil, on the other hand, is still widely encountered both as an item of costume (especially in the state of Oaxaca) and as a commercial commodity.

3) Excellent textile craftsmanship--both in weaving and in ornamentation--has been done in the manufacture of the quechquemitl.
4) Except for the Cordrys' excellent study, **Mexican Indian Costume**, not much has been written in English about this important garment.

Although the costumes of Mexican Indian groups are numerous and diverse, constituting an important addition to the historical and anthropological record of Meso-American textiles, they are not as widely known or appreciated as Peruvian and Guatemalan textiles. According to Donald and Dorothy Cordry, Mexican costume is "bolder, more indigenous, and of greater variety" than Guatemalan costume (1968, p. 9). It is important, therefore, to produce further study of these costumes, especially because of the proximity of Mexico and its influence on our own Southwestern culture. In addition, designers have historically adapted design from ancient and primitive cultures; the colorful quechquemitl of indigenous Mexico, with their imaginative use of color and motif and their intricate and technically excellent weaving and handwork, will serve as further inspiration to designers in the textile fields -- both in apparel and interior design.

**Resource Materials and Procedures**

The definitive work on indigenous Mexican dress is **Mexican Indian Costume**, by Donald and Dorothy Cordry (1968). It serves as primary source material for this study. Other important works consulted include, "El quechquemitl y el huipil," by Irmgard Weitlaner Johnson (1953) and "Otomí Looms and Quechquemitls from San Pablito, State of Puebla and from Santa Ana Hueytlaapan, State
of Hidalgo, Mexico" (1947), by Bodil Christensen. Historical background and descriptions of specific costumes were obtained from many other sources, including numerous articles in *Artes de Mexico* and the marvellously illustrated *Traje indígena de México*, by Carlotta Mapelli Mozzi and Teresa Castello Yturbié (1966, 1968).

Consultation with officials at the Arizona State Museum provided knowledge of the whereabouts of the Cordry collection. Letters explaining the research, short questionnaires and release forms (Appendices B, C, and D) were sent to the Museum of International Folk Art in Santa Fe and to the Museum at Texas Tech. Unfortunately, the portion of the collection at the Museum of International Museum of Folk Art was not accessible, because of extensive remodeling.

The collections at the Arizona State Museum and at the Museum at Texas Tech were available for examination; 28 quechquemitl from the Cordry collection were examined and analyzed. In addition, five quechquemitl from other collections were available for comparative study at the Arizona State Museum. Appendix A lists the components of the collection at the Arizona State Museum and at the Museum at Texas Tech.

An instrument was developed to facilitate the analysis of the quechquemitl and the organization of the data (Appendix E). Photographs were made of each of the quechquemitl. The following categories were established for examination and analysis of the quechquemitl: provenience, date of collection, and cultural group; the method of weaving the quechquemitl and the accompanying costume components; and the design of the quechquemitl themselves, including weave, ornamentation, motifs, construction, finishing, and overall dimensions.
ACKNOWLEDGMENTS

The author extends sincere appreciation to the members of the thesis committee; to Dianne Dittemore for being patiently "on call" and making the collection at the Arizona State Museum available; to Dr. James Goss at the Museum of Texas Tech; and especially to Dr. Naomi Reich for her expertise and encouragement.
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ABSTRACT

This study is a design analysis of an important item of Mexican Indian costume, the quechquemitl. The quechquemitl analyzed are part of the Cordry collection; the twenty-eight quechquemitl examined represent seven cultural groups. Collections such as the Cordrys' provide vital sources of information because they preserve the best of a vanishing art form. Such collections offer opportunities for the study of material culture and all the concomitant disciplines.

Contemporary Mexican Indian costume, particularly that of women, is a clue to pre-Hispanic costume. The richness and technical virtuosity of the weaving and embellishment techniques of the quechquemitl are representative of the same qualities of other Mexican costume textiles. Thus the study of quechquemitl is valuable to textile scholars for design inspiration as well as technical information.
CHAPTER 1

REVIEW OF LITERATURE

The review of literature will provide the necessary background information in order to place the quechquemitl in a contextual framework. It will be divided into six sections: historical background, technology, contemporary women's costume, the huipil, geographical distribution for the huipil and the quechquemitl, and (specifically) the quechquemitl.

Contemporary Indian costume gives valuable information about pre-Hispanic dress, and vice-versa; technology used in the execution of modern costumes differs little from that used in ancient times. This cross-referencing provides important background material, making the design analysis more understandable. The components of contemporary women's costume differ by area and/or by cultural group, and a brief discussion of these components also is important to this study. Special attention is given to the huipil as the alternative upper garment. The quechquemitl is discussed generally in this section; specifics of its design will be incorporated in the design analysis section.

Historical Background

Contemporary Mexican Indian costume is in many ways a reflection and a continuation of pre-Hispanic dress. Because of the damp
tropical climate of Meso-America, there are few extant textiles; however, dry caves have produced cloth which would indicate that most of the weaving techniques used in Peru were also used in Mexico (Cordry and Cordry 1968, p. 10). Stone stelae, painted and sculptured pottery and tomb paintings give valuable information about costume and textiles. The early codices and the tribute rolls of Montezuma are further sources of information about dress and about the importance of textiles as items of tribute (Keleman 1977, p. 188) (Figure 1).

Pre-Cortesian garments were made from straight lengths of cloth as they were taken from the loom; they were highly decorated—woven with designs (brocading, figured gauze, tapestry, warp and weft-faced stripes); they were embroidered, stamped and dyed (Cordry and Cordry 1968, p. 6). Costume for men included a maxtlatl, or loin cloth, and at times a tilmatli or ayate (ayatl), a light, loosely fitting knee-length cape. Women wore a wrap-around skirt, which varied in length depending upon the epoch and culture.

For an upper garment, women wore a huipil, a garment fashioned of one, two or three straight lengths of cloth sewn together or a quechquemiltl, a triangular appearing garment; the quechquemiltl would be worn for formal occasions and especially if the woman was of noble birth (Cook de Leonard, Cordry and Morales 1966, p. 21). Quechquemiltl were worn by goddesses as well as by noblewomen.

In one study of the Aztec quechquemiltl, evidence is presented that the quechquemiltl was used in a ritual context and was worn only by goddesses and goddess impersonators. There was a particular
Figure 1a. The goddess Tlazolteotl spinning cotton. After Seler (1963) Vol. I, p. 125.

Figure 1b. A figure wearing a quechquemitl, after the Codice Nuttall (1975, p. 42).

Figure 1c. A goddess in a quechquemitl with ilhuitl (S) symbols. After the Codex Selden (Caso, 1964, p. 7).

Figure 1d. A figure wearing a quechquemitl adorned with feathers. After the Codex Selden (Caso, 1964, p. 14).
association with fertility goddesses; this association was tied to the early historical evidence of the wearing of the quechquemitl in the Gulf Coast region of Mexico (by Huastecs and Totonacs) and the early absorption into Aztec culture of religious concepts originating in the Gulf Coast region — a very fertile and abundant area (Anawalt 1982, pp. 41, 48, 49, 51). Costumes included elaborate headdresses of wood, fibers, leather or bark paper and jewelry of shells, mother of pearl, gold, jade, semi-precious stones and rock crystal. Sandals of ocelot skin and embroidery were worn by men; women usually are pictured barefoot, but sometimes wore sandals of ixtle (maguey) fiber (Cordry and Cordry 1968, p. 9).

The principle fibers used in pre-Hispanic times were cotton (for the nobility) and ixtle (for commoners). Other fibers included yucca, chichicaztle, nequén (henequen) and apocyna. Rabbit hair and feathers were often woven in for warmth as well as for decoration (Johnson 1971, p. 162). Evidence of silk, both wild and cultivated, in the Mixteca and in the valley of Atlixco was mentioned by Mortolinia in his history, and has been mentioned by several other historians (Castelló Yturbiade and Martinez Rio de Redo 1971, p. 89).

Evidence of cotton was found in Coxcatlan cave in the Tehuacan valley of Puebla dating to 5800 B.C. The earliest examples of cotton textiles are from the Early Period at Zacatenco (ca. 11th century B.C.) in the Valley of Mexico and the Santa Maria Phase (900-200 B.C.) at Coxcatlan (Johnson 1971, p. 162). During the 14th century, the Aztecs exacted an annual tribute of over a million
pieces of cotton cloth, and there is evidence that the highest level of cotton cultivation and weaving in all pre-Hispanic history was achieved at this time (Cordry and Cordry 1968, p. 9).

Dyes were obtained from many native plants; some that are still used today are indigo (Indigofera, anil, L.) for dark blue, Brazilwood for red, and zacatlcacalli (Nahua) for mustard yellow. Various species of shellfish (purpura patula punsa, Thais kioski forms, Murex) were sources of purple; cochineal or grana, the bodies of the female of a scale insect found on the nopal or prickly pear, gave a red dye. Cochineal was an important tribute item to the Aztecs from Oaxaca. Mineral dyes were also used for dyeing and for body paint (Cordry and Cordry 1968, p. 6).

There is much evidence regarding the importance of weaving and the weaver in pre-Cortesian Mexico. The life of the Indian woman before the conquest was occupied largely by weaving, not only for herself and her family, but for ceremonies and for tribute. Women worshipped and were sacrificed to, among several, the goddess Tlazolteotl. In one of her aspects, Tlazolteotl is pictured wearing about her head a cotton fillet which reaches her shoulders, and has spindles stuck in the unspun cotton (Cordry and Cordry 1978, p. 5) (see Figure 1a). Some weavers achieved such a high level of proficiency that they were regarded as a separate class or group of professionals (Jeter and Juelke 1978, p. 19).

Spinning and weaving were practiced with the same tools as they are today. Two types of looms were used -- the backstrap
or stickloom (telar de otate) and the rigid loom, which consisted of a frame set on posts put into the earth. The latter produced a ring or tubular web (Cordry and Cordry 1968, p. 8). It is possible to reconstruct ancient methods by interpreting from contemporary indigenous textiles. Irmgard W. Johnson, in her treatise on costume in The Ephemeral and the Eternal in Mexican Art (1971, p. 165) lists the following: brocade, loop brocade, double cloth, twill, tapestry, gauzes, warp twined weave and shaped weaving.

