National Meeting Proceedings

1983

Association of College Professors

of

Textiles and Clothing, Inc.
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ASSOCIATION OF COLLEGE PROFESSORS OF TEXTILES AND CLOTHING

8th National Meeting - 1983
Ala Moana Americana Hotel
Honolulu, Hawaii

PROGRAM

Monday, July 4
8:30 am - 3:00 pm National Executive Board Meeting
4:30 pm - 7:30 pm Exhibits and Recreation, Department of Textiles and Clothing, University of Hawaii, Manoa Campus

Tuesday, July 5
8:00 am - 9:30 am General Session 1
Presiding: Orpha Herrick, President, Western Region
Greetings from Phyllis Tortora, National President
Greetings from the Governor of the State of Hawaii
"Hawaii and the Pacific in Perspective" - Dr. Adrienne Kaeppler, Curator of Oceanic Ethnology, Smithsonian Institution
10:00 am - 11:30 am General Session 2
Presiding: Marilyn Horn, National President-Elect
"Dress and Adornment of Pre-European Hawaiians" - Barbara Harger, Associate Professor, University of Hawaii - Manoa
"Designs of Hawaiian Wear: An Evolution in History" - Gloria Furer, Professor, University of Hawaii - Manoa
12:15 pm - 1:45 pm Luncheon and Fashion Show
Presiding: Agatha Huepenbecker, National Secretary
"Hawaii Designs" - A panorama of current fashions presented especially for ACPTC by the Hawaiian Fashion Guild, an association of local garment manufacturers
2:15 pm - 3:30 pm "Textiles Design and Use in Hawaii" - panel discussion
Presiding: Jo Ellen Uptegraft, National Treasurer
Panel members: Dorothy Brockhausen, Stylist, G. Von Hamm Textiles
Joyce Arizumi, Vice President, Sun Fashions of Hawaii
Jeffrey Berman, Designer, Fabrications and Jeffrey Barr
5:30 pm - 7:30 pm  Governor's Reception, Washington Place - tours of the museum rooms

Wednesday, July 6

9:30 am - 5:00 pm  Bishop Museum

9:30 am - 10:30 am  Greetings, Atherton Halau
Janthina Morris, Manager, Education Collection and Hall of Discovery

"Pacific and Hawaiian Tapa Collections: Conservation and Maintenance" - Dora Jacroux, Ethnology Collections Manager, Department of Anthropology, Bishop Museum

10:45 am - 11:30 am  Kahiko Hula - Demonstration of the traditional style of men's hula

11:30 am - 12:15 pm  "Conservation of Pacific Textiles" - Mary Lea, Manager, Pacific Regional Conservation Center

12:15 pm - 1:00 pm  Hawaiian Luau Lunch

1:00 pm - 5:00 pm  Workshops and Museum Tour

Hawaiian Quilting workshop
Featherwork workshop
Lauhala Weaving workshop
Petroglyph Rubbing workshop
Tours of Bishop Museum

7:00 pm - 9:00 pm  Futures Update
Presiding: Marilyn Horn, National President-Elect

Thursday, July 7

8:30 am - 10:30 am  "Textiles and Apparel in the International Marketplace" - panel discussion
Presiding: Mary Littrell, President of Central Region
Panel members:
Stephen Craven, Director, Honolulu District Office, U.S. Department of Commerce - International Trade Administration
William Foster, Sr., President, Malia International
Dave Rocklen, President, Surfline, Inc.

11:00 am - 12:00 pm  General Session 3
Presiding: Judy Flynn, President of Eastern Region

"Costumes of Asia" - Dr. Mary Ellen DesJarlais, Professor, University of Hawaii - Manoa
12:00 pm - 2:30 pm  Luncheon and National Business Meeting

3:00 pm - 4:50 pm  Research Reports

Presiding: Leslie Davis

3:00 pm - 3:20 pm  "Consumers' Perceptions of Quality for Imported Versus U.S.-Made Apparel" - Kitty Dickerson

3:20 pm - 3:40 pm  "United States-China Trade Relations: Implications for American Textiles and Apparel Industries" - June W. Dyson and Charles Riggs

3:45 pm - 4:05 pm  "Utah Consumer Interest in Telecommunication Offering Systems" - Tom C. Peterson

4:10 pm - 4:30 pm  "Development of a Clothing Competency Skill Program Designed for Deinstitutionalized Chronically Mentally Ill Patients" - Colleen S. Frey and Monica S. Brinson

4:30 pm - 4:50 pm  "Fabric and Sewing Knowledge of Fabric Sales Personnel: A Comparison of Measurement Methods" - Margaret Rucker and Eileen Burtis

Presiding: Sharron Jo Lennon

3:00 pm - 3:20 pm  "Cognitive Strategies to Describe Warm and Cool Appearances" - Marilyn Revell DeLong and Catherine Cerny

3:20 pm - 3:40 pm  "Dress as a Predictor of Interpersonal Attraction" - Hilda Mayer Buckley


4:30 pm - 4:50 pm  "A Content Analysis of Magazine Descriptions of Boys' Clothing, 1860-1910" - Jo B. Paoletti

5:30 pm  Regional Board Meetings
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<td>Tours of Iolani Palace and Mission Houses</td>
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<td>&quot;Royal Women of Hawaii&quot; - banquet and show</td>
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<td>8:30 am - 11:50 am</td>
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ACPTC National Officers, Regional Presidents, and National Meeting Chairpersons and Committees

ACPTC National Officers - 1982-83

Phyllis G. Tortora, President
Queens College - New York

Mary Ellen DesJarlais
University of Hawaii - Manoa

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University of Nevada, Reno

Gloria Furer
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Agatha Ahepenbecker, Secretary
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Oma Umbel
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Brigitte Campbell
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Framingham State College, Massachusetts

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University of Hawaii - Manoa

Mary Littrell, Central Region
Iowa State University

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Orpha Herrick, Western Region
University of Hawaii - Manoa

Alice Yoder
University of Hawaii - Manoa

ACPTC Executive Secretary
Loy Walton

Futures Seminar
Marilyn Horn
University of Nevada, Reno

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University of Hawaii - Manoa

Carol Anne Dickson, Chairperson
University of Hawaii - Manoa

Orpha Herrick
University of Hawaii - Manoa

Innovative Teaching Reports

Local Arrangements

Barbara Harger
University of Hawaii - Manoa

Ardis W. Koester, Chairperson
Oregon State University

Hawaiian Fashion Guild Show Coordination

Bette W. McClaskey
Rock Hill, North Carolina

Diane Chung
University of Hawaii - Manoa

Susan Kaiser
University of California, Davis

Exhibitions

Futures Seminar
Marilyn Horn
University of Nevada, Reno

Marcia Morgado, Chairperson
University of Hawaii - Manoa

Conference Materials

University of Hawaii - Manoa

Bette J. Tweten
University of Nebraska, Omaha
Research Reports

Leslie Davis, Chairperson
Utah State University

Judy Forney
San Francisco State University

Karn Kyllo
University of Vermont

Sharron Jo Lennon
Utah State University

Hospitality Committee

Diane Chung
University of Hawaii - Manoa

Registration

Hawaii Conference Planners

Proceedings

Margaret Rucker
University of California, Davis

Audio-visual Equipment

Alice Yoder
University of Hawaii - Manoa

Publicity

Marcia Morgado
University of Hawaii - Manoa

Evaluation

Jerelyn Gooden
University of Houston

Pat Horridge
Texas Tech University
A widespread view of the Pacific is based on romantic notions derived from the writings of Herman Melville and the paintings and sculptures of Paul Gauguin. The Pacific is often thought to be a homogeneous area in which similar cultures are simply separated by stretches of water. But the Pacific is geographically and culturally extremely diverse and my talk today will attempt to give you an introduction to clothing and its social functions in selected Pacific societies. The Pacific Ocean occupies one-third of the earth's surface but the land area within it is extremely small. Nevertheless, environments range from tropical rain forests to mountainous snowfields and from tiny coral atolls to large islands with massive volcanic craters.

Culturally and geographically the Pacific can be divided into three large areas--Polynesia (many islands), Micronesia (small islands), and Melanesia (black islands). The ancestors of the indigenous inhabitants migrated from the south Asian area in boats and canoes of various kinds and moved in many routes step-by-step until all the major islands were inhabited.*

Clothing and bodily adornment are embedded in culture and are visual manifestations of social relationships. Objects--including clothing--are part of socially given categories and objects, and clothing of the past can tell us a great deal, not only about these inanimate things themselves but also about their owners and the societies that produced them. Traditional clothing of the Pacific is seen today primarily in museums, usually presented as works of art, which often does not communicate much understanding about how or by whom this clothing was worn. Clothing can best be understood in terms of the socio-political systems of which it is an important part. In the Pacific, clothing can be related to three socio-political types which I characterize here as Chiefs, "Bigmen," and Mariners.

**Polynesian Chiefdoms**

The Polynesian triangle was (and in many places still is) a traditional home of socially stratified societies of a political type known as chiefdoms. Here power resided in chiefly office, political regimes were long and enduring, and succession to chiefly office was by genealogical rules. Genealogical rank based on descent from the gods was a distinctive feature of Polynesian societies and often resulted in pyramidal social structures with the highest chief at the apex and commoners at the base. Relative rank within the pyramid influenced social relationships, and clothing paid allegiance to the rank-based sociopolitical system and helped to validate the system of social distinctions and interpersonal relationships. Within these

*See Bellwood (1979) for further details on migration.
relatively stable Polynesian hierarchies, specialized artisans called tufunga, tuhunga, or kahuna made specialized objects for the chiefs, whose prerogatives included access to the most beautiful and valued items of clothing and ornament. This clothing imparted important information about the "actors" in any event. Important occasions for understanding the sociological importance of clothing were warfare, weddings, funerals, and dance performances.

Hawai'i

At the time of the European discovery of Hawai'i, clothing and ornaments functioned as visual embodiments of prestige and sanctity, and the social relationships among people and between people and the gods. Featherwork was most important as a visual objectification of social inequality. At the time of European contact feathered cloaks, capes, and helmets functioned as sacred protective coverings for the highest chiefs and were worn primarily for warfare and during other dangerous or sacred situations.

After European contact and the rise of the Chief Kamehameha, feather cloaks became objects of power legitimization. With the attenuation of warfare and spread of Christianity, pieces of featherwork lost their power to influence social action and became status and ceremonial objects and finally works of art (Kaeppler, in press).

As previously noted by Kaeppler (1980, p. 61). Strict kapu (taboos) were associated with clothing and bedcoverings.

(Handy & Pukui, 1958, pp. 181-182). Barkcloth skirts could not be worn over the shoulders. A daughter could not wear the clothes of her mother, but a mother could wear the clothes of a daughter. A man could wear his brother's clothes, but never his sister's clothes. Sleeping mats or barkcloth bed coverings were only for sleeping (not sitting) and were kept separate, depending on whether they were to lie upon or to be used as a cover. Most important, clothing meant to be worn around the waist and hips could not be worn above the waist. Old clothing was not given away, but burned or buried, and even lei were not carelessly discarded. Clothing in the hands of a sorcerer could be dangerous.

All of these kapu were transferred to European clothing and bed coverings, and even today one never sits on a Hawaiian quilt. Even the same towel could not be used above and below the waist. Each item had its own place; clothes were never put on the floor or sat upon, and it was forbidden to sit on a trunk that held these things. Specific clothes were worn at home, others worn elsewhere, and when outgrown, they were not given away, except among brothers or sisters.

Although these kapu were strong in all families, they were especially important for chiefs, and this may account for the rarity of clothing associated with specific chiefs in museum collections. Traditionally, the clothing of the high-ranking chiefs required the prostrating or sitting kapu even when carried by an attendant—personal items carried one's personal kapu. Formerly, families who did not adhere to clothing kapu were considered careless and were thus made vulnerable to sorcery. Even
Clothing evolved along with the changing world views of the Hawaiians. The so-called Mother Hubbard dress was introduced by missionaries in an effort to cover the unclad. These loose gowns, which often hung free from the shoulders without a yoke, were made of imported cotton or barkcloth and became a prototype for the *mu'umu'u*, still a popular style of dress among Hawaiians. More elegance was added with the addition of a yoke and train, which developed into a style called *holoku*, often worn today for formal Hawaiian occasions. Clothing of the chiefs during the 19th century, however, was based on European high fashion, with elaborate silk dresses for the women and military style dress of the men.

**Tahiti and the Society Islands**

Tahitian clothing also served as a visual embodiment of prestige and sanctity and was especially important during warfare and funerals. As in Hawaii, most clothing was made of barkcloth. The inner bark of the paper mulberry tree was beaten with finely lined beaters that left an imprint of fine parallel lines and was decorated by the use of leaf stamps. Tahiti also elaborated the use of fine coconut fiber. Production of coconut fiber is a time-consuming and difficult task. Only certain kinds of coconuts have suitable fibers and although twisting coconut fiber is comparatively simple, braiding it is not. Braided coconut fiber in two colors was used to form the base of the breast gorgets to which feathers, doghair, shark teeth, and pieces of shell were attached. Worn as prestigious protection and status symbols, breast gorgets also were considered appropriate gifts for visiting dignitaries such as Captain Cook, as illustrated by John Webber, artist on Cook's third voyage.

