

Barkcloth Production in Central Sulawesi

A Vanishing Textile Technology in Outer Island Indonesia

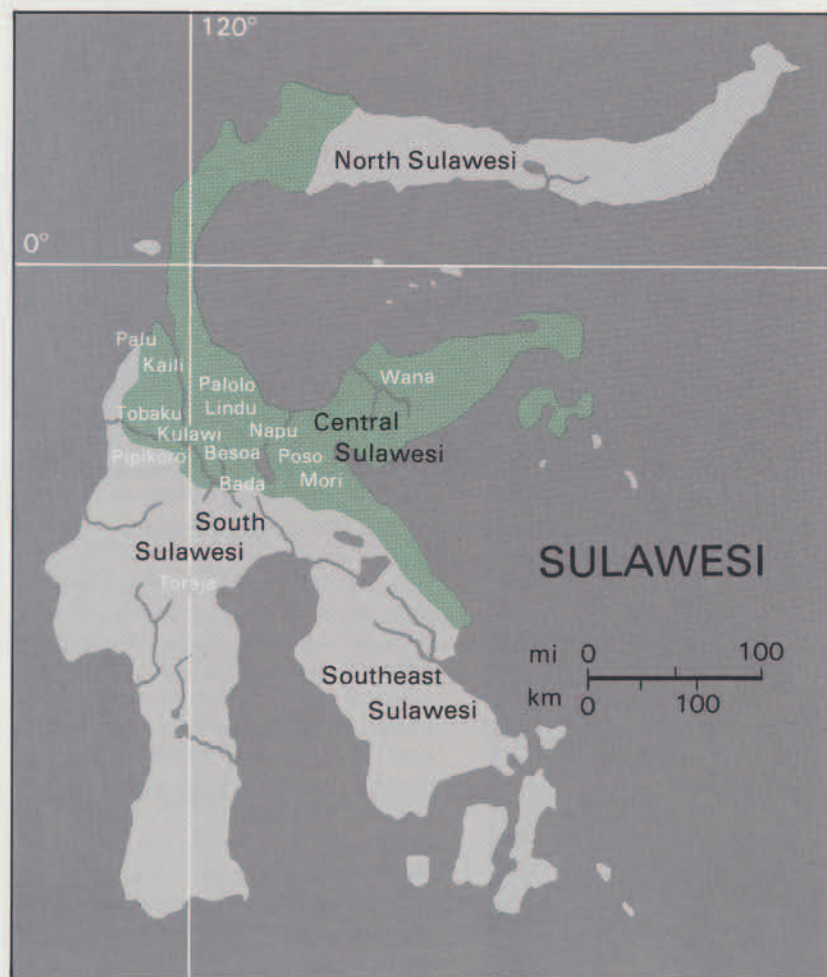
LORRAINE V. ARAGON

Before the invention or adoption of woven textiles, barkcloth was used to clothe the human body in many, if not all, tropical regions of the world. In spite of its replacement by loomed cloth nearly everywhere else, barkcloth is still manufactured today by older women living in some remote highland communities of Central Sulawesi. Although these interior Central Sulawesi groups are no longer renowned for either artistry or technical skills, their 19th century barkcloth manufacture stands out as among the most refined barkcloth production systems ever developed (Fig. 1). The following account of the history and ideas surrounding barkcloth's manufacture and use in Central Sulawesi emphasizes the religious role of this unusual fabric and documents its demise in the face of foreign Islamic and Christian contacts, as well as ongoing processes of modernization.

1
Early 20th century Kulawi woman wearing barkcloth clothes; her blouse is ornamented with shimmering mica flakes.

Courtesy Department of Library Services, American Museum of Natural History, neg. no. 2A 11810; photo by H.C. Raven





2 Formerly, barkcloth was manufactured throughout Central Sulawesi in the homelands of Mori, Poso, Wana, Lore (Napu, Besoa, and Bada'), Kulawi (including Kulawi Valley Lindu, Pipikoro, and Tobaku) and Kaili peoples. Most coastal groups in Indonesia, including those on Sulawesi, acquired weaving technologies between the 4th and 16th centuries from Hindu Indian and Muslim Arab trading populations. Only the most isolated groups on outer islands such as Sulawesi still utilized barkcloth into the 20th century.

Outsiders' Views of Barkcloth

The unfamiliar sight of barkcloth and its production amazed early European explorers to the islands of eastern Indonesia. While unaware of barkcloth's social and religious significance, the first visitors were nevertheless intrigued by its technology and appearance.

It is in this Kingdom [Kaili] where Men and Women are clad in nothing but Paper, and that not being lasting, the Women are always working at it very curiously. It is made of the Rind of a small Tree we saw there, which they beat with a Stone curiously wrought, and make it as they please, either coarse, fine or very fine. They dye it all colours, and twenty paces off it looks like fine Tabby. A great deal of it is carry'd to Manila and Macao, where I have seen excellent bed-hangings made from it; they are the best you could desire in cold Weather. When it rains, Water being the Destruction of Paper those People strip, and carry their Clothes under their Arm. (Navarrete, in Cummins 1962:110)

This comment, written by the Spanish friar Domingo Navarrete after a one-month visit to the Palu Valley in 1657, appears to be the first Western record of barkcloth in Central Sulawesi (the island then known as Celebes; Fig. 2). At the time of this 17th century observation, barkcloth was still manufactured in the coastal regions of Central Sulawesi, and had not yet been replaced by woven trade cloth. By the 20th century, however, Islamicized coastal groups, including Kaili living around the Palu Valley, had adopted woven fabrics sold by Bugis and Arab traders. Yet, when Dutch colonial officials and missionaries left the coast and penetrated the mountainous interior, they saw that the highlanders still wore clothing made from processed tree bark (Fig. 3).



3 Early 20th century Besoa people of Laboea, a migrant village near Cimpu. The appliqué designs seen on their barkcloth blouses and headbands are characteristic of their Lore Valley homeland.