The Spanish conquerors influenced the world of textiles and costume, as they did the whole of North and South American history. "At no other time in history has there been such a significant degree of culture contact between peoples of completely distinct traditions" (Foster 1960, p. 1). The spinning wheel, the European treadle loom, and sheep for wool were important additions to the weaving lexicon. Silk from the Orient and linen were also introduced. The Spanish were quick to recognize and employ the skill of the Indian and mestizo craftsmen (Keleman 1963, p. 3); to this day, men operate the upright loom in Mexico, while women employ the telar de otate.

The practice of tribute was shifted over to the Spanish. It was common practice in the 16th century for Indian villages to pay their encomienda taxes in differently woven pieces of cloth. Cotton, logwood and cochineal became important trade items for Spain (Cordry and Cordry 1968, p. 9).

Native American techniques were vigorous and well-developed upon the arrival of the Spanish, and it is difficult to ascribe
Spanish influence to specific items of dress. Practically the only items clearly ascribable to the Spanish were the European style blouse and peasant skirt for women and felt hats, breeches and boots for men, according to the Cordrys (1968, p. 10).

Dress was prescribed for social rank and occupation — hidalgo, medico, student, merchant, etc. European dress was adopted by the mestizo, but he was regulated. The Indian, at the bottom of the social scale, retained traditional dress (Keleman 1977, p. 189). The Conquest released the Indians from dress restrictions imposed by the Aztecs; by 1580, there was no difference between the dress of the macchuales (humble people) and of the principales (important people).

The dress of today's Indian woman seems to be that of the upper class pre-Hispanic woman (Cordry and Cordry 1968, p. 9). The woman's garments in conservative villages consist of a huipil or a quechquemitl, a wrap-around skirt (enredo), a belt, a rodete (turban-like headdress) or a special head cloth, possibly a shoulder covering of some kind, and sandals (in rare cases). Blouses (of Spanish origin) are often worn under the quechquemitl, and in many places have become a noteworthy addition to costume in terms of expert needlework (Cordry and Cordry 1968, pp. 10-11).

Technology

The products of the telar de otate, or backstrap loom, cannot be copied commercially. In very conservative villages, women dress alike and compete on the basis of workmanship, quality of handspun thread, newness and cost of ribbons and wool thread, elaborateness
of design, etc. (Cordry and Cordry 1968, p. 11). Among the Otomi in
the Valley of Toluca, it is said that a woman cannot marry until she
knows how to weave a belt for her future husband; in this instance the
belt was the last traditional garment to be abandoned (Johnson 1971,
p. 166).

The fiber -- cotton, wool, silk, or ixtle -- is spun with a
drop spindle, called a malacate (Aztec mal- acatl: mal from malina,
twist; acatl, cane -- cane that twists). Spindles vary according
to whether the ends of the sticks are pointed or blunt. The whorl
is usually made of clay, sometimes (Huichol) of bone or gourd. Some­
thing should be said about the preparation of cotton for spinning; it
is at best a laborious job. It must be carefully picked over, fluffed
out and then beaten before it can be spun (Cordry and Cordry 1968,
pp. 26-7). Spinning cotton to an even, fine, smooth thread takes a
great deal of dexterity and skill. The thread is then measured on a
warping frame before being placed on the backstrap loom; a figure­
eight winding keeps the yarns in order and prevents tangling.

The backstrap loom (Figure 2) is simply an arrangement of
sticks which can hold the warp yarns and control them so as to facili­
tate the interlacing of the weft. The warp is attached with a cord
to both the warp and cloth beams, ultimately creating a fabric with
four selvedges. The weaver weaves a narrow heading at one end and
then turns the loom around. The work progresses toward the heading.
Smaller and smaller battens are used toward the end and then the
weaving is finished with a needle (Fisher 1975, p. 15).
Figure 2. Backstrap loom. After Cordry and Cordry, 1941, p. 101.
The top side of the loom in Figure 2 would be attached to a post or tree, the lower side to a backstrap, which encircles the weaver's waist. Heddles lift different groups of threads to form weaving patterns; sometimes a tenter is used to maintain a particular width of cloth. The batten or sword beats in the weft; shed sticks conserve the space or "shed" formed by lifting the heddles. In addition, smooth sticks are used to lift small areas for brocading with bobbins of thread. Thread for the weft is generally wound around a long, slender stick or bobbin. Picks and combs are used to adjust and push down weft threads (Cordry and Cordry 1968, p. 38).

Mention must be made of several special techniques employed by weavers of quechquemitl: gauze weave, seersucker, brocade, and curved or shaped weaving. Gauze weave gives a lacy, open-work effect. Warps are shifted laterally out of their originally paired positions and then back again and are secured in each position by the interlacing of the wefts (Emery 1966, p. 183). In some of the fine gauze quechquemitl from the Sierra de Puebla, very complex arrangements of heddles are used to execute the gauze; six heddles are often used, and as many as twenty have been counted (Arizpe Schlosser and Kandt 1972, p. 108). The gauzes in quechquemitl are generally more intricate than those used in huipiles (Johnson 1953, p. 253). Simple gauze in an all-over pattern is used, as are linear arrangements separating rows of plain weave. A composite of four or five rows of alternate plain and gauze oblongs, separated by two or three rows of heavier cotton, giving a honeycomb appearance, appears in several
quechquemitl form this region (Start 1948, pp. 60-61). It is referred to as checkerboard style in the analysis section.

Seersucker stripes are formed by using a commercial thread in stripes. This commercial thread is much coarser than the fine handspun in the rest of the textile. When the textile is washed, the handspun threads shrink, whereas the commercial threads do not. A ridge is formed in these stripes, resembling seersucker (Cordry and Cordry 1941, pp. 119-120).

Weft brocade is a decorative technique wherein a supplementary weft -- a heavier thread or a thread in a contrasting color -- is inserted during the weaving to form a pattern; a row of plain weave weft holds it in place. A particularly interesting looped brocade is formed by weaving a row of normal brocade, then inserting a thorn to pull up the brocade threads (Start 1948, p. 66). Brocade is often mistakenly identified as embroidery in Mexican and Guatemalan textiles.

The curved weave technique is a particularly complicated and unique one. In this technique, part of the warp is of white cotton and part is of wool -- red or Mexican pink. The wool portion of the warp is much longer than the white and at a certain point in the weaving, which to this point has produced a warp faced fabric, the wool warp is cut and used as weft in a weft faced band. This gives the impression of the red border turning a corner. The curves formed by turning the warp into weft fall exactly over the shoulders of the wearer, giving a graceful line to the quechquemitl (Christensen 1947,
Broad woolen bands are used in the two Otomi quechquemitl (see Figures 14 & 15). The technique is also used in a narrow border in other parts of the Sierra de Puebla, Hidalgo, and Vera Cruz by Nahua and Totonac weavers (see Figures 8a, 17 & 18) (Christensen 1947, p. 27). Another example of a quechquemitl with outstanding technical virtuosity is the resist dye quechquemitl done in the 1950s by the Otomies in Tolimán, Querétaro (see Figure 23) (Johnson 1976, p. 24).

In addition to quechquemitl, Johnson (1976, p. 27) lists some other outstanding examples of high technical skill. Included are embroidery on old style shirts by the Nahuas of Ajalpan, Puebla; huipil embroidery by Nahua of Amatlán de los Reyes, Vera Cruz; pozahuancos (wrap-around skirts) with a warp patterned weave in indigo, caracol (purple shellfish dye), and cochineal dyed cotton by the Mixtecs of Pinotepa de Don Luis, Oaxaca; and huipiles woven for others by the Chinantecs of Usila, Oaxaca.

**Contemporary Women's Costume**

A brief description of each of the components of women's costume is in order to place the quechquemitl in context as part of a whole. More detailed descriptions of important parts of individual groups' costumes accompany the analyses of the quechquemitl studied.

Skirts (called variously enredo, enagua, manta, lía, costal, sábana) of the pre-Conquest wrap-around type are still worn in many villages. They consist of a rectangle of cloth, usually two lengths sewn together, either open-ended or seamed to make a tube. Lengths and widths vary. Some are produced on the upright loom or are made of
commercial cloth. They are pleated in various ways and held in place in most cases by a belt. Skirts gathered into a waistband are also seen; these are usually made of commercial cotton (Cordry and Cordry 1968, pp. 100-114).

Belts, in addition to their function of holding up the wrap-around skirt, provide a decorative feature in a costume. They are often produced in belt-weaving centers and purchased by the wearers (Cordry and Cordry 1968, pp. 115-142). They have a wide range of width, length, color and pattern and are worthy of a study of their own.

Distinctive hairdress and headdress is an important aspect of the costume of the Mexican Indian woman. The hair is braided with ribbon or woven cords, wrapped around a super-structure (petób), or accented by a high rodeté (turban). Black hair is often accented by dyes of different types and colors. Often the quechquemitl or huipil is used as a head covering; other handwoven cloths or rebozos may also be used (Cordry and Cordry 1968, pp. 115-134).

Jewelry is a popular adornment. Necklaces, rings, and earrings seem to be preferred to bracelets. Bags, hand-woven or hand-embroidered, are important costume components for many groups.

The Huipil

The huipil is the other important upper garment worn by Mexican Indian women. It is composed of one, two, or three loom webs sewn together lengthwise and folded transversely. In the case of huipiles made from two lengths of cloth, the neck opening is
usually a slit formed by leaving the two pieces unsewn. Other necklines are square or round. Armhole openings, formed by sewing the sides together, vary from very small to very large, depending upon the location (Figure 3).