Coconut fiber also played a functional and decorative role in the fabrication of Tahitian mourning dresses from a composite of diverse materials--pearl shell, feathers, barkcloth, coconut shell, and wood were all held together by finely braided coconut fiber. The death of a chief or another important person was the occasion for a spectacular display of grief in which an elaborate costume was worn by a priest or close relative of the high-ranking deceased. A shell facemask was surmounted with the tail feathers of tropical birds, and there was only one small peephole through which to see. The chest apron was most important and was made of thousands of tiny slips of pearl shell held together in rows by fine coconut fiber to form a pearl shell fabric (Figure 1).

**Tonga**

Coconut fiber also was important in Tonga, where decorative girdles were made out of it. Here the coconut fiber was twined into small elements incorporating shell beads, the elements were then joined to form larger pieces, and finally they were overlain with red feathers. These girdles were worn by high ranking individuals, for ceremonial occasions and dance performances. More unusual clothing in Tonga was a wraparound garment
of barkcloth for both men and women. Such garments are still worn for dance performances (Figure 2).
Other wraparound waist garments called ta'ovala were usually made of plaited pandanus leaves, while others called sisi were intricately fashioned from ribbons made of the inner bark of the hibiscus tree. The type of waist garment one wore—especially the type of ta’ovala—imparted important information about the participants in the occasion as well as about its context. On festive occasions such as dance performances, sisi intertwined with sweet smelling flowers and leaves could indicate the village and/or chiefly line from which the wearer came, while members of the audience wore ta’ovala that indicated their chiefly status or lack of it.

During funerals and the mourning aftermath, the type of ta’ovala worn indicated not only the rank of the wearer and the deceased but also whether the deceased was related to the mourner through the father’s or mother’s side of the family. Those who wore the largest and most ragged ta’ovala were related through the mother of the deceased, while those related through the father wore smaller, well-made ta’ovala.

In many parts of Polynesia some pieces of clothing became chronicles of history. Important events of an individual’s life were recounted to accompany specific pieces of clothing worn on those occasions. Individuals for whom pieces of clothing were made, others who wore them, and those to whom they were given were all remembered and included in recitations about people and historic events. In short, clothing in Polynesia was not just something to be worn. Rather, clothing had to be appropriate for the occasion and, in addition, had important sacred, ceremonial, social, and historical dimensions.

Micronesian Mariners

The 2,500 islands of Micronesia are scattered over an area larger than the United States of America but consist of only 1,260 square miles of land. Although there are a few high islands of volcanic origin, most are low coral atolls. Each inhabited island with the waters around it produced the basic essentials for living. However, overseas trading was a feature of Micronesian life. Nearly every place produced a specialty—fine mats, unique dyes, special shell ornaments—and exchanged it for something unusual from another area.

Micronesians were intimately dependent on the sea and survival depended on knowledge of it and continual rapport with it. All Micronesian cultures were concerned with three important aspects of the sea—how to get across it, how to exploit it for food, and what to do when devastated by it (by hurricanes, tidal waves, or storms). The ever-present possibility of the destruction of resources necessitated that small low islands be linked in a mutual economic system with high islands.

Material objects in Micronesia were fewer and less spectacular. Some clothing was made of finely plaited pandanus leaves with intricate black designs on a natural ground. Most ceremonial clothing, however, was ephemeral and made of flowers, leaves, and fiber for specific occasions. More important for ornamentation was tattoo that had the distinction of permanence. Shells, intricately carved and strung, were worn as ornaments as well as used as currency.

Melanesian Bigmen

Melanesia was the traditional home of "bigmen," a pidgin English term that characterized leadership based primarily on achievement. The leader
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Melanesian Bigmen

Melanesia was the traditional home of "bigmen," a pidgin English term that characterized leadership based primarily on achievement. The leader
in many Melanesian societies was (and is) often a self-made man who becomes a leader by aligning followers (in contrast to Polynesia where chiefs are born to their potential positions). A Melanesian leader becomes a bigman because he possesses skills that command respect in his society to a superior degree, such as bravery, gardening prowess, and magical powers. Such an individual may amass goods from his followers and have great public giveaways to others—which other bigmen will then try to outdo. The erection of a men's house, the manufacture and consecration of slit-gongs, the attainment of higher rank in graded secret societies, or the sponsorship of funerals or other religious ceremonies were traditionally occasions for such giveaways and also occasions for displays of clothing and personal adornment. Selected individuals impersonated mythical or ancestral spirits, and clothing—consisting of masks and otherworldly attire—emphasized the superhuman effect.

These rituals included drama, music, and dance. The performer might play a drum to form a rhythmic environment for his steps. Basic dance movements were those of legs and bodies moving primarily up and down—a rhythmic bounding enhanced by clothing made up largely of attachments. Bird of paradise and other feathers, cuscus skin, gourd penis sheaths, leaves, and shells all conspire with the movements to present a visual manifestation of rhythm. Often celebrating head hunting, warfare, and funeral rites, clothing was aimed at spectacular display by bigmen and their followers.

Important items of clothing included dance costumes and masks that often hid the identity of the wearer. These masks were especially important in New Ireland and the New Hebrides (Vanatu) where they were worn for funeral rites and for the progressive advancement within secret societies, each grade of which had its own symbols and masks.

In New Guinea, barkcloth clothing developed in many styles. Whimsical designs combining geometric and animal forms characterized the mourning garments worn by the women of Lake Sentani. Long, narrow loincloths painted red and grey were worn by men in other areas, while huge barkcloth masks were worn by sea spirits in Papuan Gulf villages.

This short exploration of clothing in a Pacific perspective has only touched on a few of the many ways that studying clothing can also help us to understand society. In each area clothing differed, not only in style but also according to context and prestige of the wearers. Clothing and ornamentation are visual representations of social relationships among people, the gods, and the environment. With this perspective, we can appreciate clothing not only as fashion but as part of social action.

References
DRESS AND ADORNMENT OF PRE-EUROPEAN HAWAIIANS

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Introduction

The discussion presented here will be concerned with the clothing, accessories, and other types of bodily adornment used by the Hawaiians around the time of European contact. The benchmarks for separating artifacts made prior to European contact from those influenced by Europeans are the documented collections, sketches, and diaries made by Captain James Cook and his men during their stays in the Hawaiian Islands in 1778 and 1779. This material is an important guide in trying to determine what is uniquely Hawaiian since the Hawaiians were quick to take advantage of "new" technologies such as the use of metal for tools. We are fortunate that Cook was on a scholarly-oriented voyage, for the records kept were more detailed than they might have been for a more commercial venture. Unfortunately, there were no clothing researchers aboard to ask the Hawaiians why they wore what they did. Some inferences can be made, but please understand that these are only inferences.

First we will examine some of the background factors that influenced the life of the Hawaiians before we look at the specific items of apparel.

Resources

The Hawaiians first came to the Islands in double-hulled canoes around 300 to 500 A.D. They brought with them some 25 types of plants, including the coconut, sweet potato, sugar cane, and paper mulberry for tapa. They also brought pigs, dogs, and the jungle fowl (a type of chicken). In addition to these material possessions, the Hawaiians brought with them the traditions and skills of their Polynesian heritage. With time, these traditions and skills led to the distinctly Hawaiian customs and artifacts known today.

The resources available in the Islands for producing clothing were limited. There was no source of metal for tool making, not was there a tradition of metal tools in Polynesia. The Hawaiians used stone, coral, bones, shells, sharks' teeth, sharks' skins, and other such items to shape their artifacts.

While there was a tradition of making cordage for nets and for lashings, as well as a tradition of plaiting grasses and fronds, there was no tradition of weaving. From today's perspective it seems that there was probably an inadequate supply of fibrous plants to encourage the development of weaving such as occurred with the Maori in New Zealand, another Polynesian cultural group.

Climate

The climate of Hawaii is generally warm with no wide temperature fluctuations. This meant that clothing designed for protection from cold was not generally needed. In the higher elevations where it can get cold enough to snow, ti-leaf capes would have been worn. These capes, made of coarse netting covered with leaves from ti plants, were used throughout Polynesia as protection from cold and rain.
Sandals would have been constructed out of available materials as needed to protect the feet from coral or lava rocks.

From a researcher's standpoint, one drawback to the warm, moist climate is that it contributed to the rapid deterioration of biodegradable artifacts, making it difficult to reconstruct the daily lives of the Hawaiians.

Religion
Religion permeated the lives of the Hawaiians. They believed that the chiefs were direct descendants of the gods. These beliefs, coupled with the availability of lands that allowed the production of abundant food, led to the development of a very strong social class system. Rules not only limited what could be worn by the commoner but even restricted the right to produce certain items of clothing to members of the royal class.

Basic Clothing Items
Chiefs and commoners alike wore the same basic garments made from tapa or barkcloth, though the barkcloth worn by the chiefs was probably of better quality and was more richly decorated. All might go nude in public on occasion, especially when swimming or bathing.

The women wore a pa'u or wrapped skirt made from a sheet of barkcloth about three yards long. It was wrapped around the lower part of the body and fastened by tucking in the end. Approximately one yard wide, the tapa reached from the waist area to about the knees. Women of high status would often have several layers of barkcloth in their skirts, each decorated in a different pattern. Lower class women might have worn a garment that more closely resembled the man's malo. Children went naked.

A man would wear a malo or loincloth. The malo was a strip of barkcloth about a foot wide and three to four yards long. It was put on by holding one end under the chin. The strip was passed between the legs, wrapped around the waist, hooked around the original piece, and returned to the front where the end was tucked in. The end piece was released, allowing it to hang free in the front. Usually this end would be printed or dyed differently from the rest of the malo.

It appears from the drawings of European visitors that there were different ways of wrapping the malo. Unfortunately, we cannot be sure of such details, as it is known that the artists did not always record what they saw but would combine details and alter features to make the final product more acceptable to the European market. One such example is the anglicizing of facial features in drawings by John Webber (Kaeppler, 1978), an artist with the Cook expedition (pp. 72, 90, 104).

The Kihei or cloak could be worn by either a man or a woman. This cloak was a rectangular piece of barkcloth, either plain or decorated, that could be tied around the shoulders in a number of ways.

Barkcloth
The basic fabric, barkcloth or tapa, is called kapa in Hawaiian. The inner bark of the paper mulberry, used throughout Polynesia and brought to Hawaii by the Polynesians, made the best kapa. However, barkcloth was also made from the inner barks of other trees such as the breadfruit.

After the men cut the trees and made the tools, the women took charge of the kapa production. The process was a complicated one
involving several steps of soaking, ageing, and beating. Much of the barkcloth existing today was made after European contact. This barkcloth is characterized by designs beaten into it that give it more flexibility than that collected by Cook. The intricate carving that the beaters needed to produce these markings was probably only possible after metal for tools was introduced by the Europeans.

Colors used in decorating barkcloth included blue, black, brown, yellow, grey, and red. Both solid-colored sheets and geometric designs were used. Bits of sweet-smelling ferns could be mixed with the dyes to add permanent fragrance to the barkcloth, or the barkcloth could be stored with sweet-smelling plant leaves to add fragrance.

Kapa was used for many things besides clothing. Kapa bed covers were common throughout Polynesia. Other uses of kapa included wrapping or draping the religious images, covering kite frames, and making bandages. A twist of kapa served as a lamp wick or by itself would smolder and thus provide a means of transporting fire. The dead were wrapped in burial sheets of black or brown kapa. Black kapa was also used in various religious ceremonies evoking the spirit world, and red kapa was sacred and offered to the gods.

Bodily Adornment
Adult women wore their hair short and bleached it along the sides of the face with powdered lime made from burnt coral. A shark's tooth or split bone was used to cut their hair. Young girls wore their hair long.

Men usually wore their hair long, sometimes tying it into a knot on the top of their heads. The men also wore strands of false hair hanging down their backs in ringlets. Not much is known of this practice or the reason for it. The men have been pictured wearing their hair short but with a central crest like the helmets mentioned later. Some historians believe this form of haircut was used for mourning rather than as an everyday style. Hair helmets with similar crests were collected by Cook. Whether these helmets were trophies of war, ceremonial objects, or wigs is not known.

The Hawaiians considered tattooing a permanent means of enhancing the beauty of both men and women. Tattooing was done with bone tattooing needles and soot made by burning oily nuts. Special patterns were used to contribute to a warrior's ferociousness. Tattooing also was used to brand slaves and as a sign of mourning for a special chief.

Another mark of beauty, at least among the royal women, was based on size—bigger was considered better.

Royal Adornment
As in many cultures, the artifacts most admired today formed the regalia of the ruling class. The most important items were the feather cloaks and the shorter feather capes. The other items indicating royal lineage or status were the mahiole or helmet, the kahili or plumed staff of state and the lei niho palaoa or whale's tooth necklace. The curved pe'aihi or fan was woven especially for chiefs.