Courtesy Department of Library Services, American Museum of Natural History, neg. no. 2A 11776; photo by H.C. Raven

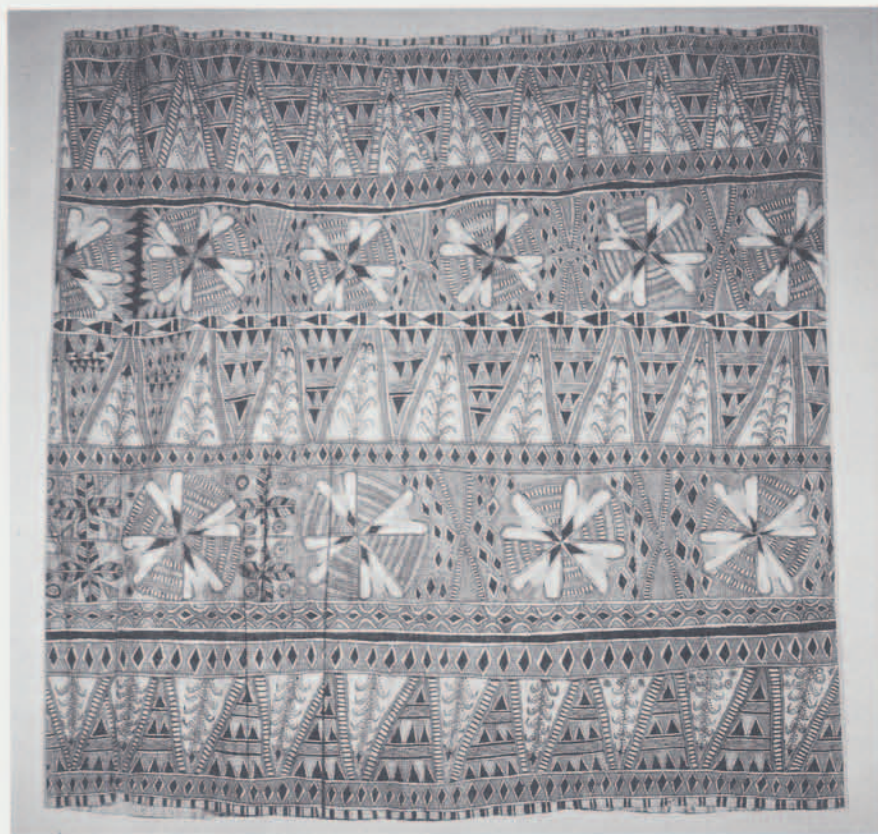
Not familiar with the technology of weaving, and having little contact with outside peoples, these interior migratory farming and hunting groups relied on locally produced barkcloth both for warmth and for decorative apparel. Men's traditional daily garb consisted of simple brown loincloths (*pewo*), while adult women wore full multilayered, finely pleated skirts (*topi*). Women also wore distinctively cut tunic blouses (*halili*, Uma) that, like the skirt styles, varied slightly according to ethnic region. Rough-textured monochromatic brown clothes were replaced with much finer apparel prior to all major rituals, including those held at puberty, marriage, death, and yearly harvests. The thinner and softer white barkcloth was produced from paper mulberry trees specially cultivated for this purpose, and the resulting fine fabric was intricately painted with plant

dyes to create colorful designs for men's headscarfs (*sigu*), tube-shaped body cloths (*abe*), or *sarong* in Indonesian; Fig. 4), and women's blouses. Central Sulawesi groups also manufactured barkcloth for ceremonial ponchos, shoulder bags (Figs. 5,6), burial shrouds, and special bell-shaped cubicles in which female shamans would sit while chanting to the spirits that caused illness. Although some groups did possess small numbers of imported woven cloths (*mbesa* or *mesa*), which were traded from India, Europe, or regions of South Sulawesi (Kruyt 1938, vol.4), these were kept as sacred heirloom items, not worn on a daily basis as were the barkcloth materials.

In 1905 two scholarly Dutch missionaries who had spent almost a decade studying local cultures and languages in Indonesia concluded that barkcloth was undoubtedly the original clothing

material of the entire Indonesian archipelago (Adriani and Kruyt 1905). Moreover, of all the regions where barkcloth was known to be produced and used for either clothing or paper, the interior of Central Sulawesi was described as the source of the most elaborate creations of this unusual fabric technology (Adriani and Kruyt 1905; Raven 1932; Kooijman 1963). Nineteenth century Central Sulawesi barkcloth was exported to other islands for use as clothing material and paper (Adriani and Kruyt 1905), and Covarrubias even describes its use as an imported "canvas" for traditional Balinese painting (1986:192).

Such praise and attention to what is now an almost extinct process of clothing manufacture has rarely been uttered by either foreign scholars of Indonesian material culture, or by 20th century Indonesians themselves. Major



4 A painted paper mulberry tube-shaped garment (sarong) for men or women collected from the Bada Region in 1918 by H.C. Raven. W. 63.5 cm.

Abbott Collection, National Museum of Natural History, Washington, D.C. Photo courtesy of the Smithsonian Institution

books concerning Indonesian textiles (e.g., Langewis and Wagner 1964, Gittinger 1979) usually focus on the splendid *ikat* (tied and dyed) weavings or the more recently invented *batik* (wax-resist dyed) fabrics of the archipelago. They thereby only briefly discuss or overlook entirely the more humble existence of barkcloth (also called *tapa*), which is indeed a felted material rather than a woven textile.

The following description of barkcloth manufacture is based largely on ethnographic field work undertaken by the author between 1986 and 1989 in the Uma-speaking Tobaku region of Central Sulawesi. Although interior Central Sulawesi groups such as the Tobaku are often referred to as "Toraja" in both historical and recent Western writing, locals themselves see the term as applying instead to the culturally different people (even by present observers' standards) living in the Sa'dan

valley of South Sulawesi. The highland Tobaku practice shifting cultivation of rice, corn, and tubers, raise livestock such as pigs and chickens, and hunt with traps and spears. They now usually supplement their subsistence economy with cash crops such as coffee or cloves.

Barkcloth Manufacture: The Process

Barkcloth manufacture begins with the identification of suitable trees in the forest. Women who cultivate certain plots of land will notice trees of suitable types and ages growing within reach of the forest paths. Some species, such as *Antiaris toxicaria* (see box with botanical information), can only be cut when young because toxic resins make bark from older trees too poisonous to handle (Adriani



5 A traditional-style shoulder bag with white and yellow-dyed paper mulberry barkcloth appliquéd onto brown Ficus barkcloth; made by Tina Idjo of Gimpu Village, Pipikoro Region. W. 27.5 cm.