![Figure 3. Huipiles.](image)

Methods of joining the huipil strips vary; they often consist of fancy embroidery or randa (a common term describing the decorative joins used in Mexican and Guatemalan textiles). Intricacy of neck and sleeve finishes often depend on the financial status of the owner. Design emphasis is generally horizontal, with bands of gauze weave, brocade, or embroidery providing that emphasis. Huipil lengths are usually woven with four selvedges. They are worn in many ways — hanging loose, tucked in, tucked up about the waist, over the shoulders, etc. Often a newer huipil is worn over a ragged one. Their ample size makes them useful as carrying cloths and as head coverings (Cordry and Cordry 1968, p. 50-80).
Geographical Distribution of the Huipil and the Quechquemitl

Irmgard Weitlaner Johnson points out in her article "El quechquemitl y el huipil," that data concerning the distribution of the quechquemitl and the huipil are incomplete (1953, p. 242). She based her study primarily on literature available and upon the collections of the National Museum of Anthropology in Mexico City and the Museum of Anthropology at the University of California, Berkeley. Bodil Christensen's collection from the Sierra of Puebla was also consulted. The distributions for the two garments are very different today than in pre-Hispanic times, when the quechquemitl was shown worn over the huipil in archaeological figurines in the south of Mexico -- Oaxaca, Yucatan and Campeche -- as well as in the north.

Today, the quechquemitl is confined to north-central Mexico, covering a large area -- Nayarit and Jalisco (Huichol); Querétaro (Otomí); San Luis Potosí (Huastec and Nahua); the states of Vera Cruz, Puebla and Hidalgo (Huastec, Otomí, Nahua, Tepehua, Totonac); and the state of Mexico (Otomí, Nahua and Mazahua) (Cordry and Cordry 1968, p. 12). According to Johnson (1953, p. 257), they have also been seen in one Tarascan pueblo -- Anague, near Uruápan. The Cordrys (1968, p. 12) place the huipil in the southeastern part of Puebla (Nahua); in Morelos (Nahua); in Oaxaca (Zapotec, Mixtec, Mixe, Huave, Amusgo, Chontal, Chinantec, Cuicatec and Mazatec); in Guerrero (Nahua, Amusgo, Tlapanec); in Chiapas (Tzotzil, Tzeltal, Lacandon, and Zoque); and in Yucatán (Maya) (Figure 4).
Figure 4. Map of Mexico showing quechquemitl and huipil areas.
The Quechquemitl

The quechquemitl -- from the Nahua words quechtli, "neck," and tlaquemitl, "garment" (Christensen 1947, p. 127) -- is variously described as a shawl, a cape-like garment, and a triangular garment. In fact, it is none of these, though when worn with the points front and back, it does have a triangular appearance. Like the huipil, it is made from lengths of fabric as they are taken from the backstrap loom. Many quechquemitl rectangles have four selvedges; in others both lengths are placed on the backstrap loom at one time, necessitating a cut and thereby producing two lengths with three selvedges each. There are three methods of construction used, two of which were encountered in this study and which will be referred to as Type I and Type II.

Type I utilizes two rectangles; the narrow end of each is sewn to the long side of the other, forming a neck opening. It is worn points front to back or with points to the side (Figure 5a).

Figure 5a. Type I quechquemitl.
Figure 5b shows where raw edges appear when the two quechquemitl strips in Type I have but three selvedges each. They are generally handled by turning and hemming in some fashion. In general, where such a hem appears, a raw edge is assumed; customarily a selvedge is butted to another selvedge and joined invisibly or decoratively.

![Figure 5b. Raw edges on Type I quechquemitl.](image)

Type II consists of one long length of fabric folded forming a square and sewn on the other side, leaving an opening for the head. Sometimes, two squares of fabric are joined together and worn with the points front and back (Figure 5c).

![Figure 5c. Type II quechquemitl.](image)
Type III is very rare and was not encountered in this study, although the Cordrys (1968, p. 81-82) possess one in their collection. This quechquemitl is fashioned of a single rectangle from which a rectangle has been cut from the long side. When folded over, the garment is formed (Figure 5d), (Cordry and Cordry 1968, pp. 81-83; Johnson 1953, pp. 242-244; Christensen 1947, p. 135).

![Figure 5d. Type III quechquemitl.](image)

Another type of pre-Cortesian quechquemitl is described by Russell Davis (1961, pp. 1-4) in which the rectangles were twisted before being sewn together, forming a garment that conformed to the body. In his study of figurines, reliefs, and codices, Davis dates the quechquemitl to Teotihuacan I and to earlier cultures of the Middle Pre-Classic era.

The quechquemitl indicated social position and was usually associated with goddesses or noblewomen (Johnson 1971, p. 167). In an interpretation of the Codex Selden by Alfonso Caso (1964) the
names of Mixtec princesses often contain the word quechquemitl, for example "6 Monkey Serpent Quechquemitl," (see Figure 1, pg. 3).

Frederic Starr, who traveled throughout Mexico in the late 19th century makes several mentions of quechquemitl — worn by Tepehuas, Otomies and Totonacs (Starr 1908, pp. 249, 252, 256, 258). Jacques Soustelle is quoted as saying "It would seem that the quechquemitl was characteristic of the Totonac groups of the Gulf Coast. It was brought to the Altiplane by the Otomies, who copied those garments of other groups they liked with great facility" (Mapelli Mozzi and Castelló Yturbide 1968, p. 63). Johnson (1953, p. 257) also makes special mention of the high technical development in the Otomi family and mentions their skills in executing double cloth, damask, brocade, warp faced weaves, jaspe (ikat), and especially tejido de faja en curva, or curved weaving.

In addition to being worn points front and back and points to the sides, the quechquemitl is worn as a head covering. Today it is usually worn over a blouse; in at least one case (Atla, Puebla), the development of the highly and expertly embroidered blouse has led to the diminishing of size of one style of quechquemitl (Mapelli Mozzi and Castelló Yturbide 1968, p. 63). One quechquemitl (in Chicontepec Vera Cruz) is worn slung under the arm with one shoulder bare (Mapelli Mozzi and Castelló Yturbide 1968, p. 19; Plate II). Other instances of the quechquemitl being worn as the only upper garment, especially by older women, have been reported.
An important aspect of the design of the quechquemitl includes how it is worn and with what it is worn. Detailed descriptions are given in the Design Analysis section, which follows.
CHAPTER 2

DESIGN ANALYSIS

Design

The design of quechquemitl is achieved through three basic technical processes: the weave, including fiber and color as well as structure; surface ornamentation, usually referring to embroidery; and special finishes applied to joins, necklines and lower edges. The relative size of the quechquemitl and whether it is worn points front to back or to the shoulders also relates to the total design of the costume that includes the quechquemitl. Because of its relatively small size, its relationship to the other components of the costume figure in the overall effect of the quechquemitl. (The huipil on the other hand, is often quite long, and by itself creates the design.) Costume components are therefore important in the consideration of the design of the quechquemitl and will be addressed as far as available information allows. Primary and secondary source material will be used to support the descriptions of these costume components; important ethnological data will also be given to give insight into techniques, customs, etc. The use of this source material will be used in this section in order to facilitate the understanding of each quechquemitl as part of a design unit.

It is appropriate at this point to make a few general statements about motifs. The rectangular framework of weaving lends itself
to many geometric forms which appear around the world in the textiles of many cultures. There is evidence that many current motifs date to pre-Columbian times. Many motifs were no doubt adopted after the arrival of the Spanish, but there is a parallelism and a fusion of styles and it is difficult to place certain designs categorically (Johnson 1976, p. 65; Keleman 1977, p. 189). Some of the ancient geometric designs used today include the stepped fret (Aztec xicalcoliuhqui), a symbol of Quetzalcoatl (man, bird, serpent); xoncuilli, the scepter of Quetzalcoatl, representing Ursa Major; ilhuitl, or S form, a solar symbol, symbolizing the day of fiesta (see Figure 1c, p. 3); and the cross with four arms of equal length, symbolizing the four directions of the heavens. Colors were symbolic of the four directions: east, yellow; north, red; west, blue-green; and south, white. Each direction had good and bad, fertile and infertile associations (Johnson 1976, pp. 61-62).

In addition to geometric forms, including stylized floral designs (phyllomorphs), anthropomorphic and zoomorphic forms are present. A common figure in embroidered quechquemitl is a stylized vase with flowers, which, according to the Cordrys, is of European origin (1968, p. 180). There is dispute as to the origin of the double-headed eagle, which is also commonly seen.

There is no doubt that some elements are survivals or are reminiscent of ancient symbolism and art, and often some cultural or linguistic connections can be made. But in general, there is little information on the interpretation of motifs and former
cosmological meanings have been lost or reinterpreted (Johnson 1976, p. 65). With the exception of the Huichols, where some current information is available, no attempt at interpreting symbology will be made.

Design Analysis

The design analysis section will be organized as follows. Each quechquemitl will be identified by cultural group and provenience. Cultural groups included are Huastec, Huichol, Mazahua, Nahua, Otomí, Tepehua and Totonac. Dates of acquisition will be given where available. The initials ASM indicate that the quechquemitl is in the collection at the Arizona State Museum; the collection at the Museum at Texas Tech is indicated by the initials TIM.

The analysis of each quechquemitl will be presented as follows:

1. Weave. This will include structures employed in the execution of the quechquemitl, fibers and dyes used in the weaving. Dye names will be given where it is known what dyes were used; similarly, it will be indicated if yarn used was handspun.

2. Surface ornamentation of the quechquemitl. When names of embroidery stitches are ones in common usage, they will be given; otherwise, descriptive terms will be used.

3. Motifs, whether achieved by weaving or embroidery techniques, will be described.
4. Special finishes, including joins, neckline and lower edge finishes. *Randa* is a common term referring to joining stitches in Mexican textiles. *Randa* is executed in several embroidery styles.

5. Size. In the case of Type I and Type II quechquemitl worn with points front to back, the overall approximate size of the square formed will be given. For quechquemitl worn with points to the shoulders, two dimensions will be given (Figure 6).

![Figure 6. Measurement of quechquemitl.](image)

Information concerning other costume components and special cultural data will follow to complete the design analysis discussion of each quechquemitl. Locations of the quechquemitl studied are shown in Figure 7. The quechquemitl described are organized more or less by the techniques used. Of the first 10, 9 are generally classified as gauze weave; Nos. 11-17 employ the curved weave.

Figure 7. Map of Central Mexico showing locations of quechquemitl. After Cordry and Cordry, 1968, pp. 21-22.
technique (as does No. 1); Nos. 18-23 have embroidery on manta; the remainder are in various individualized techniques.

No. 1. A Nahua quechquemitl from Cuetzalán, Puebla, collected in
October, 1968 (ASM). It is a Type I quechquemitl, worn points
front to back; it is also worn on the head (Figure 8a).