The general name for feather cloaks and capes was 'ahu'ula, 'ula being the Hawaiian term for the color red. A variation of this word was used for "red" throughout Polynesia. Feather cloaks also were made in New Zealand and Tahiti, although the methods of manufacturing differed considerably from those used in Hawaii.
The full-length feather cloak was the most important symbol of rank. Use of these cloaks was restricted to ranking male chiefs. Besides, only a ranking chief had enough people under his control to amass the number of feathers needed to produce one of these magnificent objects. The Kiwalao cloak is an excellent example of the elegance of such cloaks. This cloak is 61.5 inches long and 99 inches wide. Kamehameha obtained this cloak after killing his half-brother Kiwalao in the struggle for supremacy of the island of Hawaii. Cloaks were often one of the spoils of war. They served as a means of identifying a leader and thus were worn into battle by chiefs. Some believe that the heavy cloak afforded some protection from projectiles by disguising body contours and adding padding.

Throughout Polynesia red was considered the color of the gods and of royalty. In time yellow became a symbol of status in Hawaii because of the scarcity of the yellow feathers of the 'o'o and mamo birds.

The long cloaks are considered to be an end product of an evolutionary process. The original feather cape was a rectangular one with the bottom slightly wider than the top. The ti-leaf cape could have served as the common ancestor of the capes used throughout Polynesia, with each area developing its own style independently.

Early feather capes had a coarse netting base similar to a fish net, much as the rain cape did. The feathers used were those of the jungle fowl and the frigate bird because they were large enough to cover the mesh completely. The large feathers were attached to the foundation netting starting at the bottom and working upwards. At the top, a strip of kapa several inches wide was sewn to the foundation to cover the wide mesh. Pieces of bird skin with the feathers still attached could be glued to the kapa, thus allowing the use of the prized red and yellow feathers. These feathers could not be applied to the netting directly as they were not large enough to cover the spaces. Eventually, the method of hand knotting a fine mesh was developed, and the smaller feathers could cover this mesh. The feathers were made into bundles and stored until enough were accumulated. These bundles would then be fastened to the mesh by a knotting technique.

The large designs worked on the capes in contrasting colors of feathers included such geometric motifs as triangles, diamonds, and circles. The edges might be set off with wide bands in a contrasting color. Red, green, and yellow were used for both background and motif. Judging from existing examples and illustrations, black was used only for motifs. A small band was used to cover the olona around the neck area. Olona ties would fasten the cape around the neck.

Olona, a fibrous vine grown in the hilly regions, was used to make the strong, durable thread used for the netting in capes and for attaching feathers. Threads could be produced in a range of thicknesses from those as fine as modern sewing threads to heavy cords for lashing. Growing the vines for their fibers became a commercial industry for a time in post-European Hawaii.

A helmet completed the chiefly regalia. Wearing a helmet would make a chief appear taller and more visible to his people. Helms varied in style from island to island. The helmets with a short, wide crest are believed to have come from Kauai. Helmets with the tall, narrow crest, with a shape resembling the helmet worn by a Roman centurion, came from the island of Hawaii, the Big Island. This latter style became fashionable throughout the islands after Kamehameha united the islands in 1795.
The base for a helmet was made from the split aerial roots of the 'ie'ie vine. Feathers could be applied by fitting a fine mesh netting to the base. Feather bundles were tied to this mesh. Feathers could also be attached directly to the base. Plain helmets were worn by lower status warriors and were sometimes made more decorative by combining dark and light strips to form a pattern.

Besides being decorative, helmets probably provided some protection from blows during battle. A round feather band could be attached to a helmet at the edge near the face to give additional protection to the head while adding richness to the overall appearance of the helmet.

No authentic examples of the unusual gourd helmets pictured by Webber exist today, though copies have been made following his drawings. The bottoms of large, round gourds were used for these helmets and large holes were cut for vision. Smaller holes were drilled in a central line in the top of the helmet into which small leafy branches were inserted to form a crest. Strips of kapa were sometimes hung from the front, giving the impression of a false beard. It is thought that the gourd helmets were worn by the priests of Lono, the Hawaiian god of peace and happiness.

Mats are believed to have been used as stomach and chest protectors during battle. At least three of these mat-like objects covered with feathers still exist. These were probably used by the royalty to shield themselves from stones flung by the enemy.

Another unusual piece of royal clothing, the Sacred Sash of Liloa, is a symbol of the highest authority of Hawaii. Legend says that it was made by Liloa for his son Umi and used at the investiture of Umi as ruler around 1475 A.D. The sash is 11 feet 10 inches long and 4.5 inches wide. It is made of a net of olona threads to which is attached, on both sides, red 'i'iwi feathers and a border of yellow 'o'o feathers. At one end are three rows of human teeth separated by feathers. How the sash was used is not known. Kamehameha I is depicted wearing it in the statue placed in front of the Judiciary Building in downtown Honolulu. The drape is pure fantasy on the artist's part.

Leis were a popular item of adornment for the women of Hawaii. The feather lei, or lei hulu, was the only feather item a royal woman could wear. As with the cloaks, the feathers were made into bundles and stored until there were enough to make a lei. The women would then tie the bundles to a base of braided fibers. The bundles could be tied to stick out or to lie against the central cord. Feathers of differing lengths and bands or helical stripes of different colors allowed the women to create many different kinds of leis. Today's lei-making techniques are different and reflect the availability of generous supplies of feathers.

The whale tooth lei, or lei niho palaoa, was a symbol of royalty worn by both men and women. The central pendant essential to this style of lei is a curved hook-like piece that has been compared to the shape of a protruding tongue. Despite the name, whales' teeth were seldom used to make the pendant. The classic support for the pendant is a bundle of strands of braided human hair. The sizes of these bundles, as well as of the pendant, vary. Examples collected by Cook were smaller than more modern examples. The central pendant shape is still being used for jewelry today.

In addition to the permanent leis, the ancient Hawaiians would also make leis of flowers or fruits. These could be used as necklaces or as
head ornaments much as we use leis today. A number of the traditional materials for making leis are still in use today. Maile, a vine with sweet-smelling leaves, is given to honor a person of importance in rank or to distinguish someone participating in a special occasion such as graduation. Even puka shells, a fad of the 1970's, were used by the Hawaiians. Puka means "hole" in Hawaiian. These shells (actually the ends of worn cone shells) are doughnut-shaped, making them easy to string. Cook collected a necklace of puka shells strung intermittently with seeds. Other materials of ancient Hawaii still being used today include kukui nuts and Niihau shells.

Bracelets and Rings
The Hawaiians used many other ornaments, such as bracelets and rings. One example is a bracelet collected by Cook that had thin plates of turtle shell cut to size and shaped. Pieces of bone or tusk also were cut to the same size but had protruding knobs carved in the form of human heads. Bones were carved in the shapes of turtles and tied on as bracelets or rings with strands of braided fibers. More simply shaped bones or tusks, shells, and seeds also were used.

The Hula
The Hawaiians had specialized ornaments for such activities as the hula. One sketch by Webber shows men doing the hula wearing fancy malo or loincloths, dogtooth anklets, and boar tusk bracelets. The anklets, made from the canine teeth of dogs attached to a heavy netting, weighed about eight pounds each. When shaken, the anklets make a clicking sound. Anklets also could be covered with shells or seeds.

Dogs were considered a delicacy by the ancient Hawaiians and were raised as food, being fed poi (mashed taro) to fatten them. It was probably not too difficult for a chief to acquire enough teeth to outfit his hula dancers.

Fans
The feathered staff or kahili was carried wherever the chief went. It served both as a standard for the chief and as a fan. Pictures show chiefs being fanned with the traditional kahili. Pre-European kahili were small in size, perhaps three feet long, and were decorated with feathers and dog hair. The modern kahili may be as much as 10 feet high and made from crepe paper, flowers, or other materials in addition to feathers. These kahili are carried or used only as symbols of special occasions as they are too large to use as fans.

The large curved fan or pe'ahi was supposedly reserved for royalty. These fans were made from the fronds of the pandanus tree and could be decorated with human hair. Other types of fans were decorated with feathers. Commoners used plainer fans. The use of pandanus fronds or lau hala for making objects such as fans, baskets, and mats is a tradition still being practiced today.

Conclusion
Much of the way of life discussed here slowly came to an end after Cook's arrival in the Islands due to the introduction of new technologies and the dying out of the underlying beliefs. Today there is a revival of interest in the early Hawaiians' way of life. This revival is especially
strong in the arts and crafts areas. In some instances, efforts are being directed toward the re-creation of traditional crafts such as the study and experimentation in the lost art of Hawaiian tapa making. In other cases, the old forms have been adapted to new techniques such as the use of tapa designs in needlepoint. Whatever the direction, these efforts have resulted in a deeper appreciation of the heritage of the Hawaiians and richer lifestyles for all of us.

Reference
Kaeppler, A. (1978). Artificial Curiosities. Honolulu: Bishop Museum Press. Note: This catalog is an excellent source of illustrations of Hawaiian artifacts and may be ordered from the B. P. Bishop Museum, 1525 Street, Honolulu, HI 96817.

DESIGNS OF HAWAIIAN WEAR:
AN EVOLUTION IN HISTORY

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The history of Hawaiian wear has been the focus of my interest for several years. It began with a newspaper collection--a sample of which you saw on display at the University of Hawaii. It is interesting how our department became the repository for this material. In 1971, the buyer of Hawaiian wear for Sears Roebuck, upon retirement after 25 years of service here in Honolulu, gave our department a large portion of her personal clipping file on Hawaiian wear. This treasure trove of material included not only store ads (she kept track of her competition so there were ads from competitors such as Liberty House, Mclnerny, and others) but also articles about the industry, buyers' catalogues, and market week programs dating from 1947.

In 1972, I received a grant to preserve and organize this material. I have continued to update this collection by clipping the store ads, which identify the manufacturers, from the daily papers. At the present time, this collection is the only visual record of Hawaiian wear in our state.

While researching this material, I observed the extensive variety in the design details used and concluded that a design reference book would be advantageous for designers, educators, and historians. I envision a publication that will not only be an illustrated history of the evolution of Hawaiian wear but also will be a handbook of designs illustrated by sketches of the garments from the newspaper ads. With the help of two student artists, I now have over 800 garment sketches organized in the following manner. Figures 1 and 2 are examples of designs grouped by garment style, the holomu and the tent respectively. Garment details also are organized by type and grouped together. Examples include the puffed sleeves in Figure 3, the ruffling trim in Figure 4, and the ethnic influence (Chinese) in Figure 5. This collection will be published under the title, "Designs of Hawaiian Wear--An Evolution in History." My presentation this morning will illustrate this design history.
A short time ago, there was a major state-supported promotion entitled "Discover Hawaii." In reviewing the history of Hawaiian wear, "discovery" has been the key to each stage in the industry's growth. The foundations of our garment industry can be traced to what "discovery" brought to these islands in the 19th century. There were two significant events. First was the arrival of the missionaries in 1820. They came at a time of upheaval. King Kamehameha I was dead, the old religion was destroyed, and the native population had been decimated by disease. These first missionaries, in order to carry out their mission of saving souls, were instructed to establish churches, to obtain an adequate knowledge of the language, and to give the people a bible and the skill to read it. Many people believe that the missionaries' most valuable contribution to the Hawaiian people was that they established a written language, printed it, and taught the people to read and write it.

Inadvertently, the contribution of the missionary wives was one of fashion. This was the first time the Hawaiians had come in contact with a group of foreign women, and it is very understandable that they would be intrigued by the women's clothing. For example, the dowager Queen Kalakua brought a bolt of white cambric to the missionary wives and requested a dress like theirs be made for her. Diaries report that the Queen had "limbs of giant mold" and weighed some 300 pounds. The missionary women met the challenge by raising the waistline of the 1819 style to above the bustline--thus creating the type of yoked garment sketched in Figure 6. Eventually this style became known as the holoku--a name created from two Hawaiian words, holo meaning to go and ku meaning to stop. Roughly translated, it meant a garment easy to move in. Little did the missionary women realize they had designed a garment that would follow the western fashion trends including the bustle and train of the 1880s, the large leg-o-mutton sleeves of the 1890s, and the princess lines of the 1900s and would remain Hawaii's most elegant garment throughout the 20th century.

In the 19th century, it was customary to wear a chemise. The Hawaiians adopted this underdress which became known as the mu'umu'u, a word meaning "cut off," since it was shorter than the holoku and often had no sleeves. This utility garment, shown in Figure 7, served as a slip, housedress, sleeping dress, or swimming dress rather than a street dress.

The second event significant to the garment industry was the importation of foreigners to work on the plantations. By the mid 19th century, Hawaii had entered into the world market and needed a steady economic base to survive. To meet this need, after the demise of the whaling trade, Hawaii turned to agriculture. The cultivation of sugar, coffee, and later pineapple required a labor force that Hawaii did not have. The gold rush in California had enticed young Hawaiians from the islands,
and disease continued to cause the population to decline. The first contract laborers to come to Hawaii in 1852 were Chinese, and over the years Japanese, Koreans, and others migrated to these shores.