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6 A painted paper mulberry bag used for carrying the ingredients for betelnut chewing. Collected from the Bada Region in 1918 by H.C. Raven. W. ca. 19.8 cm.

Abbott Collection, National Museum of Natural History, Washington, D.C. Photo courtesy of the Smithsonian Institution



7 Tina Due' lifts strips of Ficus bark (nunuwue) from a cooking pot after boiling. The cooled strips will be washed and wrapped in leaves for several days to ferment. Doda village, Tobaku region.

and Kruyt 1905:3). In the Tobaku region, *Ficus* trees, which are most preferred for current barkcloth manufacture, are considered to be owned corporately by the descendants of the first ancestor to clear the land. Thus, women who wish to make barkcloth from a tree growing on land owned by others will request permission to cut the tree. Permission generally will be granted if the owning family has no plans of its own to use the tree.

To harvest the bark of a *Ficus* tree in the Tobaku region, either the entire trunk is felled, or else the work party simply climbs the tree and cuts off as many branches as are needed, using machetes. Straight branches that are four to six inches in diameter are cut into uniform lengths of about six feet each. The outer bark of these selected limbs is then scored lengthwise with a knife point in evenly spaced parallel incisions about three inches apart. This facilitates the subsequent bark stripping to produce pieces of uniform width and length.

For some species such as *Ficus annulata*, *Artocarpus*, and *Antiaris*, the intact branches are vigorously beaten for several minutes before



8 Tina Meida and Tina Nori carrying cooked Ficus bark to the river for washing. Afterwards the strips will be wrapped in leaves to ferment and later beaten to produce a reddish-brown tube-shaped blanket. Towulu Village, Tobaku Region.

stripping in order to loosen the outer bark from the inner wood. The inner layer is separated from the stripped bark pieces with the aid of a knife. Strips of this inner layer are then carried back to the village to make the barkcloth. The tougher exterior bark is discarded, as is the heartwood. The amount of barkcloth strips that one woman can carry on her back to the village is sufficient for one or two blankets.

Ficus bark strips are cooked with water in a large pot, traditionally a locally produced clay pot, either in

the house kitchen or on an outdoor fire if large amounts of barkcloth are being made. The raw bark strips are always dusted with fire-place ashes before they are mixed in the pot, perhaps neutralizing the acidity of the bark juices. Local women say that barkcloth cannot be produced successfully without the ash application. The ash-covered bark strips are boiled from fifteen minutes to one hour depending on the species/type of bark utilized (Fig. 7). The cooked strips are removed from the water, uncoiled so that they do not stick

Botanical Identifications of Some Trees Used for Barkcloth in Central Sulawesi

LATIN	ENGLISH	PAMONA	UMA
<i>Broussonetia papyrifera</i>	paper mulberry	ambo	omu
<i>Ficus infectoria</i>	figus	nunu	nunu' lero
<i>Ficus annulata</i>	figus	nunu	nunu' lewue
<i>Ficus variegata</i>	figus	wanca	anca/asa
<i>Artocarpus blumei</i>	wild breadfruit	tea	tea'
<i>Antiaris toxicaria</i>	?	impo	ipo'

together, and left out to cool, usually overnight.

After the pulp is cooled, it is rinsed in river water (Fig. 8) and then wrapped in leaves to keep it moist while fermenting. The bark strips used for brown barkcloth in Tobaku and Pipikoro are allowed to ferment either three, five, or seven days depending on the species, while the paper mulberry for white barkcloth requires only three days of fermentation. Informants insist that timing is crucial to obtain a satisfactory product. How-



9 (above)
A Besoa elder sorts her set of ike' mallets; a complete set includes two carved wood beaters and three or more carved stone beaters in graded sizes (see Fig. 10). Only a few families still possess these sets.



the veranda or inside the house.

By the end of the fermentation period, all tools are readied, including a six-foot-long beating board (*ha'a*) that has been carved out of a resonant hardwood (*Lagerstroemia ovalifolia* or *wolasi* in the Lake Poso area, *pawaa* in Uma). This polished board rests atop two segments of resilient banana trunks or trapezoidal wood blocks that increase the vibration of the board when beaten. Formerly every household possessed at least one full set of barkcloth beaters (called *ike* in all Central Sulawesi dialects, as well as many Polynesian languages; Fig. 9). However, now tools often must be borrowed from the few families who still possess an inherited set, or who have the skill and enthusiasm to carve new ones. A complete set of beaters consists of two different carved wood beaters and a graded-size set of three or more carved stone beaters hafted to bent rattan, or rattan and wood, handles (Fig. 10).

When the *Ficus* pulp is judged to be sufficiently fermented and sticky, one half of the strips are arranged in layers and laid out lengthwise along the board. The barkcloth maker sits on the floor, or stands facing the beating board, and holds the beater with both hands. With the first large grooved beater (*polowo'*, Tobaku; *pombyowo*, Pamona), carved from wood of the palm wine tree (*Arenga saccharifera*), the strips are beaten together to fuse the sticky layers. When the mash is sufficiently cohesive, the product is turned at a right angle and beaten so that the length runs across the board. After the piece is beaten along its entire top surface, the fused layer is flipped over and beaten again. The above process is repeated with the other half of the strips while the first batch is stored back in the leaf

10
A full set of stone and wood barkcloth beaters from the Besoa Region of the Lore Valley. The beaters are employed in sequence from left to right, using mallets with progressively smaller grooves. L. of beater on far left 46 cm.

UM nos. 1 to 7: 87-8-39, 87-8-14 to 18



11
Tina Meida (with a grandchild on her back) tears the edge of beaten barkcloth in preparation for seaming the tube, which can become a blanket or a skirt. Towulu Village, Tobaku Region.



12
Tina Meida doing the final beating of a *Ficus* barkcloth (*nunu lero*) before dyeing it with preservative fluid. The sections of cloth not being beaten at the moment are gently crumpled at the sides of the anvil board. A neighbor and her son stop by to watch. Towulu Village, Tobaku Region.

wrapping temporarily. The large grooves of the first mallet pound ridges in the woody fibers that help to keep the soft moist fabric from falling apart. Water is sprinkled on the cloth when necessary to prevent premature drying.