This quechquemitl is woven in warp-faced plain weave in hand-
spun cotton; there is a 1/2" woven border about 1" from the other edge
woven in the curved weave technique in red handspun wool. The red is
dyed with elite (Alnus arguta or A. firmifolia). Ornamentation con-
sists of embroidery at the corners in a variety of straight stitches
in yellow, red, blue, green, orange and magenta. The two rectangles
are sewn together, the join covered with an embroidery stitch resem-
bling stem stitch in purple, red, green and yellow. The lower edge
is overcast with a multicolored embroidery stitch. The quechquemitl
forms a square of approximately 21".

No. 2. A Nahua quechquemitl from Cuetzalán, Puebla, collected in
October, 1963 (ASM). It is a Type I quechquemitl, worn points
front to back or on the head (Figures 8b, 8c).

The weave of this quechquemitl is gauze of white commercial
cotton with patterned bands of checkerboard style gauze (see p. 10)
at approximately 3" intervals. This alternates with plain weave wefts
of heavy white cotton in two or three groups of three threads each.
A diamond shaped area at the points is embroidered in wool in a
Figure 8a. Nahua quechqueremilt from Cuetzalan, Puebla (ASM).
Figure 8b. Nahua quechquemitl from Cuetzalan, Puebla (ASM)

Figure 8c. Detail of No. 8b.
variety of straight stitches in gold, green, pink, red, blue and magenta, with small yarn tassels at 3 points.

It is sewn together and the joins are covered with the same close-set stem stitch as No. 1 in red, green, pink, blue, gold and green wool, ending in a small tassel of wool at the lower edge. The lower edge is finished with a separate white cotton fringe, sewn on by hand. The fringe is made on a special little loom for this purpose or store bought in Cuetzalán (Arizpe-Schlosser and Kandt 1973, p. 108). This garment measures 21" square.

No. 3. A Nahua quechquemitl from Cuetzalán, Puebla, collected in October, 1963 (TIM). It is a Type I quechquemitl, worn points front to back or on the head (Figure 8d).

The weave of this quechquemitl is gauze in white commercial cotton with alternating rows of simple gauze and checkerboard style gauze with two or three rows of heavy thread outlining the checkerboard areas. The thread in this quechquemitl and in No. 4 is somewhat coarser than that in No. 2. Of the four quechquemitl from Cuetzalan, this one alone has no embroidery. The only ornamental addition is a 5/8" white cotton fringe sewn to the lower edge. It makes a square of approximately 18-1/4".

No. 4. A Nahua quechquemitl from Cuetzalán, Puebla, collected in October, 1963 (TIM). It is worn points front to back. It is worn for fiestas or special occasions (Figure 8e).
Figure 8d. Nahua quechquemitl from Cuetzalán, Puebla (TIM)

Figure 8e. Nahua quechquemitl from Cuetzalán, Puebla (TIM).
This quechquemitl is woven of white commercial cotton; some wefts are of artificial silk. The weave is gauze in a combination of simple gauze and checkerboard style gauze, with the rayon yarn added in the checkerboard gauze areas and in plain weave stripes, where it gives a seersucker effect. The corners are embroidered in cotton in the usual Cuetzalan fashion in red, purple, green, blue and yellow with tassels at the three outer corners. Multicolored sequins are added every inch. The joins are covered with the close-set stem stitch in red, green, gold, and blue. Sequins adorn the joins every 1" to 1" 3/4". The lower edge is finished with a 1/2" white cotton fringe. Rose colored rayon satin ribbon, 1 3/8" wide, is sewn to the neck edge and is made into rosettes which are sewn below the center front and back neck edges. The overall measurement is 20" square.

These four quechquemitl are representative of a fascinating costume tradition in the Sierra de Puebla. Until eighty years ago, the 15 km area around Cuetzalan was purely Aztecan (or Nahua) -- a very closely knit and conservative population, which clings to its native costume. "We found nowhere so distinctive a costume worn today among the Aztec Indians as that used in the region of Cuetzalan" (Cordry and Cordry 1940, pp. 19-21). Adding to the interest in the area is the charm and prettiness of the women. "One admires not only the beauty of the native dress, but also the noble bearing of the women, and their dignity as they accept observers' glances" (Arizpe-Schlosser and Kandt 1972, p. 84).
Skirts are worn very long, just clearing the bare toes . . . drawn tightly about slender hips . . . The quechquemitl is worn with a heavily embroidered blouse underneath . . . on the head a great turban of purple and green wool cordones. A tiny store basket of graceful form is always carried over one arm, adding a charming note to the distinctive costume. (Cordry and Cordry 1940, p. 36).

The quechquemitl is called a "huipil" by the Nahuas in Cuetzalan. There is definite difference in clothing for every day and the "Ropa de lujo" or fiesta dress (Arizpe-Schlosser 1972, p. 108). The circle motif on the fiesta quechquemitl is small for unmarried women and larger for married women. Quechquemitl like No. 1 are said by the Cordrys (1940, p. 44) to be an older type. It is first worn on the marriage day and thereafter for fiestas. The curved red border is called "tencolhuipil" (tentli - border; coltic - twisted). Arizpe-Schlosser and Kandt (1972, p. 103) say it is now rarely seen. Each woman owns several quechquemitl and sometimes wears several at a time; one is always worn over the headdress of cordones (Cordry and Cordry 1940, p. 48).

Skirts are of heavy black or dark blue wool (a status symbol), of heavy white cotton on the ranchos, or of white store manta. They are wrapped with one big fold at the back and many small pleats in front (Cordry and Cordry 1940, pp. 48-49). Belts for every day are of red wool, with a white pick-up design. For fiesta, many little colored stripes of wool yarn are added — as are sequins and ribbon (Arizpe-Schlosser and Kandt 1973, p. 107). The headdress (called a maxtahual), is made of mostly purple with some green yarn. It is always covered by a quechquemitl (Cordry and Cordry 1940, p. 54;
Jewelry consists of many strands of glass beads around the neck, tied with ribbon to fall at the back on young girls; two to five earrings are worn in each ear; formerly they were of handmade silver (Arizpe-Schlosser and Kandt 1972, p. 108) (see Figure 9).

No. 5. A Nahua quechquemitl from Huilacapixtla, Puebla, collected January, 1963 (ASM). It is a Type I quechquemitl and is worn with points front to back (Figure 10).

This quechquemitl is woven of white cotton in gauze weave, including bands of simple gauze, bands of checkerboard style gauze and bands of seersucker — tejido arrugado (Johnson 1953, p. 248). At the joins, the selvedge and the hemmed raw edge are butted and sewn to a lacy, openwork band 1 1/2" wide. Raw edges at the lower edge are also hemmed by hand. The square formed measures approximately 20".

This quechquemitl is shown in plate 66 on page 95 of Mexican Indian Costume (Cordry and Cordry 1968). The woman wearing the quechquemitl is also wearing a white cotton skirt. Her hair is coiled around her head in a shallow crown.

No. 6. A Nahua quechquemitl from Atla, Puebla, collected 1963-68 (TIM). This is a Type I quechquemitl, worn points front to back (Figure 11).

This weave, of white cotton, is of alternating bands of simple gauze, checkerboard style gauze outlined with heavy threads,
Figure 9. Nahua woman in the costume of Cuetzalan, Puebla. After Castello Yturbi, El traje indígena en Mexico, 1966, Plate IV.
Figure 10. Nahua quechquemitl from Huilacapixtla, Puebla (ASM).

Figure 11. Nahua quechquemitl from Atla, Puebla (TIM).
and plain weave in 1/4" stripes of two or three separated by one pick of gauze weave. The closely set plain weave bands give a very solid effect, contrasting with the laciness of the gauze. The joins are seamed by hand. Where a raw edge appears at the lower edge, it is hemmed to the outside. The square formed measures approximately 20".

This is one of three types of quechquemitl produced in Atla; all are of gauze; one is brocaded in dark red wool. Sometimes they are worn with points to the sides in Atla and in Xolotla (Cordry and Cordry 1968, pp. 87, 90). A fine example of an Atla quechquemitl, with rows of animals, humans on horseback and double-headed birds is shown in plate 58 on page 86; the Cordrys (1968, p. 96) compare the work on this garment to the fine brocade on the Zapotec Choapan huipil.

The blouse produced in Atla is an important craft item; its yokes and sleeve bands are embroidered with delightful folkloric symbols (Cordry and Cordry 1968, p. 11). A wrap-around skirt of white cotton is worn. The belt, made by the Otomíes and purchased at the Pahuatlan market, is red and white. The hair is quite long and is braided with colored ribbons (Covarrubias, Luis, n.d., No. III).

No. 7 and No. 8. Nahua quechquemitl from Xolotla, Puebla. No. 7 was collected in 1967 and is at ASM (Figure 12a). No. 8, at TIM, is not dated (Figure 12b). Both are Type I quechquemitl, worn primarily with points at the shoulders but also with points front to back.
Figure 12a. Nahua quechquemitl from Xolotla, Puebla (ASM).

Figure 12b. Nahua quechquemitl from Xolotla, Puebla (TIM).
Both quechquemitl from Xolotla are woven of white cotton in alternating bands of plain gauze, checkerboard type gauze and plain weave bands separated by one pick of gauze. These gauze weaves, particularly the one at TIM, are of a finer thread than the gauzes in the Cuatocache quechquemitl. Looped brocade is the other weaving technique employed. In No. 7 it is of red, magenta, black and gold aniline dyed wool forming diamond shapes with interior interlocking frets of gold and black. This is a version of pato de tigre (tiger foot) (Cordry and Cordry 1968, p. 177). The brocading on No. 8 is in maroon, gold, indigo blue and Mexican pink. The motifs are interlocking frets in diamond shapes surrounded by opposing fringes and triangles; there has been quite a bit of bleeding of color onto the white in this quechquemitl. Both quechquemitl are joined by butting the hemmed raw edge to the selvedge and sewing invisibly. Where a raw edge appears at the lower edges, it is turned under and hemmed by hand. No. 7 measures 13" x 34 1/2". No. 8 measures 10 1/2" x 28 1/2". Costume components were not given in any of the sources consulted.