Their clothing needs were first supplied by their own labor, but by the 20th century the population increase had exceeded the home sewers' abilities to produce all the necessary garments. Some ready-made clothing was available, but it did not meet the sizing needs of the petite Orientals or the majestic Hawaiians. As a result, in order to meet these needs, a number of "made-to-order" businesses were established. Many proprietors were of Chinese or Japanese origin, and their skills with the needle trades set the pattern for high quality workmanship that has become the standard for garment construction in Hawaii.

In 1922, work clothes such as shirts, pants, and overalls began to be manufactured on a wholesale basis. One of the favorite fabrics used for the sturdy shirts was a plaid denim known as palaka. Through its use over the years by ranchers, plantation workers, and entertainers, it attained the status of being the fabric of "old" Hawaii. The "discovery" and the acceptance of palaka by teens in the '20s and '30s raised it to a fashion fabric used in a variety of garments up to and including the present.

Another important "discovery" in the 1920s was from the "made-to-order" business. Dressmakers, at the request of customers, began to use silks or rayon prints as well as the cotton "Yukata" for western style clothing. Musa-Shiya the Shirthmaker was the first business to capitalize on the use of these bright prints for men's shirts.

The 1930s was a decade of "discovery" and growth. Throughout the 1930s, the Honolulu Chamber of Commerce sponsored an annual "Products Week" with the theme "What Hawaii Makes--Makes Hawaii." The purpose was to promote established businesses and to encourage new ventures. The most important new venture for the future of the garment industry was that of printing fabrics locally. These early prints were designed and advertised for draperies, slipcovers, or pillows.

In 1936, two new companies, Kamehameha Garment Co. and Branfleet, which were established with the expressed purpose of manufacturing designer sportswear, quickly adopted the new print fabrics. The course of the garment industry had shifted from utility clothes to fashion apparel with an emphasis on bright prints of Hawaiian motifs.

The sport shirt of the 1930s, designed with no tail, could be worn in or out and was often advertised as an "in-outer" shirt. When these shirts began to be made from fabric that had been locally printed with bright florals or other Hawaiian motifs, they were sometimes referred to as "Aloha" shirts. It was customary at that time to use the "Aloha" prefix for many types of products. In 1937, Ellery Chun, a local manufacturer, registered the term "Aloha Shirt" and owned it for 20 years. In that same year, Pan American introduced passenger travel on its China Clipper, bringing more tourists to Waikiki, the popular playground for celebrities. The "Aloha" shirt in bright rayon prints, known today as "silkies," became the trademark and symbol of Hawaii.

At this same time, manufacturers used Hawaiian prints in a variety of ways. In addition to the standard all-over print, the most popular variation was a specially placed block print. Today we would call this an engineered print. The block-printed design might be a panel, a border, or
just a single motif and could be found on many types of clothing produced here. Examples include playsuits, swimwear, blouses, dresses, lounging pajamas (also known as hostess pajamas), side wrapped housecoats, and the 36-inch zippered front hostess gowns. By 1939, manufacturers in Hawaii were shipping their product not only to the mainland but also internationally to Europe, New Zealand, and Australia. When war was declared in 1941, the increase of military personnel on the islands brought increased demands for souvenir clothing, and the favorite item was the Hawaiian print shirt.

By 1946, the print was the most important feature of the garment. Each manufacturer had special prints designed for exclusive use. These "confined" prints have been and still are Hawaii's trademark. Because the fabrics were hand printed, a variety of prints in small quantities (a few hundred yards) could be ordered. Each garment sold was advertised by its print, such as ginger, double hibiscus, mango, seahorse, shells, malolo-flying fish, around-the-island map print, and the dictionary print. The design lines of these garments continued the trends of the 1930s and included the favorite housecoat, lounging pajamas, blouses, shorts, pedal pushers, swimwear, dresses, and in particular the sarong that had been made famous by Dorothy Lamour. Merchandising practices changed and retailers began displaying Hawaiian wear in their store windows.

The interest in Hawaiian wear continued to increase. Designers had already brought into the market the regal gown of old Hawaii, the holoku (Figure 8), as well as the transformed mu'umu'u (Figure 9), making both of them in bright Hawaiian prints. "Aloha Week," Hawaii's annual fall festival, was initiated in 1947 to promote and preserve the Island's culture. With expanded community interest, the muumuu designs became varied with ethnic influences. The China or Pake muu muu was one of the most popular styles (Figure 10). In 1949, a new style called the holomu was introduced (Figure 11) which combined the fit of the holoku and the length of the muumuu, hence its name. It became the "Ford" of dressy Hawaiian wear for the next 10 years.
Also in 1949, the Hawaiian Fashion Guild was organized for the purpose of promoting locally produced fashions. The Guild sponsored annual fashion shows in the 1950s for both local and mainland buyers. The high styles of the period continued to be the strapless dress, sarong, holomu, swimwear, and a new creation for entertaining or leisure wear, the "tea timer." This last garment was characterized by the long slit tunic with pants of matching length. The full muumus were increasing in popularity, and the large, bold, bright Hawaiian prints were a trademark of the 1950s. In contrast to these prints, Betty Manchester initiated the return to the old by launching a collection of muumus using small 19th century style calico prints. Twenty-three years later, the "Bete" collection is still the leader in this style.

The Aloha shirt in the 1960s was still brightly printed and generally confined to leisure wear. Efforts made to promote the wearing of Aloha shirts for business met with some resistance (Appendix). As a result, an alternative design was offered, that of the "jac" shirt. This short sleeved adaptation of the Eisenhower battle jacket style was not only cool and comfortable but also was acceptable to businessmen. Other men's wear introduced during this period included the Aloha sportscoat of cotton broadcloth in a Hawaiian print and a specially designed formal shirt to replace the usually warmer dinner jacket.

Women's wear of the early 1960s reflected the major movies of the period. For example, "The World of Suzy Wong" inspired a dress-length sheath with a hemline which curved up into the side seams that, in turn, remained open to almost the thigh line. Not at all shocking by today's standards, it provided the transition for the incoming shorter skirts. The dance craze of the times was the "Twist" and innovative designers added fringe and tassels to emphasize motion. One even named her sheath the "Twist muu."

Fun fashions were used as fundraisers when the Honolulu Symphony staged a promotion entitled "Muumuu Mania." Designers were urged to extend their imaginations and create garments to such songs as "Mimi," "You Are Too Beautiful," and "Over the Rainbow." Creativity was the key word, and as the confining sheath became more popular, innovative jumpsuits provided freedom of movement. Easy fitting sun clothes known as "Jams," inspired by cut off pajamas, hit the beaches. Styling for Juniors became a larger segment of the local production, as well as designing for majestic queen-size figures. However, as the decade closed, the general styling of Hawaiian wear centered around the long slim sheath, straight tunics, and pant coordinates.

Hawaii's manufacturers kept up with the national trends in fashions and in 1970 entered the skirt length controversy with flare. One innovation was the "Mini, Midi, and Maxi" all in one garment. This compromise was a swinging tent style with an asymmetrical hemline that went from thigh length to floor length. Another compromise was the "Hot Pant" ensemble which combined the shortest of shorts and the longest of skirts in "jumpsuit" style. Other trends were polyester knit pantsuits and caftans in bright acrylic prints; the one-size-fits-all caftan was a merchant's dream. Men's wear also entered the 1970s with some variation. There were polyester knit shirts, sport shirts styled after the "Safari" jacket, and a new way of sewing a garment inside out dubbed the "reverse print." In women's wear, the sheath of the 1960s continued to be the major
garment style of the 1970s; only the prints changed. By mid decade, the matching Aloha shirt and sheath, in both long and short versions, were everywhere including family groups. While the prints remained exciting, the garment styles had stagnated and something needed to be done. "Discover Hawaii," a 1977 market promotion sponsored by the Hawaiian Fashion Guild and the State Department of Economic Planning and Development, infused the industry with enthusiasm and renewed creativity in design. A renaissance of the creative designs of the 1930s and 1940s, in both garment and fabric styling, was taking place. Comfortable cotton/polyester knits and engineered prints reminiscent of the earlier hand-blocked designs were launched for both men and women. The "silkses" adapted from early rayon prints were reintroduced. Hawaiian fashion magic returned with variety in garment styles for leisure wear and sportswear fashions for around the world. Styles included the wrap dress that was reminiscent of the wrap style housecoat of the 30's. There was evening magic in the floating chiffons and the updated long, slim sarongs of the 1940s. Also in the feeling of the 1940s and 1950s were delightful dresses with that strapless magic so popular for its easy elastic fit.

By the 1980s, the market was turning around. The "re-discovery" of garment stylings coupled with print and color magic was apparently the necessary combination for success. Today, outside of sugar and pineapple, the garment industry is the largest exporter in the state.

Appendix

Aloha Shirt

In the 1920s, the Honolulu dry goods establishment, Musa-Shiya the Shirtmaker, began producing men's sports shirts out of colorful Japanese fabrics, and a new style was born. It was not until much later that the term "Aloha" was used for these shirts. The name first appeared in an advertisement in the Honolulu Advertiser on June 28, 1935: "Aloha shirts—well tailored, beautiful designs and radiant colors."

During 1935 and 1936, the word "Aloha" was attached to many types of merchandise. There were "Aloha" tea sets and "Aloha" coasters, so the term "Aloha" was not a unique designation for shirts and sportswear. In 1936, application was made for registration of a trademark for "Aloha Sportswear," and in the following year the trademark "Styled in Hawaii: Made in Hawaii" was established. The registration certificate specified that "...such Label be applied directly to men's, women's and children's shirts of every description, color and design."

Ellery Chun, who had applied for the trademark, was granted exclusive use of the label throughout the territory of Hawaii for 20 years, and during this time all bright print shirts came to be called "Aloha shirts." But it took another 25 years before these shirts were accepted for general wear in Hawaii. The development of the Aloha shirt fashion was slow and arduous.

In 1946, the Honolulu Chamber of Commerce appropriated $1,000 to study and prepare suitable designs for clothing that businessmen could wear during Hawaii's hot summer months. Subsequently, a resolution was passed that allowed city and county employees to wear sport shirts from
June 1 to October 31 each year, but the Aloha shirt was excluded. The resolution allowed for "open-collar sport shirts in plain shades, but not the ones with the loud colorful designs and patterns...."

In 1947, the first Aloha Week was established. City employees were then allowed to don Aloha shirts for business, but only during the single week each year.

In 1954, some local businesses began to encourage broader use of Aloha shirts. Employees of the newspaper, the telephone company, and tellers in Waikiki banks were directed to wear Aloha shirts throughout the humid summer but were cautioned that they be "clean and tucked in." The newspaper editorialized the move and expressed hope that other businessmen would join in wearing local attire.

By 1958, the Territorial Government was interested in encouraging the growth of garment manufacturing in Hawaii. A conservative form of Aloha attire was suggested by the government, which informed garment manufacturers that "practically every department of the Territorial Government will permit all its male employees to wear plain, short-sleeved sport shirts of subdued colors beginning on or about June 15 and extending through the end of Aloha Week. They will be required...to wear these shirts tucked in. Aloha shirt prints will not be permitted, but it is safe to assume that a conservative design on the pockets will be generally allowed."

Some four years later, a trade association of local garment manufacturers, the Hawaiian Fashion Guild, staged "Operation Liberation." The operation was an attempt to encourage acceptance of printed Aloha wear for business attire. The Guild presented each member of Hawaii's State House of Representatives and State Senate with two Aloha shirts. Muumuus were presented to the women. As a result, a Senate resolution was passed urging regular use of Aloha attire from Lei day (May Day) through the summer.

It was another two years before the community generally began to accept Aloha wear as an appropriate business attire. In 1965, the Hawaii Fashion Guild suggested that printed shirts and muumuus should be worn every Friday during the summer. The idea caught on and it grew. Now every Friday is "Aloha Friday," and most businesses not only accept but encourage their employees to wear Aloha attire on that day each week.

PANEL DISCUSSION: TEXTILES DESIGN AND USE IN HAWAII

Dorothy Brockhausen, Stylist
G. Von Hamm Textiles

My company, G. Von Hamm Textiles, is a converter. We serve as a catalyst for the industry; as such, we have to be sensitive to everyone's needs.

We pride ourselves on having the largest library in textile design on the island. When an apparel manufacturer comes to us with a request, we select designs from our collection and review them with the manufacturer to reach agreement on a concept. From that concept, our art department works up a design. The next step is to produce variations of the design to achieve a final product that satisfies the manufacturer.
Once we have produced a satisfactory design, we work up additional colorations. Our business is different from converters on the mainland in that we don't have as many seasons to consider unless we are working with customers who sell on the mainland. In Japan, where we do most of our printing, the minimum requirement to run a design is 3,000 yards with a minimum of 600 yards for any one coloration. However, within these restrictions, we can have any combination of colorations. These colorations tend to be a reflection of our environment—the bright flowers and brilliant blue of our sky, for example, influence the colorations of our garments.

In developing designs here in Hawaii, we have to consider three different markets. For the local market, we must create designs that will be accepted by the people who live and work here every day. For the mainland market, our designs must have a universal appeal. For the tourist market, we try to provide designs that are fun and lighthearted; we want these designs to communicate a feeling of having been to Hawaii without even having to say it. The ultimate goal, of course, is to find those universal designs that will appeal to all three groups.