The maker beats very precisely back and forth, left to right, and back again towards her body in careful rows. When the cloth becomes larger than the beating board, it must be rotated frequently along the board's surface. With the aid of a bamboo pole lifter, the pulp is shifted gently over the board away from the worker's body into a new position. Edges are frequently straightened with the fingertips. After every complete round of beating, the cloth is folded along its length, the two outside edges being folded in to meet at the middle. Then the two layers are felted together by further beating. The cloth gradually expands in size as it is beaten progressively thinner. Small holes that are accidentally punctured during the beating process are removed by the folding process where thin layers are beaten together, thus strengthening the over-

all ridged texture.

On the second and successive days, carved stone beaters (*watu ike*) are employed, progressing from those with coarse grooves to those with increasingly fine surfaces. The stone beaters are named according to the size of the grooves on the face of the mallet. Some mallets have two faces, and thus two names, while other mallets are carved only on one side. The special whitish stone used by all Kulawi peoples for the mallet heads is obtained in mountain tributaries of the Lariang River, located at the west border of the Tobaku region. Outside of Central Sulawesi, almost all known barkcloth beaters are made of wood. The only exceptions to this rule are some prehistoric finds of stone beaters located in Malaysia, the Philippines (Kooijman 1972), and South and Central America (Tolstoy 1963; see box on Prehistory of Barkcloth).

With the first stone mallet (*pon-tina*, Tobaku) the cloth is beaten very carefully in small sections for many hours. As the cloth gradually becomes wider than the length of the board, the right or left side is crumpled to the side of the board

while the remainder is being beaten. When the cloth must be packed away for the night after a day's work, it is first beaten with the grooves on a twenty-five degree angle, or else with a specially made beater with grooves carved at such an angle. This process helps prevent the cloth from sticking to itself when it is folded up for overnight storage.

On the second or third day of beating, the two batches of pulp are fused and the long ends of the cloth are connected to form the tube-shaped sarong that is the basis for all blankets and skirts. In one method, the two half batches of cloth that until now have been separately beaten are overlapped around the board. The two pieces are then fused into one tube-shaped sarong, the four end edges being beaten together to make one strong seam (Fig. 11). Alternatively, the two separate pieces are fused end to end first, and the sarong tube made later by wrapping the long cloth in a spiral around the board, thus creating a double-layered tube. In either case, the barkcloth becomes a double thickness tube around the board

that is fused into one by subsequent beating. It continues to be beaten carefully both right-side and inside out with successively finer stone beaters (*hare* and *pom-botu*, Tobaku). The tube-shaped cloth can be carefully turned inside out, when necessary, while it is still loosely encircling the anvil board.

As a final step, the cloth is removed from around the board and placed at a right angle on the top surface so that the nap is beaten in the perpendicular direc-

tion (Fig. 12). For this the smallest stone beater (*pombo'ome*, Uma) is used. During this process the cloth is continually rotated and, if necessary, dampened, so that the thin layer does not stick to the beating board.

Each kind of beater makes a distinctive resonating sound as it strikes the bark-covered board. From a far distance residents can easily identify the stage of production in which a barkcloth maker is engaged, since the later mallets are

beaten with increasingly faster rhythms. When more than one woman beat together, they will always hit at alternating beats, never disturbing each other's rhythmic pattern. This fluid rhythmic alternation is the same as that of two women pounding rice. With the final wooden mallets, a faster double rhythm is beaten, one that Tobaku women say matches the drum beat formerly played by hereditary drumming specialists for the traditional shamans' ceremonies (*motaro*).

After two to four days of energetic beating with the stone mallets, the finished *Ficus* barkcloth tube is hung on a pole to dry in the wind.

Each kind of beater makes a distinctive resonating sound as it strikes the bark-covered board.

Then it is beaten again with a smooth wooden beater (*pompao'*, Tobaku) to flatten the nap before a preservative fluid is applied. Adriani and Krut describe how the Poso region groups applied the sap of a bitter fruit called *ula'* (*Diospyros javinica* or *peregrina*) with a brush to strengthen the outer surface of a garment (1905). Besides knowing the use of the same fruit, Pipikoro and Tobaku peoples make *ula'* infusions from the bark of different trees as well. Pipikoro people use the finely chopped and soaked bark of a tree called *wilintunga* (probably *Weinmannia descombesiana*) to make a preservative

14 The designs and motifs for present-day Central Sulawesi "traditional clothing" are derivative of the old barkcloth styles, with the fabrics and cut changed to suit modern Indonesian taste and mores. Some highland women, such as Tina Idjo of Gimpu Village who made this piece and those on the cover, sew layered skirts and blouses of woven cloth with applique designs that stylistically model the barkcloth originals. L. 60 cm.

UM 87-8-3



13

A blouse of painted paper mulberry barkcloth. The symbolic motifs may represent the sun, growing plants, and configurations of buffalo horns. Collected from the Bada Region in 1918 by H.C. Raven.

Abbott Collection, National Museum of Natural History, Washington, D.C. Photo courtesy of the Smithsonian Institution