No. 9. Half of a Tepehua quechquemitl from Huehuetla, Hidalgo, collected in April, 1965 (ASM). The rectangle was acquired along with the other half of the quechquemitl, also in the ASM collection, which is wrapped in cornhusks (see notes on stamping technique, which follows this description) (Figure 13a).
The weaves of this quechquemitl are plain weave, gauze and brocade. The plain and gauze weaves are of white handspun cotton. The brocaded areas are in aniline dyed red wool. At one end the central decorative band of back to back S forms is separated from two borders of a triangular motif by two shots of heavy wool in indigo blue. Additional ornamentation consists of embroidery in red, magenta and dark blue aniline dyed handspun wool. The embroidered motifs are stylized flower vases with eight-pointed stars or stylized flowers. This rectangle measures 12 1/2" x 22" and has four selvedges.

A special stamping technique is employed by the Tepehuas. After weaving and embroidering, the textile is washed and rinsed twice; it is then soaped for a third time, and the soap is left in the textile. Then it is folded, so that the deep red wool brocaded areas are placed directly on top of the plain background spaces. It is wrapped in cornhusks and steamed on the comal over hot coals. The steam causes the dark red color to stamp itself unclearly on the plain light areas (Cordry and Cordry 1968, pp. 96-99; plates 67, 68, 69).

No. 10. A Tepehua quechquemitl from Huehuetla, Hidalgo, no date given (TIM). This quechquemitl is a Type I quechquemitl with points worn front to back; it is also worn with points at the shoulders and as a head covering (Figure 13b).
Figure 13a. One half of a Tepehua quechquemitl from Huehuetla, Hidalgo, (ASM).

Figure 13b. Tepehua quechquemitl from Huehuetla, Hidalgo, (TIM).
The weave structures of this quechquemitl are plain and gauze weaves of white handspun cotton and brocade executed in dark red aniline dyed wool. Two heavy threads of indigo blue wool separate geometric design motifs, as in the single quechquemitl strip. Embroidery at the points of the quechquemitl is done in cross-stitch in dark red, indigo blue, green, and gold wool. Motifs are stylized vases with eight-pointed "flowers." The rectangles have been typically folded and stamped; the impression of the red areas on the white are indistinct. The two rectangles, each with four selvedges, are joined by machine stitching to a 2 7/8" wide blue rayon satin ribbon, which is carried from one side to the other — not cut. The neckline is finished in a heavy embroidery stitch in indigo blue wool. In the white areas, the stitch resembles a chain; in the brocaded areas it is a buttonhole stitch. The quechquemitl forms a square of approximately 17 1/2".

Tepehua women from Huehuetla wear a wrap-around skirt of white cotton with a machine embroidered border and a short sleeved blouse with a square neck, also machine embroidered (Mapelli Mozzi and Castello Yturbi 1968, p. 83). Their belt is an exceedingly handsome geometric patterned belt of heavy black wool and white cotton 6" x 98" (Cordry and Cordry 1968, p. 139; plate VIa). They braid their hair with strips of pink wool; the quechquemitl is also used as a head piece (Mapelli Mozzi and Castello Yturbi 1968, p. 84; plate XXIV).
Nos. 11 and 12. Two Otomi quechquemitl from San Pablito, Puebla. The one at ASM dates to around 1940; the one from TIM was collected in 1960. They are nearly identical; they are Type I quechquemitl, worn with the points at the shoulders (Figures 14a and 14b).

The weave of these quechquemitl is the curved weave technique, forming both a warp-faced and a weft-faced plain weave. The area near the neck edge and at the lower border is of white commercial cotton, sometimes respun to make it the desired coarseness (Christensen 1947, p. 124). The curved weave woolen bands are of aniline dyed magenta wool, handspun in Texcoco, Mexico and purchased by the Otomíes (Christensen 1947, p. 240). This band is divided in the center by a narrow stripe of black and orange wool. The white sections near the neckline are embroidered in fine, closely set cross-stitch in black and dark red-purple (ASM) or indigo blue and red orange wool (TIM). Motifs are eight-pointed stars, stylized flower forms, and stylized vases with flowers. Each piece has four selvedges. At the joins, the selvedges are butted and invisibly sewn. A triangular design in cross-stitch decorates the lower white borders near the joins. No. 11 measures 16 1/2" x 34". No. 12 measures 17 1/4" x 38".

Other quechquemitl are woven in San Pablito, with narrower woolen bands and different motifs (anthropomorphic, zoomorphic, geometric) (Christensen 1948, p. 129 and plates 20-27; Cordry and
Figure 14a. Otomi quechquemitl from San Pablito, Puebla (ASM).

Figure 14b. Otomi quechquemitl from San Pablito, Puebla (TIM).
According to Christensen (1947, p. 129) commercial cotton is taking the place of the handwoven cotton material, but a handwoven woolen border is inserted. This strip is not woven with a curve, but is cut and sewn. With this quechquemitl is worn a skirt of white wool or a skirt of five strips of cloth — three of white cotton (or wool for the gala skirt), with an eight inch dark blue wool band at the bottom and a band of blue plain cotton at the top (Cordry and Cordry 1968, pp. 101 and 105). An embroidered blouse and a wide red woolen belt are also worn (Johnson 1971, p. 215). A long woolen yarn hair cord with beads is wrapped around a single braid (Cordry and Cordry 1968, p. 118; plate 80, p. 117). Figure 14c shows the San Pablito quechquemitl with the blouse and belt work in the pueblo (TIM).

Nos. 13, 14, and 15. These are Otomi quechquemitl from Santa Ana Huetialpan, Hidalgo. All three were collected in January and February of 1963. No. 13 is in the ASM collection. The others are at TIM. They are Type I quechquemitl and are worn with the points at the shoulders or folded into a sort of hat. (Figures 15a and 15b).

These quechquemitl are woven in the curved weave technique forming both a warp-faced and a weft-faced plain weave. All three have an upper border 3 3/4" wide of commercial white cotton and a 1/8" strip of white cotton at the lower edge. The lower borders are as follows: 13 has a 7 1/8" border of handspun, aniline dyed red wool
Figure 14c. Otomí quechquemitl, blouse and belt from San Pablito, Puebla (TIM).
Figure 15a. Otomi quechquemitl from Santa Ana Huetlalpan, Hidalgo (ASM).
Figure 15b. Two Otomi quechquemitl from Santa Ana Huetlalpan, Hidalgo (ASM).
with thin stripes of dark colored wool in the center, at both borders, and 1/2" in from each border. No. 14 has a lower border of handspun, aniline dyed Mexican pink wool with olive green stripes at the edges, in the center, and 1/2" in from the edges. No. 15 has a lower border of handspun, aniline dyed red wool with olive green stripes at the edges, 3/8" in from the edges and three at approximately 1-3/4" intervals. Each quechquemitl strip has four selvedges. The joins are accomplished with a darning stitch, four inches wide, made on the bias, mostly in wool matching the border. No. 13 also has stripes of blue and green wool. Nos. 14 and 15 have stripes of olive green. The technique for this join is pictured in Mexican Indian Costume (Cordry and Cordry 1968) in plate 171, p. 219. The neck edge of No. 13 is overcast with a blanket stitch in blue green, orange and violet wool. This stitch is bordered with several rows of plain embroidery. Dimensions of the quechquemitl are: No. 13, 10 7/8" x 23"; No. 14, 11 1/2" x 25"; and No. 15, 11 1/2" x 22".

The very small quechquemitl from Santa Ana Hueytlalpan is truly a "neck garment." It takes two days to weave for a good weaver, besides the time spent in preparing the wool and setting up the loom. The joining takes one day (Christensen 1947, pp. 132-33). This quechquemitl is often worn with the corners tucked in as a sort of hat. The skirt worn is a blue wrap-around skirt of factory cotton, previously of blue wool with a white cotton band at the bottom. A commercial embroidered blouse is worn. A wide, long wool sash in red
with a blue and purple check at the border is woven in the village
(Mapelli Mozzi and Castello Yturube 1968, p. 89; plate XXVI). A
belt examined at the Museum at Texas Tech measures 9 1/4" wide and
is 99 1/2" long; it is of dark red wool and the stripes at the edges
are of dark blue, green, pink and white. It is finished with plaited
fringes. A similar belt accompanies the costume for San Pablito,
Puebla and is probably woven at Santa Ana (Cordry and Cordry 1968,
p. 217). The hair is worn in two braids, with a different color of
ribbon worked into the end of each. Young girls wear many strings
of papelillo beads. Sometimes a curious pair of long extra sleeves,
held on by tapes across the chest and back are worn (Cordry and
Cordry 1968, pp. 219-221; plates 172-174) (see Figure 16).

No. 16. A Totonac quechquemitl from Rancho "La Ceiba," near
Mecapalapa, Puebla, was collected January 1, 1963 (ASM). It
is a Type I quechquemitl, worn points front to back (Figure
17a).

This quechquemitl utilizes warp-faced plain weave in white
handspun cotton with a wide band at the neck edge and a narrow one at
the lower edge. Two bands in a curved weave technique are in dark
red, yellow and green wool. Looped brocade between the two curved
weave bands is in wool in red, pink, orange, green and blue. The
white area between the upper curved weave band and the neck edge is
heavily embroidered in wool in navy blue, pink, green, gold, red and
black. The motifs in the brocaded area are, in the broadest terms,
Figure 16a. Otomi woman in the Costume of Santa Ana Huetlalpan, Hidalgo.

Figure 16b. The Santa Ana Huetlalpan quechquemitl worn as a hat.

After Castello Yturbi, *El traje indigena en Mexico*, 1966, Plate XXVI.
stepped frets, since color is carried from one six-sided figure to the
next (Cordry and Cordry 1968, p. 174). In the embroidered area the
motifs are geometricics and stylized vases with flowers (navy blue). The
join is a fancy interlaced randa stitch in red and navy blue wool.
This quechquemitl forms a square measuring 20".

No. 17. A Totonac quechquemitl from Pantepec, Puebla, was collected
in 1965 (TIM). It is a Type I quechquemitl, worn points front
to back (Figure 17b).