A determination also must be made as to what type of fabric to use. Our function as a converter is to have made sufficient contacts for all available fabrics so we can offer the right fabric at the most competitive price. To facilitate this process, we work with trading companies. Since most of our printing is done in Japan, we use the services of some of that country's largest trading companies. They are responsible for obtaining the greige goods, setting up printing schedules with the printer, and exporting the goods to Hawaii or other destinations designated by the buyer.

We also get requests to have designs printed locally. We have a hand-screening operation consisting of four 30-yard tables and a 40-foot curing oven. We have an art staff to do the technical work and a darkroom to develop the screens. Consequently, we are able to offer exclusive designs and yardage amounts that are tailored to merchandising on an exclusive scale.

Our company also imports its own "house line" geared for fabric stores and small manufacturers who cannot use large quantities of a given design. We try to have this open collection fill as many needs as possible so it tends to be a potpourri of fabrics and designs.

Stores may also work with us, but in a different way. The owners come to us and work through the various stages from idea to fabric design. Then they shop around for styles that fit their store image. About a year or so ago, the Waltah Clarke chain followed this scenario. They worked with us from the idea through the art to the fabric design. Then they sought out Sun Fashions for the styles and our next speaker, Joyce Arizumi, was given the challenge of finding the styles to match our fabrics.

Joyce Arizumi, Vice President
Sun Fashions of Hawaii

My company, Sun Fashions of Hawaii, manufactures both men's and women's wear. We have a misses' line and we also produce men's shirts. We have a unique concept at Sun Fashions; we use the same print in our men's and women's lines. This concept makes the selection of designs difficult because we have to find fabrics that will appeal to both men and women.
We produce the traditional reverse print aloha shirts. Men prefer muted colors for work so we give the garments a faded look by reversing the fabric. Using the same fabrication on the right side, we then have a totally different look for women's wear. We also produce the matching aloha shirts and dresses for visitors to Hawaii.

About 75 percent of our business involves using the same fabrication for men's and women's garments. Therefore, we can go through 3,000 yards very quickly and give our customers new prints to look at all the time. Approximately 20 percent of our business comes from our men's shirt line where we buy designs specifically for men. One group of graphic prints is done locally with G. Von Hamm Textiles and it is printed here in Hawaii. We have an in-house artist who does the sketching for this type of shirt. About five percent of our business is specifically for women. For this component of our business, we may go to a showroom and select a house print.

Textile design is probably the most important aspect of the local business because we do not have the labor force that can be found elsewhere. That is why we have to work so closely with the converters. We tend to produce the same styles season after season so we don't have to worry much about restyling but we do have to be concerned with keeping the print story fresh and exciting.

Jeffrey Berman, Designer
Fabrications and Jeffrey Barr

My business is very different from Joyce's business, yet, except for price level, it is directed at the same type of customer. Initially, we opened a retail shop called Fabrications to provide clothing for the local market, mainly for what I call "resort city" dressing. Our primary target market was professional and traveling women.

Two years ago, we started a wholesale line called Jeffrey Barr. The line was created because, as our business expanded, we needed a greater variety of items. My factory is set up to produce high-priced clothing and I found it very difficult to use the same facilities for less expensive garments. However, we could not find the apparel we wanted in the wholesale marketplace. Because sportswear is considered de rigueur in this area, little "city lady" apparel is available from other manufacturers. Also, at about that time, we were asked whether we would participate in an apparel fair in New York and offer a resort line. This request gave us the impetus to develop the Jeffrey Barr line into a wholesale business aimed primarily at the mainland market.

You will note that Joyce and I have used the same fabric in some of our garments. How can someone like me use the same fabric as someone like Joyce and come up with something more expensive? Consider what we have done with the fabric. I engineer the garments and Joyce does not. Also, because Joyce's business is very large and mine is very small, I have to determine what to do with my excess yardage. When I do produce another garment from excess fabric, there is apt to be so little yardage compared to Joyce, I do a little more advanced type of styling; the women
who buy in my price range want items that are different from the basic styles. Because of these differences, we can each use the same fabric, but in different ways, to meet the needs of our respective customers.

I have also done some fabric designing myself; I designed the print for my City Lights collection. The original print was first used in my garments about two years ago and an adaptation appears in my current collection.

One of the problems we all have in Hawaii is that of being typecast. However, we do have a new crop of designers who are looking at clothing design and manufacture not as production of Hawaiian apparel but as production of apparel in Hawaii. Consequently, our market becomes much broader and we become more a part of the mainstream of fashion design.

PACIFIC AND HAWAIIAN TAPA COLLECTIONS: CONSERVATION AND MAINTENANCE

Dora Jacroux
Ethnology Collections Manager
Bishop Museum

The Bernice Pauahi Bishop Museum was founded in 1889 by Charles Reed Bishop in memory of his wife, Bernice Pauahi Bishop. As the last of the Kamehameha royal dynasty in Hawai'i, Pauahi had received the Hawaiian heirlooms and other ethnographic and historical items of the Kamehameha family, and a museum was needed to contain them after her death.

Today the Bishop Museum's specimens number in the millions, including the natural history and anthropology collections. Here, we are specifically concerned with the Pacific barkcloth collection, started with the founding of the Museum and augmented ever since. The collection now includes about 2,200 pieces of Hawaiian barkcloth and 1,000 pieces from the rest of Polynesia, Melanesia, and various other areas of the world. Thanks to the National Science Foundation, the Pacific barkcloth collection has become a usable systematic research collection. The NSF grants began in 1978, and by the summer of 1982 all of the barkcloth had been cleaned, examined, flattened, photographed, and moved into a much roomier and more accessible storage area.

New cases were made to special order by the Steel Fixture Manufacturing Company, Topeka, Kansas. Exterior dimensions are 81 inches wide by 45 inches deep and 37 inches high. Double doors open the entire front of the cases so that the drawers can be easily removed. The interior drawers are 74-1/2 inches wide by 42 inches deep by 1-7/8 or 2-3/4 inches high. It was decided in the initial planning stage that flat storage would be the best way to store the collection because of the fragility of much of the barkcloth and that rolling would do more damage than good, causing stress, flaking of decorative pigments, and abrading of the specimens. It also was agreed that flat storage would be much more accessible than rolled storage, as experience with a rolled mat collection has proven that it is very difficult to use.
Before the National Science Foundation grant proposal was written, the barkcloth had to be analyzed to determine optimum size cases needed. A prototype case was put into the storage area in September 1976 as a test.

When the National Science Foundation grant was received, Pacific Regional Conservation Center (PRCC) staff were consulted to develop procedures necessary for the basic conservation and unfolding of the barkcloth as it was transferred from the inadequate old storage to the new storage. It was found that some pieces were in much worse condition that others, and additional consultation with PRCC was necessary to determine what should be done with some of the Samoan barkcloth which had been damaged by cigarette beetles.

The barkcloth storage area is on the second floor, and when the cases arrived it was necessary to enlist the help of Anthropology Department staff and others to move the drawers and cases. The real problem was getting the cases upstairs--mainly a matter of muscles.

The entire hallway of the storage area had been cleared before the arrival of the cases. They were installed two-high so the top area could be used for other storage, with baskets hung above in yet another layer of storage.

The treatment began with removing the barkcloth from the inadequate storage, which had been closed to everyone but the staff for five years. At this time an appeal was put out for volunteers through the Bishop Museum Association. We were very fortunate to have about 20 volunteers over the four years and two phases of the grants, some of whom stayed for the entire time and are still volunteering at the Museum. In fact, the project would not have been completed without their help.

It was helpful to treat the barkcloth specimens in order of accession number. The Hawaiian collection was the first to be done. This is the old storage area for the Hawaiian barkcloth. It was inadequate due to overcrowding, multiple folds in the barkcloth, abrasion as the pieces rubbed together, and the acidic wood shelves that were in direct contact with the specimens.

After removal from storage, the barkcloth was put still folded into the humidifier, which was made at the Museum and is similar to a photo-drying rack. It has an outside frame with interior sliding shelves, 30 by 48 inches, which are made of wooden frames with plastic screening over them. This so the humidified air can circulate freely between the shelves. A DeVilbis (Model 20) vaporizer, which produced cold vapor, was used in the bottom of the humidifier. Distilled water was used in the vaporizer, and it was cleaned weekly. A piece of plastic sheeting kept the vapor from direct contact with the lowest shelf. The entire structure was covered with plastic, and the humidifier was operated for an 8-to 24-hour period, depending on the thickness of the bundles. We were warned by PRCC not to leave specimens in the humidifier for too long because in our tropical climate the added humidity and limited circulation of air would lead to growth of mold. As it worked out, we were able to do about two humidifier loads in a five-day work week.

After humidification, the barkcloth was removed from the humidifier and taken still folded, one piece at a time, to the work table. The work table was covered with medium-weight blotter paper.

Each barkcloth piece was carefully unfolded, and even very brittle barkcloth had become supple enough to be opened without breaking.
Especially fragile in this respect were the oiled pieces of Hawaiian barkcloth. With the passage of time, these pieces had stiffened from their original very supple state. At this point in the process any gross accumulation of dirt or grass was shaken out.

In cases where the barkcloth was quite dirty, it was vacuumed as it was unfolded. A piece of plastic screening, with the edges taped, was used between the barkcloth and the soft vacuum brush to protect the barkcloth.

After the vacuuming, each piece was completely opened out on the table, where it could be examined for areas of caked-on dirt that could be easily removed. If such dirt was not easily removed, we consulted the Conservation Center. Removing the dirt was necessary before the overall spraying so the dirt would not become imbedded or further stain the barkcloth.

When a piece was completely opened out, it was lightly misted all over with distilled water. A small section of barkcloth with color or any kind of decorative pattern was tested to see how water-soluble the color was. If it was extremely fugitive, special precautions were taken, or it might not be sprayed or misted at all. Fortunately, very few pieces needed this special care.

The approved way of misting is to spray over the barkcloth and let the droplets fall onto it from above. Misting directly at the piece of barkcloth gets it too wet in one place and also makes it much more likely that the color will run or splotch in some way. Even misting from above has to be done with a good deal of care, as it is very easy to get too much water in one place, requiring blotting and possibly removing some of the color or pattern.

If a piece of barkcloth was mostly free of wrinkles, only the folds were misted. After misting, the folds were flattened using small pieces of blotter paper weighted down by a piece of glass, sometimes with a small bag of lead shot to add to the pressing effect. The glass can be used without the blotter paper when it is necessary to see if the edges of holes are being pressed flat and are coming together properly.

Sometimes areas do not respond to the first misting and the creases persist. In this case, the areas can be resprayed and reweighted. The weights should not be left for very long on a damp area. If there is any tendency for the barkcloth to mold or if there has been mold on the piece previously, it would almost surely show up under these conditions.

After a piece of barkcloth was misted and various creases or holes were smoothed with weights, then the weights were removed. At this point, the piece was completely covered with blotter paper. In the case of some of the larger Hawaiian bedclothes (kapa moe) or the Hawaiian women's skirts (pā'ū), which have up to 12 layers sewn together on one side, each sheet of the 12 was treated separately and a layer of blotter paper was put between each layer.

After the layer of blotter paper had been put down on a treated piece of barkcloth, another piece of barkcloth was brought out of the humidifier and processed on top of it. Pieces were usually stacked 10 to 15 layers deep on the work table, as this was the approximate number that could be accommodated in a humidifier load.

When the last piece of barkcloth had been processed, another layer of blotter paper was put on top of it, and this layer was covered with heavy
felts to help weight it down and flatten it out. The pile was then left overnight to flatten and dry. Because we were working in an air-conditioned area, where the humidity was low, the pile of barkcloth would dry in one night. The RH in the area varied between 55% and 65% most of the time, which was fine for drying barkcloth.

The next morning, the pile was uncovered layer by layer, with the felts being removed first and then the blotter paper. At this point, each piece of barkcloth had all its vital signs recorded on its catalog card, including measurements, pattern, and any cuts or holes. It was coded for further conservation, A, B, C, or D, with A being those most in need of conservation and D those that needed very little. Then a photograph was taken of each piece, with its accession number included, and for the non-Hawaiian pieces, place of manufacture, such as Tonga. These slides have been invaluable in giving a first look at the barkcloth to researchers and other people interested in seeing the collection. They have proved to be an excellent way for the general public to have access to the collection without the wear and tear of actually handling the pieces. Two identical slides were taken of each piece. One is kept with the barkcloth collection and the other set is in the Bishop Museum Photo Collection, where it is used by people who wish to order a duplicate.

After being photographed, the barkcloth was folded, if necessary, to fit into a drawer. The work table was marked on the sides to show the size of the drawers, so the pieces could be folded there to proper size. The barkcloth was taken to the drawer usually by one or two people, but sometimes three or four people were needed for an especially bulky or fragile piece. A piece of heavy acid-buffered paper was placed on the bottom of the drawer, a piece of barkcloth was placed on top, and it was covered with a piece of acid-buffered tissue. The next piece of barkcloth was placed on top of the acid-buffered tissue and in turn covered with another piece of acid-buffered tissue, so each piece had acid-buffered paper both above and below it.