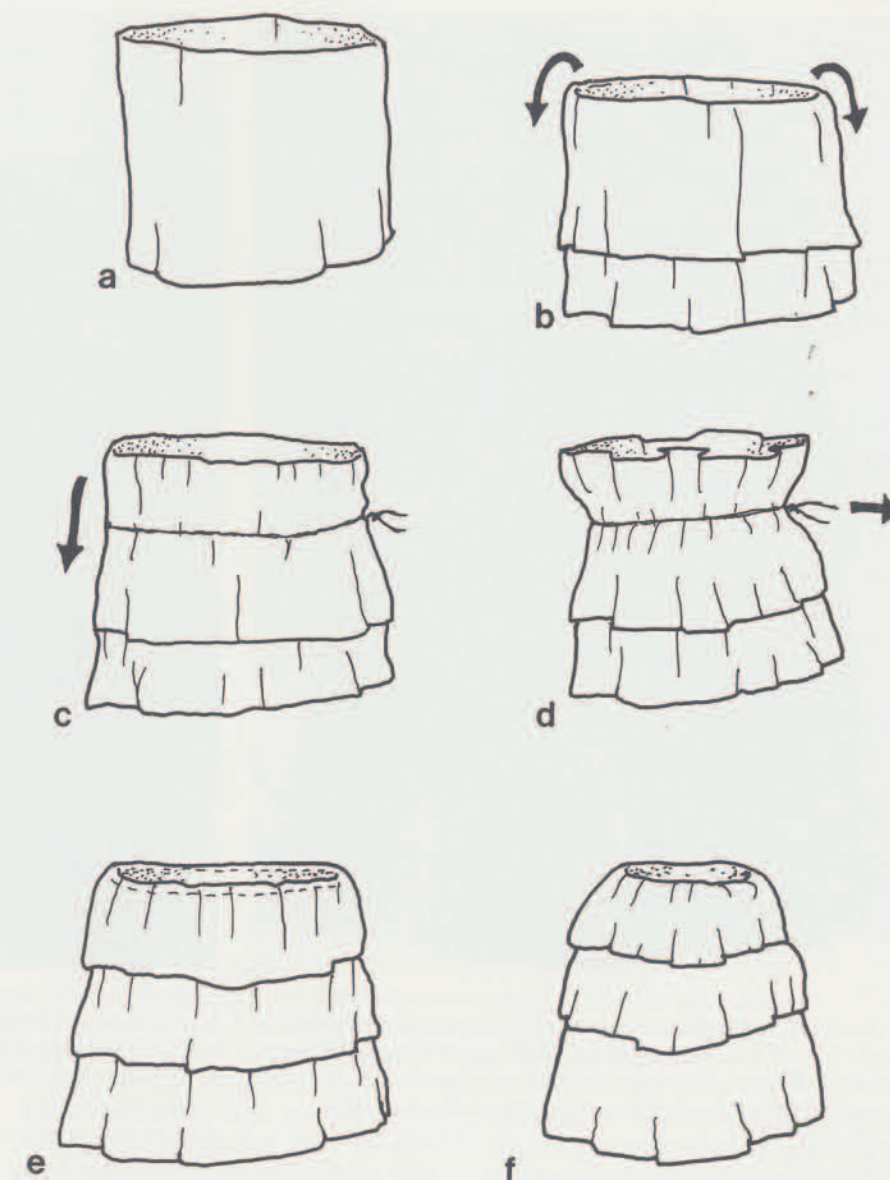


fluid. Tobaku people generally use the bark of a tree called *mompo'* (possibly *Shorea* species) to make a preservative bath in which the garment is soaked thoroughly before drying in the sun. The *mompo'* bark is chopped fine, covered with fireplace ashes, and boiled to release a deep red dye. The dyeing and drying process may be repeated up to four times to insure that the clothes can withstand rainstorms without tearing easily. Worn clothes and blankets made from *Ficus* species may be renovated by additional *ula'* treatments. This preserving and dyeing process is never used for the finer white barkcloth that traditionally was painted for ceremonial purposes.

A final treatment process is used to make black clothing, often favored by local women. The otherwise completed garment is carried to a muddy river bank or wet-rice field and soaked or painted for five to six hours with the blackest mud, before being rinsed in the river. This process is sufficient to produce a permanent rich dark color. After all resin or mud treatments are concluded, the dried finished product is beaten one more time with the flat hardwood beater (*pompao'*) to make the cloth as soft and supple as possible.

A finished barkcloth tube of *Ficus* or *Artocarpus* species can be made into a layered skirt by tying it and folding it at the waist one or more times (Fig. 15). The skirt is then pleated, one fold at a time being hammered in by the flat hardwood beater (Fig. 16). Afterwards, the skirt is inserted into a large bamboo tube that serves both as a storage and "ironing" container.

The bark of the *Antiaris toxicaria* (which is used also by certain Dayak groups of Borneo who call it *ipoh*) is distinctive in that it is not gummy enough to stick to itself when beaten. Thus, an entire cylinder of bark is cut off a tree trunk (Fig. 18) to produce a single sheet of fabric that then must be sewn to produce most clothing items, except for head- or loin-cloths. The production of cloth from the *A. toxicaria* tree (*ipo'*) is done much more quickly than the other types since no cooking or fermenting takes place. The



15

A layered skirt such as that shown in Figure 16 is made by tying and folding a barkcloth tube at the waist one or more times.

Drawing by Jon Snyder after Soelarto and Albiladiyali 1976: Fig. 46

entire bark covering of a log is incised lengthwise, removed, and beaten in one sheet. The process can be finished in one day or it can be continued for a second day, if the bark sheet is kept soaking in water overnight. As with the *Ficus* species, the outer rough bark is cut off (Fig. 19) and only the fine inner bark is beaten. With *Antiaris*, the inner bark sheet is beaten first with the flat wooden beater (*pompao'*), then the other beaters are introduced in the usual order.

Before the introduction of im-

ported aniline dyes (known commonly in Sulawesi as *cet kasumba*), Poso peoples knew how to make natural dyes of at least four colors. Red was made from *Morinda bracteata* or *Piper betle*, yellow from *Morinda citrifolia* or *Curcuma longa*, blue-purple from a species of *Papilionaceae*, and green from a plant thought to be *Homalonema alba* (Adriani and Krut 1905). Colored designs were applied to white barkcloth with bamboo sticks, leaf brushes, or carved stone stamps to create colorful feast



16
A three-layered, pleated brown and black ceremonial skirt made from *Ficus* barkcloth by Tina Idjo of Gimpu Village, Pipikoro Region. The layers are adorned with rows of small triangular black barkcloth ornaments and tan seeds.
L. 84 cm.

UM 87-8-9



17
Unmarried girl from Besoa wearing ceremonial attire, including a double-folded barkcloth skirt. The design of appliquéd triangles on her blouse is characteristic of Lore Valley styles.

Photo by Wolanda Hindia. From the photo archives at Hendrik Kraemer Instituut, Oegstgeest, Netherlands.

clothes that were boldly patterned. In some areas, flakes of mica were added as sequins (see Fig. 1), or appliqués of differently colored barkcloth were sewn on with hemp fibers to create the stylistically characteristic designs (see Fig. 3).

Painted or appliquéd motifs are primarily geometric, with a standard repertoire of parallelograms, triangles, circles, radiating stars, and four-petal flowers arranged in concentric or mirror-image patterns often divided by diagonals. One prominent motif is said by scholars and local villagers to resemble a constellation of flying birds or buffalo horns (Kaudern 1963; see Fig. 13). Figurative images of humans, roosters, snakes, insects, and plants are more rarely included.