This quechquemitl is woven in warp-faced plain weave of white
handspun cotton — 6 1/4" at the neck edge and 1 1/2" at the lower
ege. Curved weave bands 7/8" and 1" wide are of wool in red, green
and gold. Between the curved weave bands is a looped brocaded pattern
in green, gold, blue-green, pink and red. The white area near the
neck edge is brocaded in green, gold, blue-green, pink and red except
for a 5" square at the point which is embroidered in wool in the same
colors with the addition of navy blue. Motifs in the brocaded areas
are interlocking frets (see No. 16). The embroidered area contains
a stylized flower vase design in navy blue and other floral motifs.
The join is a fancy randa in two colors of red wool, making a space
5/8"-1" wide between the two rectangles; it is not extremely well-
worked. The neckline is overcast in navy blue and red wool. Two
of the lower edges are hemmed, one on each strip; one assumes a raw
edge or an attempt to obtain a certain size. The quechquemitl forms
a square of approximately 19". With this quechquemitl is worn a
Figure 17a. Totonac quechquemitl from Mecapalapa, Puebla (ASM).

Figure 17b. Totonac quechquemitl from Pantepexc, Puebla (TIM).
wrap-around skirt of white cotton with machine embroidered borders (Cordry and Cordry 1968, p. 111; plate 133, p. 173). Some wear the handsome Tepehua belt woven in Huehuetla (see No. 10); conservative Totonac women wear a red wool belt (Cordry and Cordry 1968, p. 139). A quechquemitl very similar to the Totonac one but made and worn by the Tepehua from Pisa Flores, Hidalgo and with the same shoulder decoration as the Huehuetla, Hidalgo quechquemitl is shown in plate IVa of *Mexican Indian Costume* (Cordry and Cordry 1968).

No. 18. An Otomí or Nahua quechquemitl from Acaxochitlán, San Francisco Chapantla, Hidalgo. It was purchased about 1920 from John Spratling (Fred Davis Collection). It is a Type I quechquemitl, worn with the points front to back (Figure 18).

This quechquemitl is handwoven of white commercial cotton in warp-faced plain weave. A narrow band 1 3/4" from the outer edge is rendered in the curved weave technique. The quechquemitl is heavily embroidered with aniline dyed wool in pink, gold and navy blue. Many motifs are used. The border consists of four different patterns: facing birds with stylized trees; back to back birds with stylized trees and flowers; interlocking frets in a triangular design; and interlocking frets in a diagonal design. Other motifs include stylized vases with bouquets; stylized flowers; birds; other animals; anthropomorphic figures; and a large eight-pointed star, which is obscured by a large hole in the textile. The joining seams have been sloppily repaired. They appear to have originally been joined with the raw
Figure 18. Otomí or Nahua quechquemitl from Acaxochitlán, Hidalgo (ASM).
edge turned under and finished with a blanket stitch and then possibly butted to the selvedge, or lapped and sewn with a decorative stitch. No costume information was found in the sources available.

No. 19. A Huastec quechquemitl from a rancho near Tancanhuitz, San Luis Potosí, collected in December 1963 (ASM). A Type I quechquemitl, it is worn with the points front to back (Figures 19a and 19b).

This quechquemitl is made of commercial white cotton manta (a common term in Mexico, referring to unbleached cotton cloth). Its ornamentation consists of embroidery in very fine cross-stitch, almost resembling needlepoint. Colors of the cotton embroidery thread are faded red, orange, green, gold, purple and yellow. Motifs are numerous and include stylized flower vases and bouquets of several types; other florals; numerous birds, including double birds facing flowers; eight-pointed stars; insects or butterflies; one rabbit; one dog; and deer. The joins are accomplished with figure-eight satin stitch randa in red, gold, green and purple, carefully done so that it does not interrupt the flower vase motif. The neckline is finished in a satin embroidery stitch approximating the randa stitching, ending in ornamental points forming triangles at the neck. The square formed is approximately 18 7/8".
Figure 19a. Huastec quechquemitl from Tancanhuitz, San Luis Potosí (ASM).

Figure 19b. Detail of 19a.
No. 20. A Huastec quechquemitl from a rancho near Tancanhuitz, San Luis Potosí, collected in December, 1963 (ASM). It is a little girl's quechquemitl with the name "Catarina Perez de Narro" inside. It is Type I quechquemitl worn with the points front to back (Figure 19c).

This very small quechquemitl is made of white commercial cotton manta. The embroidered ornamentation is of aniline dyed wool and some cotton in magenta, orange, gold, green and red. Motifs include geometrics, stylized florals, stylized flower vase and bouquet, and birds. The joins are covered with randa in a long cross-stitch, not interrupting the embroidery on the body of the quechquemitl. The neckline edge is turned in and a figure-eight satin stitch is worked close to the neck, with a cast over cross-stitch forming triangles at the neck edge. The lower edge is both selvedge and hand turned hem. The square formed is approximately 14 5/8".

No. 21. A Huastec quechquemitl from Tancanhuitz, San Luis Potosí, collected in 1963 (TTM). It is a Type I quechquemitl and is worn with the points front to back (Figure 19d).

This quechquemitl is constructed of commercial white cotton manta. Embroidery in cross-stitch provides the ornamentation. Cotton yarns in red, orange, pink, gold, green, and blue are used. Motifs include stylized vases with flowers (at the joins), other stylized flowers, eight-pointed stars, butterflies, birds, dogs, and kangaroos (!). A 5/8" wide satin stitch randa in red, green, orange, gold, and
Figure 19c. Huastec quechquemitl from Tancanhuitz, San Luis Potosí (ASM).

Figure 19d. Huastec quechquemitl from Tancanhuitz, San Luis Potosí (TTM).
pink covers the joins — again not interrupting the cross-stitch design. It is interesting to note that one length of this quechquemitl is pieced with a strip about 2-3/4" long to make it the desired size. The neckline is finished in a figure-eight satin stitch overcasting the neck edge to form triangles. The raw edges at the joins and lower edges are turned in and finished by hand with a running stitch. A handmade wool fringe 1 1/4" wide in orange, gold, purple, and green is sewn by hand to the outer edge of the quechquemitl. The square formed measures approximately 19 1/2" including fringe.

The quechquemitl worn by the Huastecs of San Luis Potosi, handwoven until twenty years ago, is called a quesquen, and different towns can be identified by motifs used. Often a name and date is included in the embroidery if the wearer is literate. Orange, rose, purple and green are commonly the colors used (Mapelli Mozzi and Castello Yturbi 1966, pp. 83-84). A wrap-around skirt of white muslin or black commercial poplin which comes a little below the knees is worn. There are four large pleats in front, and the back is plain; skirts were formerly embroidered like the quechquemitl for fiestas, but these are now very rare. The sash is ikat dyed and woven by the Otomi of Toliman Queretaro. A blouse of flowered commercial percale or red or blue imitation silk, with long full sleeves and a high collar ends at the waist with a ruffle which covers the sash. The hairdress is derived from a pre-Hispanic headdress, as can be confirmed by the small archaeological heads found in the region. The hair is coiled around a ribbon made of skeins of yarn in rose, purple,
orange and green, which is enlarged by means of a reed frame called a petó. An imitation silk handkerchief, which hangs behind, is linked in to the top of the headdress. Glass beads are also worn (Mapelli Mozzi and Castelló Yturbié 1966, pp. 83-84; plate XXVII). (Also see Cordry and Cordry 1968; plate 85, p. 123; plate III; plate 58, p. 89; plate 146, p. 186.)

No. 22. A Nahua quechquemitl from Cuatlamayáñ, San Luis Potosí, date unknown (ASM). It is a Type II quechquemitl worn points front to back (Figure 20).

This quechquemitl is fashioned of commercial white cotton manta. It is embroidered in handspun or respun wool in a modified raised or looped cross-stitch in aniline dyed colors of pink, green, gold, and red. Motifs include a zig-zag border, eight-pointed stars, squared scrolls, S forms (ilhuitl), trees of flowers, stylized vases with flowers, birds, and one long-tailed quadruped. The joins are machine seamed and the neckline and lower edges are machine hemmed. The square formed is approximately 27".

An excellent color plate (Cordry and Cordry 1968, plate VII) shows an old Nahua woman wearing a similar quechquemitl of extremely good quality. She also wears glass beads, earrings and the headdress described below, covered with what appears to be a scarf of artificial silk. The skirt worn with this quechquemitl is a white cotton wrap-around tubular skirt of manta, which used to be handwoven (Cordry and Cordry 1968, p. 114). The headdress consists of a sausage-like
Figure 20. Nahua quechquemitl from Cuatlamayan, San Luis Potosí (ASM).
tubular crown, made of banana tree bark, 1 1/2" in diameter, wrapped with colored cotton cloth and/or commercial wool tape (Cordry and Cordry 1968, p. 128). Black glass bead bracelets are given on the wedding day by the mother-in-law, by custom (Cordry and Cordry 1968, p. 152).

No. 23. A Huichol Quechquemitl from El Limón, Nayarit, collected in November, 1937 (ASM). It is a Type II quechquemitl, worn points front to back (Figure 21a). Sometimes it is worn as a headdress under a man's hat (Cordry and Cordry 1968, p. 210; plate 55, p. 85).

This quechquemitl is constructed of commercial white cotton manta. The ornamentation is embroidery -- both cross-stitch and straight-stitch -- in respun wool and cotton, primarily in red and black, with gold, grey, pink and purple. Motifs include eight petaled "toto" flowers; random bands of geometric motifs (unfinished); a heart; zoomorphic figures, including deer, dogs or coyotes, and horses. It is joined by butting the edges together and sewing them invisibly. It is noteworthy that a zig zag embroidery stitch on the fold simulates a join. The lower edges and the cut portion of the neck edge are hemmed by hand. It is very large, measuring 28" square.

No. 24. A Huichol quechquemitl from Tepíć, Nayarit, collected in 1951 (TIM). It is a Type II quechquemitl, constructed of one piece of cloth folded and sewn (Figure 21b).
Figure 21a. Huichol quechquemitl from El Límon, Nayarit (ASM).