As an aside, the first metal cabinets that were ordered had edges that were unsatisfactory. The raw metal edge, we found, would catch the barkcloth and abrade or tear it in some cases. Consequently, the manufacturer was requested to modify the edges to avoid this abrading. The side edge was made completely flat, and the front edge was turned under to form a triangle with the front of the drawer.

When the drawer was full, the same heavy acid-buffered paper used on the bottom of the drawer was used as a cover sheet. On this the accession numbers were written, so a glance would reveal what was in the drawer. One particular piece is very fragile and is also one that people often ask to see. A hole was cut in the covering paper as the best way to show the made up for each cabinet and placed inside to facilitate finding specific pieces. The folder that holds the list was taped on the door.

Because the specimens took up more cabinet space than anticipated, a pile of barkcloth was left on top of each case when the NSF project was completed. To take care of these 14 extra piles, three wooden cases of a design similar to the humidifier were built and put on top of the double-stacked cases. Their outside dimensions are the same as the metal limitations in the storage area, but they could be put closer together. The
long span of the shelves and the weight of the barkcloth made it necessary to have a brace to hold up the front of the shelving. It is easily removed for access, but this shelving is not as easy to use as the metal cases, partly because it is up so high.

These wooden cases are covered with sheets on top and in front to help with the dust problem. They cost about $160 each. They do not hold as much as the metal cases but are a viable alternative to the steel cases, which cost $2,250 each in 1978.

A Short Overview of Barkcloth in Polynesia

Barkcloth is made from the inner bark of various shrubs and trees. It has been made and used in tropical areas worldwide, but Polynesia is probably the place where it is most prevalent. There are various techniques and characteristics that differentiate the various kinds of Polynesian barkcloth. Hawaiian barkcloth, called kapa, is characterized as the finest of the various Polynesian barkcloths made in the late 18th and early-to-middle 19th centuries. Pre-contact Hawaiian barkcloth was as thick and rough as its South Pacific counterparts. It is thought that, when woven textiles from Europe and elsewhere were introduced to the Hawaiian Islands, the women were inspired to renovate their process so that the final product would be more similar in weight and design to the new fabrics. In general, traditional Polynesian barkcloth was made using the cultivated paper mulberry (Broussonetia papyrifera) processed by

1. removing the bark from the sapling,
2. separating the inner bark (bast) from the outer bark,
3. beating the bast using a round beater,
4. allowing this first beating to dry,
5. collecting enough of these first beaten strips to make the desired item, and
6. using arrowroot starch to adhere the separate strips to form the item.

In contrast, post-contact Hawaiian kapa was made from the bark of a variety of plants including the paper mulberry. During the cultivation process, the leaf buds on the sides of the trunk of the paper mulberry were removed to keep branches from forming, so there would be no holes in the inner bark. The procedure for processing Hawaiian barkcloth in the 19th century was as follows:

1. after cutting, the bark was removed from the trunk,
2. the bast (inner bark) was stripped,
3. the bast was then soaked for a period of a week to 10 days,
4. after soaking, the bast was given a first beating with a round beater on a stone or wood anvil,
5. then the strips of beaten bast were placed between weighted banana leaves to "ferment" for 10 days (the number of strips fermenting together would determine the size of the item),
6. the strips were next beaten with square ribbed beaters to thin and felt the layers of bast,
7. the final beating process placed a watermark in the finished barkcloth, and
8. after the barkcloth had dried, the background could be dyed and/or designs could be applied to the surface.
It was the constant work of the women to beat paper mulberry (wauke) into barkcloth for clothing, bedclothes, and a variety of other uses. A number of other plants also were used for barkcloth. Barkcloth was not made to last; it was made to be used, perhaps reused, and discarded. This, of course, compounds today's conservation problems.

The following Comments Describe Slides Shown

The basic tools of Hawaiian barkcloth-making included an anvil, a large wooden piece where the prepared bast was put to be beaten. Sometimes smooth rocks also were used as a base for beating. There are two wooden beaters, a round one for the beating-out stage and a four-sided square beater for making the impressed pattern or watermark. The two bamboo liners used to make the linear patterns are at the bottom. The three bamboo stamps on the piece of barkcloth were used to print the other patterns. The barkcloth itself is of early design.

This is the leaf of the paper mulberry (wauke) plant. Its inner bark was used to make most of the barkcloth in Hawai'i. It was cultivated by the Hawaiians specifically for making barkcloth.

This shows the early stages in making barkcloth, the inner bark itself, two of the round early-stage beaters, one smooth and one grooved, and the early stages of beating in strips.

Grooving was another process in Hawaiian barkcloth-making, which was done on some early pieces to give them texture and add a decorative quality. A smooth beater, a grooving board, and two pieces of grooved barkcloth are shown here. One is an old-style malo, a man's loincloth.

This shows lined and dotted, painted and dyed surface decoration with the liners that were used to make this type of design in the triangle. In the bamboo case are the stamps with an example of stamped surface decoration.

This shows coloring and dye utensils. The black stone bowl holds charcoal in a barkcloth bag. The gourd bowl once held red ochreous earth, an example of which appears at the top. The bowl to the left is for dye that was painted on the barkcloth with a pandanus key, which appears just above it.

Here we have a grooved hohoa (round beater) with an unusual example of red barkcloth with an old-style design. This piece was given to the Bishop Museum in 1982 by a family whose early missionary ancestors had collected it between 1819 and 1820.

This is another example of surface decoration using liners, on both the red and the black pieces.

This shows the flowers and leaves of the mamake (Pipturus albidos) plant. The inner bark of this plant was also used to make barkcloth. It has different properties than the paper mulberry and seems to be more fragile and crumbles more easily over time.

Mamake barkcloth is usually brown in color as opposed to the paper mulberry, which can be bleached to a dazzling white. This Hawaiian barkcloth shows the use of stamps in the colored design.

Here are some of the various colors of Hawaiian bed covers. These were made in the 19th century and some of the colors are not indigenous.
This shows more 19th-century Hawaiian bed covers with imported colors. The purple was made by beating blue pieces of cotton cloth over red pieces, which were also beaten into the natural color of the barkcloth.

The red and blue design is a stamped pattern on a bed cover. The dress is also made from barkcloth and is for a child.

Clothing made of barkcloth was constructed before there was ready access to other types of cloth. This is for a woman and shows a 19th-century Mother Hubbard, an antecedent of the mu'umu'u popular in the Islands today.

Part of the attraction of coming to Hawai'i is the beach and surfing. Unfortunately, I cannot show you an ancient bathing suit for, as far as we know, ancient Hawaiian sartorial splendor stopped at the shoreline when the intention was swimming.

Besides the surf, scenery is also significant in Hawai'i. Here is Diamond Head as a small respite from barkcloth and a way of saying aloha to Hawai'i as we go on to some of the other areas in Polynesia and the Pacific.

Here are some tools. The single beater is from Futuna or Uvea. The two beaters together are from Tonga, and the shall scrapers, which were used to prepare the inner bark for beating, are from Samoa.

The barkcloth here is from Uvea and Futuna and is quite different from the Hawaiian examples.

The large roll of barkcloth with two shades of brown at the bottom is from Tonga. The two examples on the wall are Samoan and the one hanging is from Niue.

These pieces of barkcloth are all from Fiji. Fijian barkcloth has elaborate stenciling, and today used x-ray film is the favored medium for cutting the stencil.

Here is a Samoan kilt or turban, with the Niue piece hanging and the Tongan roll under it.

Utensils used to decorate barkcloth in the Western Polynesian area are shown here. At the upper left are hibiscus fibers gathered and used as a brush and barkcloth used as a swab for applying dye. At the bottom right there is a pandanus-key brush and a coconut cup from Samoa, used to hold dye.

Another kind of decoration is done by rubbing. These Tongan design tablets would be put under the barkcloth and a coloring agent would be rubbed on top to produce a pattern, as we would do by putting a piece of paper over a penny and rubbing it with a soft lead pencil. The beater and lump of clay also are used in the manufacture of barkcloth.

Today in Hawai'i there is renewed interest by people of Hawaiian ancestry and others in rediscovering the crafts practiced by the ancient Hawaiians, as well as in the rest of their ancient culture. Barkcloth of kapa-making is one of the special areas of interest. This photo shows some craftspeople at work in 1982.

Some of the new tools that have been made for barkcloth-making have been copied from the older ones. The Museum collections are valuable for the craftspeople, who are interested not only in the form of the originals and materials from which they are made, but how they feel in the hand, the balance point, and even the kind of sound produced by a beater or anvil.

Among the various activities where kapa was used in pre-contact Hawai'i was in the dancing of the hula. Now various hula halau (schools) are showing a renewed interest in authentic patterns and clothing.
On their hula costumes these dancers used the patterns they found in the Museum. And if the art of barkcloth-making is again mastered in Hawai'i by enough people, the dancers may someday wear actual Hawaiian kapa.

In many cases they have adapted the patterns to fit their modern needs. Using cloth instead of kapa but still finding a way back to the ways of their ancestors, Hawaiians have used and will use the Bishop Museum's now available barkcloth collection to help them in the study and use of their ancient culture.

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PANEL DISCUSSION:
TEXTILES AND APPAREL IN THE INTERNATIONAL MARKETPLACE

Stephen K. Craven
Director, Honolulu District Office
U.S. Department of Commerce

Trading in textiles and apparel is a supremely difficult business. The obstacles, the regulations, and the competition associated with buying or selling in international markets can be frustrating in the extreme. Despite this, international trade in textiles and apparel also can be supremely lucrative. There is money to be made in trade and thousands of U.S. traders are doing just that.

For many years, the trading action for the United States has been to import textiles and apparel on a massive scale. This still holds true. We imported close to $8.7 billion in apparel during 1982--while we exported less than $1 billion. Our trade balance in textiles is much more reassuring, with 1982 imports of nearly $3 billion and exports right behind at $2.8 billion. Compared to our expectations of a few years ago, this is a quite respectable performance, but it is not good enough. As a nation, we find that 92% of U.S. manufacturers do not export. I suspect a similar figure could be found in the U.S. textile or apparel industries.

I do not know if Hawaii's experience can be considered typical. I do know there are some lessons to be learned here. We have no textile industry to speak of. Textiles are things that come from the Far East--bolts of cloth from Japan or New Zealand, to shirt blanks from Taiwan. These are our raw materials.

Our apparel industry is in a precarious state. We have some quite good designers, a few firms capable of competing in any market, and a vast array of tiny producers whose world stops at the surf line. The typical Honolulu apparel firm is a very small family or designer-owned firm whose prime objective is to win an order from Liberty House. There is absolutely nothing wrong with this goal--until you take into account the number of Hawaii producers sharing the same goal and compound this with increasing competition from imports and mainland U.S. suppliers. Gradually, it is simply too small.
The initial reaction to this, begun several years ago, was to attack the mainland U.S. market. Some have done this very successfully and have even spawned formidable mainland competitors. (I suggest you take a look at Ocean Pacific's product line.) There is still room for more mainland sales by Hawaii's producers, but even the mainland market for our tropical fashions is limited.

I am convinced that Hawaii's future as an apparel producer requires we attack warm-weather markets around the world. Some of our styles, some of our designs, will sell in cooler climes—but I see our main potential lying in areas such as the Mediterranean, the Caribbean, parts of Latin America, even Southeast Asia.

Price is an extreme problem. Production costs are very high in Hawaii. Transportation costs in general, and foreign import duties in particular, run up our prices to foreign consumers astronomically. Textiles and apparel are two of the most protected industries in the world. Protection is accomplished in many ways. For textiles, the most prevalent method is by the use of quotas or tariff-quotas applied under bilateral textile agreements. For apparel, the method of preference in most countries is simply to maintain a phenomenally high tariff wall. In Australia, for instance, a pair of men's cotton slacks will face an import duty equal to 125% of its value! Aloha shirts may have it better—only a 50% duty plus an extra $5.00 per shirt. Australia may be a little extreme, but it is indicative of what goes on worldwide. And the United States is not a shining exception.

There are ways around such barriers. Mainland producers may be able to compete on price. Hawaii's producers must rely on unique styling and high quality if they are to make direct export sales. If these are not enough, our designers must look at producing in other countries, either through a manufacturing subsidiary (unlikely, given the size of our firms) or through licensing production to foreign manufacturers. At least with licensing, you can earn royalties on license fees; your alternative may be to miss the market altogether.

The picture is bleak but far from hopeless. U.S. producers have a track record for making comebacks. In the early '70s, we were down for the count in European markets for towels and bed linens. We struck back with a vengeance. If you walk into Au Printemps in Paris today, the sales displays are filled with U.S. towels and bed linens. We did it with innovative styles, bright colors, new fabrics—and aggressive marketing.

We can do it again, but it will mean hard work and a desire to adapt to other cultures. We are fortunate that American styles are in demand in most of the world right now, but that does not mean that we need not adapt to foreign sizes, quality expectations, or color preferences.