Social and Religious Aspects of Production

In Central Sulawesi the production of barkcloth was and is principally women's work, although male relatives may be enlisted to cut down large trees, strip bark, or make the tools that are used for beating the fermented bark (see Figs. 18, 19). Formerly, all young girls were taught to beat and decorate barkcloth by their mothers, and girls were expected to produce a full set of feast clothes before their marriage day. In a few areas (Napu, Besoa, and Bada') certain men, specifically transvestite priests (*bayasa*), were allowed to practice the art of barkcloth painting for

ritual clothing to be used in major ceremonies (see Fig. 21). Through their symbolic transformation, these cross-dressing priests were able to enter a domain of activity normally reserved for women.

Barkcloth production also was guided by many spatial and temporal taboos connected with indigenous traditions and cosmology. Women were forbidden to make barkcloth in the agricultural field and settlement areas (*bonea*, Uma; *kebun*, Indonesian), inside the village house rooms, after sunset, during the harvest season, soon after epidemic illnesses, or during mourning periods following a close relative's or a noble's death. These and other local guidelines still usually are followed today even



18
The entire bark casing from the felled trunk of an *Antiaris toxicaria* tree is cut and peeled off the inner wood by Tama Laura of Wuruwi Village, Tobaku Region.



19
Tama Laura uses a machete to trim the inner bark of *Antiaris toxicaria* that will be beaten by his wife, Tina Laura, Wuruwi Village, Tobaku Region.

though the remaining barkcloth-producing areas are primarily Christian. Out of respect for their present religious affiliation, Tobaku women now also refrain from beating barkcloth on Sundays.

Formerly, in areas such as Tobaku, special barkcloth production sheds (*hou poronua*) were erected to accommodate the beating activities of up to fourteen women at a time (Kaudern 1925). However, beating also could be done individually on a platform beneath the traditional rice granary, another domain regulated by women. This practice is still followed in areas like Bada' where separate rice granaries remain standing. In other regions that no longer maintain traditional style granaries, a temporary shed to provide shade is constructed off the side of the house, or an existing house veranda is used.

According to Adriani and Kruyt

(1905), beating was not allowed inside the house for fear of disturbing house spirits with the pounding noises, or even worse, accidentally hitting a revengeful spirit with one's hammer. Throughout production, offerings of betelnut were set out for the spirits, and in the Poso region elder women would formally beseech the souls of the ancestral residents of the land (*tumpu ntana*, Pamona) not to be angry about the pounding noise, but to wait patiently for the precious barkcloth that eventually would be shared with them (Adriani and Kruyt 1905).

Prior to Christian missionization, many more aspects of barkcloth production were regulated according to traditional religious ideas. In the Pipikoro and Tobaku areas, before a tree was cut, the eldest woman present would ask forgiveness from the spirit of the tree,

offering it betelnut (a stimulant chewing mixture) and requesting it to find residence in a new tree. In Poso, freshly carved mallet heads were boiled with leaves thought to contain much *tanoana* (Pamona), a vital element that Adriani and Kruyt first termed *levens-aether* or "life force" (Adriani and Kruyt 1905:15), and later *zielestof* or "soulstuff" (Adriani and Kruyt 1906:2). The traditional ritual requirements surrounding barkcloth's production are indicative of the fabric's former role as a religious medium.

Symbolic Uses of Barkcloth

Barkcloth-making always has been an activity symbolically associated with fertility and womanhood in Central Sulawesi. When a Kulawi bride was six months preg-

nant, she traditionally was presented with a white barkcloth blouse (*halili bura*) during a special ceremony. This blouse was worn in another ceremony at the seventh month, and not removed until after the baby was born (Soelarto and Albiladiyah 1976). The identification of women with barkcloth also is illustrated by another traditional Kulawi ceremony (*mampopanau*) formerly carried out after every new baby's birth. At that time a set of symbolic objects were placed in front of the house to announce the baby's gender to the villagers (Soelarto and Albiladiyah 1976). For boys a sword, a shield, and a bronze bell were displayed, emphasizing men's roles as warriors, religious leaders, and traders. For girls a basket of agricultural tools and a set of barkcloth beaters were displayed, emphasizing women's roles as horticulturalists and producers of clothing.

Parallel to the many ceremonial uses of woven textiles documented for weaving regions of Indonesia (Gittinger 1979), barkcloth was employed as a symbolic vehicle in ritual circumstances as well as being the daily all-purpose fabric and wrapping material. In regions of Central Sulawesi such as Bada' and Kulawi, widowed spouses were required to wear white barkcloth outfits until the end of mourning ceremonies. Scharer (1963) writes of the special uses of barkcloth garments among the Ngaju Dayak people of Borneo both by widowed women and by persons undergoing

tattoo operations, examples also showing the importance of barkcloth in marking life cycle transitions.

According to Adriani and Kruyt (1905), the designs on barkcloth headscarfs worn by men of the Poso area were carefully regulated to represent the total number of heads the owner had captured on head-hunting raids. Only men who had taken more than six heads could wear a headscarf of many colors, and seven to ten heads were required to wear scarfs depicting

Barkcloth-making has always been an activity symbolically associated with fertility and womanhood in Central Sulawesi.

humans or ceremonial weapons. Headhunting raids traditionally terminated mourning periods following a noble's death; the capture of enemy heads cancelled food and behavioral taboos brought into effect by the grievous event. The use of painted barkcloth head-dresses to mark men's increasingly elevated warrior rank again illustrates the cloth's role in status transitions.

Prior to Christian missionization, barkcloth had many uses as a

medium capable of containing and transmitting spiritual power. In some regions the noble descendants of community founders (*maradika*), who had a semi-sacred status, would bless their community's agricultural fields by giving each household a strip of barkcloth. This barkcloth was to be hung on poles in the fields as a protective flag warding off evil spirits and pests. As a counter obligation, every villager was responsible for working at least one day in the rice fields of the noble (Kruyt 1938).

When a group of travelers set out on a long journey through the forest to seek good fortune, they would carry with them a piece of white barkcloth blessed by the leading noble of their village. At each stopping point on the journey a small piece of the cloth was cut off and offered to the local spirits of the place. Upon their successful return, the group would make a feast of thanks to their ancestral spirits. A portion of any booty acquired on the journey would be given to the noble who had blessed the barkcloth talisman, ensuring safe and profitable travel through his empowerment of the sacred fabric (Kruyt 1938).