Figure 21b. Huichol quechquemitl from Tepic, Nayarit (TTM).
This quechquemitl is made of commercial white cotton manta. Like No. 23, it receives its ornamentation by embroidery. Cotton in red, green, blue, gold, orange and a very small amount of Mexican pink is used. Motifs include eight pointed "toto" flowers; eight pointed crosses; fret design in a maze form; stylized flowers in the major large border design; diamonds, scrolls and zigzags in "unfinished" linear forms. The join is identical to No. 23. The neckline is not finished where cut and the hem is bound by hand with a commercial printed cotton, predominately red. It forms a 24" square.

According to some anthropologists, the Huichols are the only major group in Meso-America who preserve their aboriginal religion and world view intact, with only the most superficial European admixture (Johnson 1976, p. 60). We may therefore interpret some of their motifs. Some designs are left incomplete on purpose; the unfinished line "represents life and that is left unjoined, lest the maker end her own life in completing the pattern" (Lumholz 1904, Vol. 1, pp. 211-12). Belts and hair ribbons are considered as water serpents -- prayers to bring on rain. Animals (deer, squirrel) express protection of the deity they represent (Lumholz 1904, Vol. 1, p. 231). The toto flower, a little white flower which grows in the wet season, is a symbol of rain and corn (Johnson 1976, p. 60). The religious life of the Huichols is very important in all of their art work, including weaving and embroidery (Berrin 1978, pp. 49-50).
In addition to the quechquemitl, called "ricuri" by the Huichols, and sometimes made of two red or blue bandanna handkerchiefs sewn together (Mapelli Mozzi and Castello Yturbi 1968, p. 87; plate XXIX), the women's costume consists of a short, wide, long-sleeved blouse and a gathered skirt, both of manta and both embroidered (Cordry and Cordry 1968, pp. 209-210). Before 1900, handwoven wool quechquemitl were worn with no blouse beneath (Cordry and Cordry 1968, p. 203). Two fine wool quechquemitl are pictured in Berrin's book, The Art of the Huichol Indians (1978, plates 67 and 68). Hair is sometimes tied in back with a twist of handwoven wool and cotton ribbon tied on top of the head. Ropes of many strings of small blue and white beads and other beads in combination with seeds, shells or buttons are worn. Beadwork earrings are characteristic. Huichol women paint their faces with red powdered paint mixed with grease (Cordry and Cordry 1968, p. 210). It is noteworthy that the Huichol men's costume is more elaborate than that of the women.

No. 25. A Nahua quechquemitl from Rancho Alahualtitla, near Chicontepec, Vera Cruz. This is a Type I quechquemitl, worn with points front to back (Figure 22). It was collected in 1977, from Ruth Lechuga (ASM).

The weave, which serves as a background for the ornamentation, is a plain, warp-faced weave in white cotton. The ornamentation is tufted embroidery in wool in rust, red, pink, blue, green, yellow, and gold. The neck and lower edges are finished with a commercial cotton
border in a rust color which is sewn by hand. The joins are hand sewn. This very small quechquemitl measures approximately 15 1/2" square. The Cordrys (1968, p. 88) describe a similar quechquemitl from Sasaltitla, Vera Cruz with a red wool pile, but no information concerning costume components is given.

No. 26. An Otomi quechquemitl from Tolimán, Querétaro, no date given (TTM). It is a Type I quechquemitl, worn points front to back (Figure 23). They are also worn loosely over the head for protection from the sun (Cordry and Cordry 1968, p. 91; plate 60, p. 92).

The weave of the quechquemitl is warp-faced plain weave. It is executed in ikat dyed artificial silk. The ikat stripes are either dark indigo blue and white or yellow and green. There are solid color stripes of lavender and pale orange.

Ikat is accomplished by tying sections of the warp threads, thereby forming a resist to the dye; the warp threads are then untied and placed on the backstrap loom. At the join, the raw edge is turned under and finished with a blanket stitch which forms a decorative running stitch on the right side; in addition, it is machine stitched. This edge and the selvedge are butted to the decorative randa which is a lacy band worked in orange artificial silk. Where a raw edge appears at the lower edge, it is finished the same way as the raw edge at the join. It is curious that there is machine stitching in addition to the considerable work in
Figure 22. Nahua quechquemitl from Chicotepec, Vera Cruz (ASM).

Figure 23. Otomí quechquemitl from Tolimán, Querétaro (TIM).
executing the decorative buttonhole stitch. The quechquemitl forms a square of approximately 21".

These ikat dyed quechquemitl are now nearly extinct. The Otomíes of Querétaro originally produced them in silk. The quechquemitl examined is compared to an all silk one by the Cordrys (1968, p. 91). Belts in the ikat technique are also woven in Tolimán, of cotton and of silk; they are part of the costume of the women of Tancanhuitz, San Luis Potosí (Cordry and Cordry 1968, p. 140). Excellent bags are also woven in the area; one is pictured in plate 109, p. 147 of the Cordry book. With the quechquemitl is worn a white cotton blouse with a plain gathered medium-low round neck and a wrap-around skirt of dark-colored cotton (Cordry and Cordry 1968, pp. 91-93).

No. 27. A Nahua quechquemitl from Acozochitlán, Santa Anita Tzatzacualatl, Hidalgo, was collected in 1963 (ASM). It is a Type I quechquemitl and is worn with points front to back (Figure 24).

The weave is a plain warp-faced weave. The warp is of hand-spun indigo blue aniline dyed wool with thin stripes of white cotton every 1/4". The weft (invisible) is of white cotton. At the join, the raw edge is turned under and hemmed with a blanket stitch in red cotton thread which forms a decorative running stitch on the right side. The two edges are then butted and joined with a zig-zag embroidery stitch in red cotton. The neckline is finished in a red
Figure 24. Nahua (or Otomic) quechquemitl from Acozochitlán, Santa Anita Tzazacual, Hidalgo (ASM).
cotton blanketstitch, as is part of the lower edge. The quechquemitl forms a square of approximately 23 1/2". It is simple, but beautifully woven.

The Cordrys give only the briefest mention to this quechquemitl (1968, p. 88), and several other references indicate that its identification as Nahua may be erroneous. A photograph on page 9 of "Mexico's Many Costumes," by Elizabeth S. Cuellar (1976) shows two quechquemitl identical to No. 27 and also from Santa Anita Zacuala worn by two Otomí. They are described as being of blue and white wool. The mother and daughter are shown wearing the quechquemitl with points front and back. They are also wearing black wrap-around skirts and wide, boldly patterned belts with white backgrounds.

Another very similar quechquemitl is shown in The Four Suns by Jacques Soustelle (1967, p. 97). It is identified as an Otomí quechquemitl from San Bartolo Morelos, Mexico. The Otomíes typically produce "a fabric having small parallel stripes of various colors," according to Mapelli Mozzi in El traje indígena de México (1966, p. 29). Plate VII by Castello Yturbide in the same volume, shows a quechquemitl which closely approximates #27 and is shown with the points worn to the shoulders. In plate 21 of "El quechquemitl y el huipil" (Johnson 1953), similar quechquemitl are shown on two Otomí women from Zacamilpa, Valle de Toluca.
No. 28. A Mazahua quechquemitl from San Miguel Tenoxtitlan, Mexico, not dated (ASM). This is a Type I Quechquemitl, worn points over the shoulders (Figures 25a and 25b).

This quechquemitl is woven in warp-faced plain weave in dark navy blue aniline dyed handspun singles wool. Embroidery at the neckline is in cross-stitch in white commercial cotton. The motif is a stylized rose pattern. The joins are executed by turning under the raw edge as in No. 27, executing the blanket stitch which forms a decorative running stitch on the right side in white. The two edges are then joined with a geometrically patterned border of dark blue wool and white cotton -- very cleverly and skillfully done. The neckline is finished with an overcasting stitch forming white triangles against the dark blue. A handmade fringe of white cotton, with the base executed in a countered twining technique (Emery 1966, p. 201, Figure 307) is added to the lower edge. The quechquemitl measures 14" x 38 1/4".

The dress of the Mazahuas has greatly deteriorated, according to the Cordrys (1968, p. 91). However, when traditional dress is retained, the skirt is of wool, composed of two lengths in stripes of alternating colors, at times with each length in a different color. Many times the yarn is dyed with vegetable dyes. It is worn with many pleats and held in place with a richly designed wool belt -- different in each pueblo and according to individual taste (Lechuga 1982, pp. 208-209); such a skirt is pictured in plate 59, p. 90 of Mexican Indian Costume (Cordry and Cordry 1968).
Figure 25a. Mazahua quechquemitl from San Miguel Tenoxtitlan, Mexico (ASM).

Figure 25b. Detail of Figure 25a.
The Arizona State Museum possesses five fine Mazahua quechque-mitl from other collections which were examined by this researcher. Their dates range from 1910 to 1978. All are in warp-face plain weave in wool or cotton. Two wool ones are in solid, dark colors with just a little cross-stitch embroidery at the neck edges and shoulders or the join in a stylized floral (rose) motif. The three striped ones, though in different color schemes, have a similar striped pattern, with the stripes becoming wider and more dominant toward the outer edge of the quechquemitl. These are embroidered in all over cross-stitch designs — some very finely worked. One is done sampler style, probably by a child. All but one have a hand-made fringe similar to that in No. 28, in the embroidery colors of the quechquemitl. All have ingenious joins and neckline finishes; most are of the type in No. 28. In fact, the lighter colors used give a clue to the techniques used in the dark blue quechquemitl examined.
CHAPTER 3

CONCLUSIONS

Some generalizations may be made about the quechquemitl examined. The presence of quechquemitl using complicated weaving techniques seems to be concentrated in and near the Sierra de Puebla. Counted among these are the gauzes of the Nahua of Cuétzalán, Huilacapixtla, Atla, and Xolotla, Puebla and the Tepehua of Huehuetla, Hidalgo. The curved weave technique appears in wide bands in the Otomí quechquemitl of San Pablito, Puebla and Santa Ana Huetlalpan, Hidalgo and in the Totonac quechquemitl of Mecalapa and Pantepec, Puebla. Narrower bands of curved weave are employed in quechquemitl by the Nahua of Cuétzalán and Acaxochitlán. Several of the quechquemitl from this region add brocade to gauze (Xolotla, Huehuetla) or to curved weave (Mecalapa and Pantepec). The use of added surface ornamentation (embroidery) in quechquemitl with complex weaves affects the overall design in individualistic ways. The Cuétzalán quechquemitl is distinguished by the small amount of embroidery done mostly in small straight stitches as an enhancement of the weave; the placement of the embroidery at the points of the quechquemitl, combined with the addition of the tiny yarn tassels, provides focal interest to the garment. The cross-stitch designs on the Huehuetla (Tepehua) quechquemitl are surrounded by areas of white; their placement near the point of the quechquemitl gives them a focal importance. The
bolder cross-stitch which encrusts the Otomi quechquemitl from San Pablito and the two Totonac quechquemitl provides a different, overall design impact. The quechquemitl from Acaxochitlan (Nahua or Otomi) is almost sampler-like in its many embroidered motifs, and its curved weave band is almost lost in the design.