Fortunately, help is available and not just through your friendly Department of Commerce. When I counsel one of our small firms, I usually recommend that they try to export through an export management company or a trading company. Most of our firms are too small to do the needed market research, much less the actual selling and shipping, and a good trading company can do this for you. The Export Trading Company Act of 1982 opens further possibilities. Under this act, textile or apparel firms could band together in joint export efforts without incurring the wrath of the anti-trust gods.
Other help is available. The Department of Commerce has export development offices in 48 U.S. communities and in 65 foreign cities. We are available for counseling, providing commercial intelligence, and furnishing an effective combination of marketing programs which can be tailored to the needs of each firm. We can assist you in locating potential representatives, help you participate in trade fairs, create tailored mailing lists of possible customers, run credit checks on foreign firms, and provide myriad other services. The U.S. apparel and textile industries have not used us enough.

In summation, the Hawaii market and the U.S. market are too small. We have to attack the world market.

William Foster, Sr., President
Malia International

If I were to title my talk, it would be "Why and Whither, the Hawaiian Garment Industry." I will discuss the local market, trace the mainland penetration, indicate what we have been doing, and give you a little forecast of the future. This industry of ours really began in the 1930s, the period I consider to be the golden age of the islands. It actually started with a very bright young man who apparently attempted to emulate the environment that we are in and the happy spirit that has always existed here. We had a lot of imports directly from Japan in the old days, including various types of exotic fabrics, and some of these were textiles made for little Japanese girls' kimonos. The fabric was called shiosi and it was always very bright, very gay because little girls were supposed to be very bright and very gay. Our enterprising young man took this fabric and he made it into a shirt. That, I think, was where the industry started in the true Hawaiian sense.

From the women's side, I can remember some really elegant and superb garments that were produced in the 1930s when we had these marvelous textiles coming in from the Orient such as the Obi silks and the printed silks from China. Women had a lot of dressmakers available to them so we developed a garment known as a holoku. A holoku is a very stunning garment, very long, with a long train. In fact, when you walk you have to reach down and carry it.

Tourism in those days was strictly by boat. The only people who travelled were very wealthy so there was a certain elegance that existed at that time. There were a couple of small manufacturers that got started in the 1930s and that comprised the industry when World War II started.

Following World War II, of course, Hawaii just caught on fire. People had been subliminally exposed to our culture by "Hawaii Calls" radio programs. People listened to these programs and really were intrigued by the marvelous music that came from the islands. The shows created an aura and a mystique about the islands that people wanted and that feeling was transferred to clothing to a certain extent. People came here and were impressed by the uniqueness of the typical Hawaiian clothing. On the mainland, luaus became extremely popular and people bought Hawaiian clothing. On the clothes just to go to luaus. In Honolulu, we had a proliferation of little shops opening to cater to that market. The industry couldn't miss. The
developing Japanese textile industry was very eager to cater to any kind of market. For years, Hawaii has been the biggest importer of printed textiles from Japan. We went to Japan and helped them get started with what the market wanted here. In addition to that, we had other interesting textiles from the Orient. Another major factor affecting the industry was the ethnic influences that exist here. We had garments like the cheong sam from China and kimonos from Japan and sarongs from the South Pacific and barongs from the Phillipines and so forth. Characteristics of these garments were combined into a lovely mixture of prints and styling that gave us a very unique look.

Hawaii became a state in 1959. Then the real growth took place because of special air fares, jet planes, and all the excitement about tourism, about statehood. The only thing that kept the Hawaiian garment industry from exploding was that there weren't enough people in the factories. And that was a very good thing. Everybody who could possibly get somebody to work was assured of having a good business because the demand so far exceeded the supply. For 20 years, business was excellent, both locally and on the mainland to a certain extent. However, it was a little too easy, and a lot of people got into it who probably should have been in another business.

By the 1970s we started to see some faltering of this engine. For example, forty percent of the tourists who come to the islands now are repeat visitors. They've already bought their muumuus and their Aloha shirts. Consequently, they are no longer creating the demand that used to be there. Also, on the mainland, I think Hawaii has become somewhat overpromoted. I think as far as the industry is concerned, in addition to the fact that the uniqueness is now tapering off, the product has, generally speaking, become understyled and overpriced for both markets. Therefore we will see, by the end of this decade, a very definite decline in the Hawaiian garment industry.

Our foreign trade will be roughly parallel to the mainland trade. Our experience in Australia, for example, is typical; it has been repeated in New Zealand, Canada, and Japan. We started selling directly to a firm called David Jones when they bought the business in 1961. Australian major retailers have always sought out products from around the world and are outstanding buyers. In any event, we started selling directly to David Jones in 1961 and moved on to other retailers like Myers Emporium and George's. For several years, this was fine. We were also developing markets in several other places. For example, we were doing quite well at Harrod's in London. The duty rates were relatively low and demand was high and we were still unique. Also, dresses were "in" and dresses have always been our primary interest. However, as costs started to increase and duty started to go up, we were running into problems. We decided that in order to deal with these problems, we would open a plant in Hong Kong.

We started servicing overseas markets from Hong Kong. Then, however, various countries around the world decided that Hong Kong had to be totally controlled, as well as Taiwan and all the emerging less developed countries. In Australia, for example, and this has been repeated elsewhere, the control of exports passed from the hands of the Hong Kong government to the Australian subcontractor and we were left high and dry. We did not have nor did we participate in the development of that quota.
This experience demonstrates the fact that you have to stay light-footed to survive in the export market.

In order to survive, we had to establish licensing arrangements. We have licenses in Australia, New Zealand, and Japan, and we had one in Canada, but it has been discontinued. Licensing, as far as I'm concerned, is the only real answer at the present time. I don't see any real hope for penetrating these other markets because they are so highly protected. Licensing, of course, is a form of exporting. For the U.S., it's better than nothing. In the process of licensing, we find a manufacturer in Australia and say, we'll ship you all of our patterns, and we'll arrange for the piece goods that are being printed in Japan or Taiwan to be shipped to you. The manufacturer produces the garments in Australia and consequently the prices are such that we can at least realize some sort of volume out of the arrangement. For us, it means that we get only the licensing fee. That is not a balance of trade situation that the Department of Commerce would like to see, but it's better than nothing. Where there are no quotas and where there are no high duties, we do very well. On Norfolk Island, for example, we do well because it's a duty-free island off Australia. Australians go there to buy clothing and because we are able to get it in there underneath all these restrictions, we do well. We do all right in places like Guam and Hong Kong and certain Caribbean areas and quite well, incidentally, in Singapore. Generally speaking, the export situation, given the restrictions and the value of the dollar and various other factors, is not something that is extremely lucrative at the present time.

Well, what is the condition of the garment industry in Hawaii today? I suggest that there is just one word and that is "vulnerable." We see a number of factors that are affecting the market. As the tourist industry and the tourist market here become more and more a function of cheap air fares, the visitors' expenditures reflect this. Probably the biggest selling garment right now is the kind of t-shirt that has a message on it. The demand for leisure, I think, has influenced the market. Knit shirts with alligators or pigs, or nothing, seem to be a lot more comfortable than Aloha shirts that you have to iron. Fortunately, we are starting to develop a little bit of a knit business here. There was a time when men and women really walked around with Aloha shirts and muumuu in the same print but that's about as rare as top hats in the summer right now and the returnees have already purchased theirs.

Finally, there has been quite an interesting penetration of our market by mainland manufacturers who copied us and are able to compete with us because of their economies of scale. For the export market then, both for the mainland and abroad, what I see are some really dramatic changes taking place. For those of us that are really concerned with it, our business is perhaps 85% exporting—or maybe more. In the period during the nine-month business, we had a resort business which started in September. We started shipping in September and that carried right through January. Then we had a spring business which started delivery in February and went right through May or June. So we had nine months of good business developing resort and leisure wear. Now that's no longer the case. There have been some big changes in the American retailing
scene, and one of them is that the resort concept is diminishing. For instance, Marshall Field used to buy resort wear and sell it to people in Chicago who wanted to go down to Florida or the Caribbean for the winter. That concept is getting very, very thin. Consequently, it's affecting us. Another thing that has happened is that markets treat us just like another resource. Therefore, we have to stay on top of the market.

The "Made in Hawaii" label is meaningless. At one time it could sell anything, but that is no longer the case. The buyers, the market, and the world are saying to us today, you better get with it or we're not going to buy it. We have to produce lines that are not just one season and not just one occasion but are broadly developed clothing that can be worn for several different seasons and several different occasions. For both the local and the export or mainland business, the competition heats up as the cost becomes a little more odious. For both markets, all the world is buying prints from Japan, whereas previously this was the private preserve of the Hawaiian garment industry. The cost of doing business in Hawaii has become very high; high rents, taxes, utilities, transportation costs, labor laws, etc., contribute to this cost. One important asset we have, however, is the great new labor force that is immigrating from the Orient with both work skills and desires. The first wave of immigrants came from Japan after World War II and the second wave from Hong Kong and China. The third wave, the Filipino people, are coming here now. Immigrants have to learn how to integrate culturally into the state, and they have language skills that have to be developed. During this period, garment factories are ideal places to make friends and develop skills. Local people do not want to go into the garment factories. If it had not been for the waves of immigrants, the Hawaiian garment industry would probably be 10% of what it is today.

In the near term, and for the local market, there is going to be a drift toward a factory-to-you concept. That concept is developing on the mainland, too. Here, for those who want to stay in the traditional Hawaiian Aloha shirt and muumuu concept, I think that is where that business is headed. The big manufacturers will continue to get bigger and there will be a survival problem for many small ones. However, there is a marvelous group of creative, bright, enthusiastic newcomers to the scene. This is always the case. They are underfinanced and inexperienced. For them, local marketing must be it. They can't afford to try to penetrate the mainland and they can't afford to go overseas. So they will have to be the ones that will start to inject some of this excitement into the local market. For the mature companies like Dave's and my own, both in the business for many years now, it will mean new strategies, a lot of gambling, and a test of what we've learned. Let me illustrate by reviewing the last five years at Malia.

Five years ago we had two lines--Resort and Spring. We used two or three fabrics, with perhaps 20 or 30 prints, in each line. We bought from one Japanese resource and we sold directly to accounts here, on the mainland, and elsewhere. Everything was manufactured here and the factory to nonfactory labor ratio was about 3 to 1. The administrators had to create and sell the garments. We had virtually one operation. Resort clothing for women was also flattering for men's wear. That was five years ago and we had a very good business.
Today, although our volume is up fairly substantially, we must produce five lines--Resort, Spring, Summer, Fall and Holiday. We must now buy textiles from three countries instead of one and we manufacture clothing in two other countries, in addition to the operation here. We have had a big increase in the assortment of both styles and fabrics. Let me give you an example of how complex the business has become. We make cotton skirts which we print in Hong Kong. The print is designed in Japan. We then manufacture the garment here. In order to enhance those sales, we are manufacturing knitted, full fashion cotton sweaters in Hong Kong that are color coordinated.

We have had to establish a distribution center in Los Angeles to coordinate all of this and, of course, try to contain the transportation cost; everything has been shipped by air from here up until now. We now have a factory worker to nonfactory worker ratio of about 1½ to 1. And we need eight operating divisions to stay up with all of this. This is a much more complicated operation than we had just a few years ago.

Our survival, from the day we opened the business, has been based upon the creative intelligence of my wife, who is Malia. She brought a great deal of experience to the business, having graduated from Stanford with a master's degree in journalism. It has been her image of where we should be that has been the inspiration for our current operation. For us and for Hawaii, our company is becoming more and more of a headquarters for styling, designing, marketing, communications, and computer operations. These are the true tools for manufacturing here.

Japan has become a very good market for us, but even there it is complicated when we have to coordinate piece goods being printed there, brought in here, or sent to New Zealand or Australia for reprinting. Again, the whole message of Hawaiian clothing is prints.

The wellspring of our business is textiles. We have two full-time stylists, one here and one in New York, and eight full-time textile artists who do nothing but create prints. If we create 100 patterns, we'll use 10 or 20. We create a surplus and then cull out the very best. On our styling side, aside from my wife, of course, we have 10 to 30 full-time designers, pattern makers, and graders to try to keep up with all this styling and print selection that has to be made available.

My conclusion is that we will continue to find a market for Hawaiian products. All the forecasts show that Hawaii will always be a tourist mecca. Therefore, that demand factor will always be with us. With the development of a lot of lovely new hotels, there may be a swing back to an age of tourism that is a little more sophisticated, a little more demanding of fashion. When that demand comes, I think it will help the morale of the whole industry. Our location, however, and our heritage and our relations with the Orient will continue to be a wellspring for the talented young and elsewhere. The more mature companies, like ourselves, will have to devote more resources to market research, design, and operational areas to comfort and value. And they need updated fashions. This will mean seeking out new resources for manufacturing and fabrication as well as new markets within existing markets. There will probably be a continued decline in absolute business for perhaps two or three years. The break out will take place when the industry finally understands that creative
design must be the driving force for the future and respond accordingly. At the moment, we still have what created those shiosi shirts and lovely holokus 50 years ago when it all began--a rare environment and a wonderful ambience. East has met West, nurtured by this soft spirit we call "aloha." It will spawn a new era of creativity in an industry carving out a practical place for itself in a market that is looking for color, leisure, and comfort with a unique touch but with a broad appeal. At this moment I feel better about the long term prospects of the Hawaiian fashion industry than I have for a long time, primarily because of its new awareness of itself. I hope that my optimism is justified. Hawaii is a special place, and our fashion industry is a truly unique reflection of it and makes a valuable contribution to its preservation.