In many ritual contexts the coloring of barkcloth expressed a symbolic code for Uma-speaking peoples. White barkcloth (*tobula*) would be presented with weapons to request aid from allies and deities in war, red barkcloth (*dinolo*) would be used in spirit offerings before hunting, reddish-white bark-

Philippines draw dates as early as the 2nd millennium B.C. (Tolstoy 1963). The overlap of production terminology and techniques between Central Sulawesi and eastern Polynesia suggests that the technology dates to a time of close contact or common origin (cf. Kennedy 1934). Designs on Polynesian barkcloth, which resemble those found in Sulawesi, also have been matched with designs on Lapita pottery dated from 3,200 to 2,400 B.C. (Green 1979).

According to Ling and Ling (1963), documents dating as early as the 6th century B.C. refer to the use

of barkcloth in China. Chinese endeavors to produce cloth by beating the bark of the paper mulberry tree are recorded in the 3rd century A.D. Evidence suggests that the paper mulberry tree, which makes the finest white barkcloth, was introduced to Indonesia and Oceania by migrants from Indochina, Thailand, or Burma (Kooijman 1972). Whether the technology of barkcloth manufacture was introduced at the same time is not indicated by the available evidence, but Burkhill (1966) suggests that the industry was introduced to Java from China.

Prehistory of Barkcloth

At the time of the first European world explorations in the 15th and 16th centuries, barkcloth was in widespread use globally, still manufactured in Subsaharan Africa, Southeast Asia, Indonesia, Melanesia, Polynesia, Mesoamerica, and South America (Tolstoy 1963). Archaeological reports date Mesoamerican stone beaters to as early as the 1st millennium B.C., while reports from Formosa and the

cloth (*ninia*) would be used in offerings to clear new land for crops, and yellow barkcloth painted with tumeric (*kunyi*) would be worn in ceremonies petitioning for the successful ripening of corn and rice. Frequently small bits of the household's barkcloth were presented as sacrificial offerings to the spirits, or even occasionally as a substitute for the body of the person making the offering.

The ritual significance of barkcloth in Central Sulawesi extended also into the domain of traditional medicine. In Tobaku curing practices, the lost soul element (*kao*) of a sick person would be called and captured inside a white barkcloth bag by the village shaman, who petitioned powerful ancestral spirits for assistance. The lost soul element then would be returned to the patient's body by the shaman, and afterwards the ill person was expected to recover quickly.

This perceived ability of barkcloth to serve as an intermediary in contacting ancestors and deities was a significant aspect of traditional belief in Central Sulawesi, which also has been documented in Polynesia (Kooijman 1972). Clearly, the pan-Indonesian fascination with, and ritual reverence toward, ceremonial textiles did not begin with the introduction of weaving or the importation of foreign fabrics, but rather has a strong basis within the earlier barkcloth tradition.

An Uncertain Future

From 1908 to 1940, the Dutch government in conjunction with Protestant missions began to assume a more active presence in the highland Central Sulawesi region. Contact with outsiders increased, especially with Indonesian ethnic groups that know how to weave. The introduction of woven cotton cloth to the interior quickly led to a marked preference for clothing of the new fabric. In the past seventy years, barkcloth clothing has become increasingly associated in local eyes with poverty, pagan traditions, and general backwardness.

Much historical knowledge and many samples of Central Sulawesi



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Wedding apparel of Nona and Yos Kabo in the Napu Region, 1987. The bride's tunic blouse, headband, and layered skirt are cut in traditional style, but sewn from imported materials. The groom's shorts and velvet jacket retain a colonial period style and indicate his aristocratic heritage.

barkcloth derive from Adriani and Kruyt's early 20th century missionary work in the Lake Poso area. Extensive collections of intricately painted men's headscarves, sarongs, women's blouses and layered skirts were acquired by Westerners for museums, and classified with regard to prominent design motifs (Adriani and Kruyt 1912; Kaudern 1944; Kooijman 1963). Unfortunately, however, little early field

research was done on the local meanings of the designs employed, and the first missionized regions were also the first interior areas to abandon the barkcloth-making and ritual painting process.

Only during two periods of textile scarcity was indigenous barkcloth production vigorously revived through necessity. During both the Kahar Muzakkar Islamic rebellion (disturbing various regions of Sula-

wesi between 1950 and 1965) and World War II, Central Sulawesi women returned to their ancestral technology in order to clothe their families. From 1941 to 1945 almost no woven cloth could be obtained due to the Japanese occupation. Many people were reduced to wearing meager loincloths of barkcloth or coconut fiber sacking, a situation that elders still recall vividly.

By my first visit to Central Sulawesi in 1984, Western-style cotton/polyester clothing was in general use even in the interior, and only a few elders in isolated areas still knew the techniques of barkcloth preparation. The beautifully painted white barkcloth of the Poso

region was virtually unknown to the grandchildren of its makers. Even the isolated Wana group, who call barkcloth *ronto kojo*, meaning "real or true cloth," readily abandoned it by the 1970s in favor of cotton/synthetic materials traded in from the coast (Jane Atkinson, pers. com., 1988). In 1988 when I traveled to the Wana area, many adults who still knew how to make barkcloth no longer bothered to do so. No one was painting barkcloth any longer, or could elaborate on the meanings of ancestral designs. Western-style clothes, readily available through missionaries and coastal markets, were considered more beautiful, practical, and less "embarrassing" than traditional barkcloth garments.

Most Central Sulawesi people today readily mention the heavy

once substitute fabrics were available, the production of barkcloth throughout Central Sulawesi was increasingly neglected in part for practical reasons.

Today, barkcloth is regularly manufactured and used for practical reasons only in remote interior regions of the Lore highlands, such as Bada' and Besoa, and in the areas south of Kulawi Valley such as Pipikoro and Tobaku. In these places, the manufacture of tube-shaped barkcloth blankets still has some currency. They are warmer than store-bought blankets and their production involves no expenditure of money, still a precious commodity in such communities. Barkcloth blankets also double as mosquito nets, room dividers, and insulating walls in tiny mountain field houses that may hold up to fifteen or twenty extended family members a night during the rice harvest season.