Surface design is important in the embroidered Huastec quechquemitl from Tancanhuitz and the Nahua quechquemitl from Cuatlamayán — both in San Luis Potosí, and the Huichol quechquemitl from El Limón and Tepic, Nayarit. In this case, each cultural group's style is easily identified. The use of the same colors and the joining randa as an integral part of the overall embroidery design set the Huastec quechquemitl apart. Large areas of background combined with a precise geometric style impart a certain delicacy to the Huichol textiles.

Many of the expert weavers also produce other notable textiles. Examples are: skirts from Cuetzalan and San Pablito; the Atla blouse; and belts from Cuetzalan, San Pablito and Huehuetla. The belt from Tolimán, Querétaro is also notable, as are the bags and ikat quechquemitl produced there by Otomíes.

Decorative joins occur in the quechquemitl from Cuetzalan (Nahua), Pantepec and Mecalapa (Totonac), Santa Ana Huetlalpan (Otomí), Tancanhuitz (Huastec) and San Miguel Tenoxtitlan, Mexico (Mazahua). The joins on the Nahua and Huastec garments are chiefly decorative. The structural joins on the Totonac, Otomí and Mazahua quechquemitl are functional as well as decorative; all employ complex
needlework techniques. In the Totonac quechquemitl, the join is part of an overall complexity of curved weave, brocade and embroidery. The join of the Otomi quechquemitl is integrated with the curved weave; it serves as a focal point in the simple design. The intricate join of the Mazahua quechquemitl echoes the equally fine neck finishing and combines with the embroidered white rose motif at the neckline and the white fringe at the lower edge to give design impact to the plain weave textile.

Of the 28 quechquemitl examined, 20 are in the size range near 20" square, the range being from 17 1/2"-23" square; all are Type I. The three large quechquemitl -- the Huichol (28" and 24") and the Nahua from Cuatlamayán (27") are also the only Type II quechquemitl. Very small are the three from Santa Ana Hueytlalpan (Otomí), the curious tufted Nahua quechquemitl from Vera Cruz, and the child’s garment from Tancanhuitz (Huastec).

The curved weave Otomi quechquemitl from San Pablito and Santa Ana Hueytlalpan and the Mazahua quechquemitl from the State of Mexico are worn with the points to the shoulders; those from Huehuetla and Xolotla are worn both with the points at the sides and to the front. The rest are worn points front to back.

The impact of the quechquemitl as part of the total costume is evident in most of the groups about which costume information is available. Notable among these are the Huastecos of Tancanhuizt, the Otomíes of Santa Ana Hueytlalpan and of San Pablito, and especially the Nahua of Cuetzalan.
Textile scholars and others may objectively and subjectively view quechquemitl as individually well-designed and executed objects. They may also analyze their impact as part of a total costume which reflects the customs of the groups wearing them. If the rich textile traditions of Mexico are not lost to posterity, it will be due in a large part to collections such as the Cordrys'.

Continuing study of other items of costume in the Cordry collection and in other collections would be of use in furthering interest in Mexican textile traditions. Items such as huipiles; skirts; and belts, bags and carrying cloths are all worthy of extensive study. Field work providing up to date information on the wearing of traditional dress would also be an important addition in this area.
APPENDIX A

COMPONENTS OF COLLECTIONS STUDIED

79
<table>
<thead>
<tr>
<th></th>
<th>ASM</th>
<th>TIM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costumes (complete)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>men's</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>women's</td>
<td>12</td>
<td>55</td>
</tr>
<tr>
<td>children's</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Bags</td>
<td>43</td>
<td>1</td>
</tr>
<tr>
<td>Belts</td>
<td>49</td>
<td>3</td>
</tr>
<tr>
<td>Cloths; carrying, head, etc.</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Huipiles</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>Quechquemitl</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous*</td>
<td>26</td>
<td>11</td>
</tr>
</tbody>
</table>

*This category at ASM consists of costume items; at TIM it is spinning and weaving paraphernalia.

Most of the items in the collection at TIM are organized as parts of complete costumes.

<table>
<thead>
<tr>
<th>Cultural groups represented by quechquemitl</th>
<th>ASM</th>
<th>TIM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huastec</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Huichol</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mazahua</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Nahua</td>
<td>6 (8)*</td>
<td>4</td>
</tr>
<tr>
<td>Otomi</td>
<td>2 (4)*</td>
<td>4</td>
</tr>
<tr>
<td>Tepehua</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Totonac</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*Two quechquemitl are in doubt and may be Nahua or Otomi.
APPENDIX B

LETTER EXAMPLES
31 January 1985

Dear Sirs:

This is an inquiry to learn what items of Mexican Indian Costume you have in your collection and whether you have pictures and descriptive material related to the collection. I am conducting a study involving a design analysis of quechquemitls as a thesis for my Master of Science degree in Clothing and Textiles at the University of Arizona. My goal is to present a detailed comparative analysis of the design components of a representative number of quechquemitls, increasing the knowledge and appreciation of these garments as well as that of Mexican Costumes in general. The study should be useful to textile scholars, craftspeople, designers, art historians and anthropologists. I hope to examine, photograph, and sketch as many examples as I can to complete the study adequately.

I would appreciate very much your participating in the study. I have included a brief questionnaire based on the categories listed by the Arizona State Museum for their portion of the Cordry Collection of Mexican Costume. As part of my report a listing of all costume components in the participating museums will be listed. I have also included a brief consent form (release) for you to sign should you agree to participate. A stamped, self-addressed envelope is enclosed for the return of the questionnaire and consent form. The only cost to you will be your time spent in answering the questionnaire, granting an interview, and allowing the researcher to examine, photograph and sketch selected objects.

Based on the return of the questionnaires and my findings from the Arizona State Museum collection, I plan to call for appointments and make travel arrangements in the very near future.

Any way you can help is greatly appreciated, and any results of the study will be made available if you wish a copy. As time is an important factor towards the completion of any degree, I would appreciate your consideration of this request at your earliest convenience.

Very truly yours,

Elouise A. Evans
Masters Candidate

Naomi A. Reich, Ph.D. --
Professor, Clothing and Textiles

EAE:NAR:jm
Enclosures
Ms. Nora Fisher  
Museum of International Folk Art  
P.O. Box 2087  
Santa Fe, New Mexico 85704-2087

Dear Ms. Fisher:

This is in reference to a letter and questionnaire I sent on January 31, 1985 concerning the thesis for my Master of Science degree at the University of Arizona. The title of the thesis is "A Design Analysis of Quechquemîi in the Cordry Collection."

I appreciate the problems involved in examining your collection and I thank you for your reply and for the information you sent. I have examined the portions of the collection contained at the Arizona State Museum and at the Museum at Texas Tech and I am very near the completion of the work on my thesis.

At this time I am requesting some further information. It would be very helpful to me if you could provide any of the information on the enclosed questionnaire, relating only to the Cordry collection. Knowing just the number of quechquemîi in your collection is of importance for this study. Thank you very much for any help you can give.

Very truly yours,

Elouise A. Evans  
Masters Candidate

Naomi A. Reich  
Professor, Clothing & Textiles

Enclosure

des
APPENDIX C

MUSEUM QUESTIONNAIRE FORM
Museum Questionnaire on Mexican Indian Costume

Name of Institution:

1. Please indicate the numbers of the following items contained in your collection
   a. bags
   b. belts
   c. childrens costumes
   d. complete adult costumes
   e. cloths - carrying, head, etc.
   f. huipiles
   g. quechquemitls
   h. miscellaneous

   1) blouses
   2) skirts
   3) trousers
   4) shoes
   5) other (please list)

2. Re: quechquemitls. Please give the number of quechquemitls you have from each of the following groups. If convenient, please also list the locality.
   a. Zapotec
   b. Zoque
   c. Huichol
   d. Mazahua
   e. Nahuas
   f. Otomi
   g. Huaxtec
   h. Tepumae
   i. Totonac
   j. Other

3. Please indicate if there are any restrictions on studying or photographing your collection, what the procedures are for gaining access to the material, and who should be contacted for an appointment.
SUBJECT CONSENT FORM

Title of Project: A Design Analysis of Quechquemitls From The Cordry Collection

I am requesting your voluntary participation in the completion of this questionnaire.

If you participate, please answer as many of the questions as you are able. You do not have to answer all of the questions. Completion of these questionnaires will indicate consent for your organization to be a willing participant and to be named in the results of this study and in a possible subsequent publication. Results of this study will be made available on request to participating organizations, and they will also be included in a thesis for use to other serious students and researchers. You are free to withdraw from the study at any time if you feel it is in the best interest of your organization that it not be included. The only cost to you will be your time spent in answering the questionnaire, granting an interview and allowing the researcher to examine, photograph and sketch selected objects.

"I have read the above 'Subject's Consent.' The nature, demands, risks, and benefits of the project have been explained to me. I understand that I may ask questions and that I am free to withdraw from the project at any time without incurring ill will."

Participating Organization:

Organization Representative: Position:

Witness Signature: Date:
(Individual not involved in project)
APPENDIX E

DATA COLLECTION INSTRUMENT
I. Identification
   A. Provenience
   B. Date
   C. Culture
   D. How worn:
      1. points front to back; points at shoulders
      2. costume components

II. Design
   A. Weave
      1. structure
      2. materials and color
   B. Ornamentation
      1. materials and color
   C. Motifs
   D. Construction
      1. Type I
      2. Type II
   E. Finishing
      1. joins
      2. neckline
      3. lower edge
      4. other
   F. Overall Dimensions
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