The fact that barkcloth has survived in these Christian regions only in non-ceremonial contexts points to another major force contributing to barkcloth's decline. In assessing reasons for the demise of barkcloth manufacture in Polynesia, Kooijman (1972) mentions that not only the introduction of woven textiles, but also the introduction of foreign religion propelled the collapse in production. Similarly, in Central Sulawesi not only are imported textiles more practical, but most ritual occasions associated with specific painted barkcloth apparel and sacred objects have been eliminated with the increasingly strict Islamization of the coasts and Christianization of the interior.

In the 1970s, the only barkcloth observed by Atkinson (1979), an anthropologist working in the isolated Wana area, were ceremonial items: shamans' cloths (*papolonsu*) used to extract aggravating agents from sick persons' bodies. However, the Wana area too has since been actively missionized, and traditional curing ceremonies are strongly discouraged by church and government authorities. The demise of barkcloth, then, has been propelled primarily by these two forces: the introduction and marketing of more practical fabrics for

not only the
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work involved in barkcloth production, and other practical limitations of the fabric given the considerations of the modern world. For instance, barkcloth cannot be washed, only aired in the sun, so presumably traditional clothing became increasingly soiled and malodorous. There was also the problem of durability. Coarse brown clothes were said to have lasted only seven to eight months before tearing or disintegrating in a heavy rainstorm. The fine white ceremonial clothes were even more fragile, and were expected to last for just a single feast period. Reportedly, they received only about a week's use before their untimely disposal (Adriani and Kruij 1905). In point of fact, used barkcloth of the coarse red varieties can be renewed with an additional soaking in preservative fluid (*ula'*), but this requires considerably more effort than the washing of modern fabrics. Thus,

Origin Myths

Adriani and Kruij (1912) recount a myth of the Pamona (Poso) people that says when the original peoples of Sulawesi became separated one from another, each group received a tool to aid their subsistence. The Pamona people received a barkcloth beater that they were taught to use by one of their female ancestor heroines. In Pipikoro some people say that the first barkcloth, like the first machete, was a gift from the deities to humans. The first mallet stone for a barkcloth beater was carved supernaturally by a spirit in the local stream, where it was discovered by a Pipikoro ancestor. Since that time, humans have known how to carve the beater grooves themselves with small knives.

In Tobaku, an even more comprehensive origin story explains the knowledge of barkcloth making. There it is said that the names and uses of all objects, plants, and creatures in the world were told to one of their ancestors by a spirit encountered near their mother village in the form of a wild boar. Since that time, all subsistence technologies such as barkcloth production have been fully known.

secular purposes, and the progressive elimination of traditional ceremonial contexts in which painted barkcloth holds a sacred meaning.

In addition, the historical processes of Dutch colonialism and Indonesian modernization have cast barkcloth clothing in a "backward" light. When inquiring about barkcloth, I sometimes was called to the urban homes of descendants of the aristocracy to view their *pakaian adat* or "traditional dress." Almost invariably I was shown a puzzling concoction of imported sateen, sequins, velvet, and Buginese woven cloth that was heralded as the ancestral costume. Some of these clothes were produced in the pre-Independence era and were designed to incorporate elements of colonial Dutch or Javanese uniforms (Fig. 20). The aim was to dress Central Sulawesi nobility in attire that would be more similar to the clothes of their foreign counterparts. Such costumes are now regarded as authentic examples of indigenous clothing, testifying to the past glory of local kingdoms.

Most unusual or ornamented barkcloth items have vanished from present-day manufacture, although there is occasionally some attempt to revive production efforts for government-sponsored dance competitions or other local festivals in urban regions. In January 1989, for example, elders of Bora village in the Sigi-Birumaru area wore shamans' dancing costumes, including barkcloth tunics, for a public performance of traditional adat rites (Fig. 21). While the government-sponsored event catered to modern political aspirations of the regional nobility's descendants, barkcloth still had a role to play in authenticating the historical authority of the region's ritual leaders. Only in a few Islamic villages of the same region are unpainted white barkcloths sometimes produced and used for traditional ritual purposes such as burial shrouds and garments for traditional curing ceremonies called *mobalia*.

The complex situation of barkcloth's decline and occasional revival should be understood with respect to recent Indonesian government efforts to conserve, and if



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Kaili shamans at a government-supervised traditional ceremony held at Bora village, Sigi Region, 1989. They are wearing ceremonial barkcloth tunics over Donggala silk sarongs. These shamans are all women except for the man on the right who is a transvestite priest.

Photo by Pak Jumran, Central Sulawesi Museum

necessary create, exemplary local art, history, and traditional culture (Fig. 14). Since the mid-1970s, the government has established regional offices of the Department of Education and Culture that are requested to cultivate examples of local art, song, dance and traditional clothing styles. These cultural activities are to be carried out in a homogeneous fashion in accordance with national development goals, including the promotion of tourism (Acciaioli 1985). In Kulawi, for example, recent attempts have been made to produce barkcloth clothes, some colored hastily with magic markers, to satisfy the occasional Western traveler. The cultural efforts supported by the government are designed not to offend the prevailing images of modernization or the sensibilities of local religious leaders. Thus sometimes authentic elements of traditional arts or dress are given new meanings (or are eliminated al-

together) by the time they reach the urban or national level for public display.

While the majority of urban Indonesians today are more interested in modern fashion trends, world religions, and national economic progress, for the scholar the traditions of barkcloth production include a great deal of historical information concerning the region's traditional cosmology as well as its clothing. Moreover, if government actions to revive local arts and expand tourism continue, Central Sulawesi barkcloth production may evade extinction through regional efforts that will recall, in one form or another, barkcloth's symbolic ties to traditional ritual authority. Barkcloth clothing, or even its designs adapted for woven cloth, easily serve as a distinctive badge of local ethnic identity for all indigenous Central Sulawesi peoples as they face increased integration into the national Indonesian culture.

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Lorraine Aragon received a B.A. in Psychology from Clark University in 1975, and an M.A. in Communications from the University of Pennsylvania in 1978. In 1977 and 1982 she assisted Dr. William H. Davenport in the Oceania Section of The University Museum, Philadelphia. She is currently a doctoral candidate in Anthropology at the University of Illinois. Her dissertation research in Central Sulawesi, Indonesia, was conducted from 1986 to 1989, and her dissertation concerns cosmological traditions and social change in Christian regions of highland Central Sulawesi. She is presently assisting the Smithsonian Museum of Natural History in preparing an exhibit and catalog on the artworks of Indonesia's "outer islands."