Dave Rocklen, President
Surfline, Inc.

My presentation is based on material from a book called Megatrends by John Naisbitt. Naisbitt is involved in a think tank foundation, specializing during the last 25 years in observing the world we live in and telling big companies what it means. Naisbitt talks about ten megashifts. I will review these quickly and then I will try to relate them to what is happening in our industry. I want to begin by noting that Naisbitt says, "We've got to reconceptualize our businesses." That is the first thing I want you to remember. Let go of this death grip on the past and start dealing with the future.

The first trend is that we shift from an industrial society to an information-based society. You have to have the information, you have to know where to find the resources, and you have to be creative. Being creative involves producing new information. Carl Sagan has said that the function of an artist is to awaken man's mind. We must wake up and look at new information. What does that mean now in terms of our industry and exporting/importing? Thirteen percent of the U.S. work force is involved in manufacturing--thirteen percent or less. Sixty percent of the U.S. work force is involved in producing or processing information. That is not predicted; that is occurring right now.

Another trend is high technology advances. As high technology advances, it is accompanied by a human reaction which is resistance. You cannot force technology on an unwilling population. Those of you who are familiar with learning theory should be aware of the term "latency"; this is the gap in learning where it doesn't look like anything is happening, and then, all of a sudden, changes become obvious. With this high technology that accompanies the information explosion, we see the change from industrialization to an information-based society. We do not accept the change immediately. In terms of textiles and importing and exporting, some of the things that are going on here, today, which are being objected to are irreversible. They are coming. They are here. But it is a natural instinct for people not to beat a path to the better mouse trap yet. To summarize, that is one of the other trends--with the advance of technology comes a reactionary delay.
A third trend Naisbitt talks about is global structure versus isolationism and national self-sufficiency. We are no longer a nation that is self-sufficient. If we could disrobe everybody and check the clothing labels, we would find that most of us wear 30% foreign-made products. We have a global structure now. That is another one of the trends. Another example is that 95% of the baseball mitts or gloves that are used in this wonderful American pastime of ours are manufactured in Japan from American cowhide tanned in Brazil. The market finds ways to handle these logistics. If we have a narrow view that products should only be made in one place, it is very difficult to accept this. One of the things that I think America lacks today is what I would call this world view. Naisbitt says it's a trend, it's irreversible, it exists. From my own point of view as a businessman, it's there and we have got to find ways to react to it.

Another trend is that managers have to begin to take long-term views rather than looking at the next quarter. At the present time, they do not. Businesses tend to look at the next quarter. They should be thinking about three- and four- and five-year plans. That is what Naisbitt means when he says that corporate managers will stop looking at the next quarter and start doing something about long-term conditions, which involves research and development and believing and committing in some future. I suppose that the three of us on this panel could tell you what the yen is worth right now in Japan. Probably all of us could tell you what the Hong Kong dollar is worth right now, we could tell you something about the Taiwan dollar, and maybe some of us could tell you about the Indian rupee. And we are aware of the trends in the rates of exchange. We have to think about factors like that in terms of buying and selling and exporting and importing.

Another trend is that centralized structures are being broken down and decentralized. For example, Mr. Foster (another panel member) has a collection-clearing-coordination center in Los Angeles. He is styling and marketing and designing and entrepreneuring out of a Honolulu base and probably has showrooms in New York, Dallas, Chicago, and Los Angeles. We have decentralization and things where they have to be done. There are no barriers any more. We can't have a plant in Cucamonga because this is the place the railroad head goes. We don't need these clusters of ports and railroad heads and factories. The world is changing and you have seen it happen in your own communities. I have an example of decentralization in my business. I used to deal with one or two major suppliers— I bought my fabrics through them. Now I have to go to three, four, or five different places to find the information. Some of the young people are going to make it because they are not saddled with the old common law relationships. I have been doing business with a supplier for a long time and we have been doing business with Liberty House for a long time. What would ever happen if the $600,000 which we do with them in shirts were to go out the window? They would go out the window. We should force them into relationships which are decentralized, and some of us are doing it.

Another interesting concept is that "top-down" solutions are out of style. Naisbitt says that real trends come from the bottom and go up, whereas fads start at the top and go down. I will give you some specific examples. There are a lot of poor people around the world. For example, in London, you see a collection of rejected, poverty-stricken people. These
people are upset. They have been rejected. There is no food. They have no jobs. Some of them do not have countries and they collect in and around London. Do you want to know what fashions start there? Street fashions, tattered fashions, world's end fashions. This is the cry from the streets. This is the trend. It gets moderated and, as it goes up, it gets articulated. It gets refined and finally you find that it is not that bad. It just got dyed, washed, and bleached a little and some interesting styling was used. Now it is something good and the world will accept it. That is what is happening today in textile fashions. Trends start from the bottom up, and we see it not just in that tattered end-of-the-world look, but we see it in terms of the fact that people do not take the time to iron and press clothing. What is the hottest way to buy a rayon blouse? It is washed and wrinkled. That's fashion. They call it an antique or retro clothing. A store in Japan has a room full of retro clothing. It has been resold because of its old look. This is a trend that is starting from the bottom.

Another trend is reclaiming a sense of self-reliance after four decades of looking to institutions for help. It is the corollary of the entrepreneur explosion. Young people are going to come along and go right through all these obstacles that we are worrying about, either because they are so naive they don't want to worry about them or because they have such a view of the future that they won't take "no" for an answer. They are entrepreneurs. They are going to get it done; they are going to get up earlier and work harder, with more motivation and creativity. Creativity is part of entrepreneurship. For example, if I call Japan by this time of the day, I can purchase that fabric and find the price of the shirt being made in Taiwan. Then I'll be able to beat that guy out of New York with his Aloha shirt which retails for $25--an Aloha shirt which he sold to McInerny's for $8.75. What a nice markup for the store! An entrepreneur explosion? Definitely. And that's great because it always leaves room for creative people and that goes along with decentralization.

Another trend is that "hierarchies are 'out' and networking is 'in'." In the old system, I can't do anything until he tells me, and he won't tell me what to do until she tells me. Now you can see the development of networks, and they develop because information is the key. Information equalizes. When you have as much information as that guy over there, you are as powerful as that guy over there. People are going to deal with you.

Another trend is that citizens, workers, and consumers are demanding and getting a greater voice in government, in business, and in the marketplace. What this really means is that I can't produce this kind of item forever and, even for this price, sell it to that store forever and ever; that type of situation doesn't exist. Customers don't want it. They are rejecting it. They want variation. They hunger for creativity even though most of our store systems obstruct it.

Recently, we put a small store in McInerny's and called it "Under Construction." I said I would pay for everything; I would do anything. Just stand out of the way and let me do it and they did. Then the store manager came and said, "You're going to have to take that down. That structure goes above eye level. We can't see through the rest of the department." I said, "We've got an agreement. It stays here until we find out what happens." So what happens? The very place he thought this new shop was obstructing the view of, that department had a season better
than it had ever had because there was something interesting in front of it. One of my approaches to the market is to break through some of the ingrained systems, where the consumer doesn't have much to say and the store system has everything to say. The product and the services that are supposed to benefit the consumer are a function of the relationship the manufacturer wants to have with the store.

The next trend is a north-south shift. Here Naisbitt is talking about the shift resulting from people and businesses moving from the northern part of the U.S. to the southern part. Primarily he is talking about the move into the southwestern states, like Arizona, New Mexico, and California. This movement, this shift from north to south and from east to west, is real and here. It isn't going to stop and that's what is happening in textiles.

I just got back from a 3½ week trip during which I visited Japan, Taiwan, Okinawa, Hong Kong, Bangkok, and India. I want to tell you that the shift is from east to west, and in terms of textiles, you should look at that part of the world because that's where it's happening. In India, 670,000,000 people live in an area almost as big as the U.S. but longer and deeper and with a greater variety in climate, starting with the Himalayas and ending with a South Sea Island type of climate in the south. There is a work force there that can land a product here, duty paid, for $5.00. For the same product, my normal wholesale would be $15.00. Look at the gap.

The point is that there are resources in Asia to which we have to react. They have the right price, the right styling, the right merchandising, the right delivery, and you are going to buy it. Made in Japan used to mean poor quality. Now, it's Datsun. Japan is coming. It's here. We're learning from it. Those are realities. That shift has a big impact in terms of textiles. Europe is just looking for merchandising ideas and that's one of the things the U.S. has--merchandising ideas. That's one of the things that Hawaii has. It's got creativity--merchandising ideas. That's the message. We've got to stop being manufacturers. We've got to be merchandisers, entrepreneurs, world viewers, understanders, information processors and givers and that's the future of my business. That's the future of the industry as well.

The last thing that Naisbitt mentions is that there is no longer a chocolate or vanilla world. People want variety and difference and rightness.

In conclusion, I would like to review a few points. Reconceptualize our business, in your own business, in your classes, in your own lesson plans, in your own views of the textile world. How many Indians are there that are hand looming this shirt which I made here in Hawaii? I don't care. Now I'm not even going to make the shirt here. I'm going to make it in India. The Indian government is supporting the industry. They've got young Indian entrepreneurs to match up with young American entrepreneurs. I'll tell you a secret. I'm introducing a line called the Bombay Bus Company. It's going to have Gandian pants and Mandolay shirts. I'm going to put some graphics on the outside pocket and I'm going to merchandise India.

The last trend of reconceptualized businesses is not a prediction; it's a fact. It has already happened. We need a world view to be better at...
what we are doing. We need to commit our resources to long-term plans and that involves research and development. And commitment.

Reference

COSTUMES OF ASIA

Mary Ellen DesJarlais, Professor
University of Hawaii

To illustrate my comments this morning, I have photographed some of the finest textiles and costumes from the University of Hawaii's Asian Collection and scenes from my various Asian research field trips. These artifacts and slides are the bases for two University courses presently devoted to costume in 20 Asian countries. These courses are entitled Costumes of East Asia and Costumes of South and Southeast Asia. In the spring of 1984, the latter course will be divided into Costumes of South Asia, and a new course, Costumes of Southeast Asia. The countries of Bhutan, Burma, Laos and Sri Lanka will be added. This is now possible in view of recently accumulated textiles, costumes, and my field and documentary research during the past few years.

The following objectives will be common to all three courses:
1. Introduce the traditional costumes and textiles of Asia.
2. Establish the relationships between Asian costumes and textiles and the following Asian factors: (1) governance, (2) beliefs, (3) technological development, (4) aesthetics, and (5) economic conditions.
3. Link change in costume and textiles to historical events and prominent people.
4. Encourage open-mindedness and understanding of Asian cultures and lifestyles.
5. a. Provide design majors with Asian sources of inspiration for designing contemporary clothing.
   b. Provide non-design majors with an Asian research experience related to their own career interests.
6. Evaluate selected costumes and textiles as works of art.

During my presentation today I am submitting two concepts for your consideration and adoption:

Concept 1: The study of costume should be titled Costume Ethnology.
A review of our college bulletins indicates that at present we have limited our horizons to course titles using the word history. Examples are the History of Costume, the History of American Indian Costume, the History of European Costume, and the History of South American Costume. The implication that we therefore give to our students and colleagues is that there is only the historical development of costume as it relates to various dates and events.
I suggest to you that our area of research and instruction is far broader than a presentation of the historical aspect. The study of costume is as much a key to an understanding of man's total cultural heritage as is the study of Music Ethnology. Detailed research of a costume assists in evoking a visual image of a place, a time, and a people.

Let me explain how the study of costumes and textiles is related to governance, beliefs, technology, aesthetics and economics and therefore is a component of the Ethnology discipline.

In a society with democratic governance, there is individual choice of costume wherein we emphasize our personal tastes. In a society with totalitarian governance, this is not the case. For example, in Communist China during the Cultural Revolution, there were essentially two costumes as determined by their leaders, the green army jacket and trousers and the blue civilian jacket and trousers.

The ornamentation of a costume highlights fundamental differences between cultural beliefs. In China during the Ching Dynasty, costume motifs venerated Buddhism, Taoism and Confucianism. In Western culture, motifs were and continue to be chosen for personal enhancement.

Examination of a costume's fabric and construction reveals the technology of the period. Java's batik textiles, at the turn of the nineteenth century, exemplified extensive knowledge of natural dyes and an appreciation of fine Dutch cottons but little access to the mechanical Western sewing machine.

In sharp contrast is the Western garment of today. Components of the fiber, dye, thread, buttons, zipper, interfacing, and belt might all be synthetic. Computer designing and cutting, as well as machine and fusible processing, have revolutionized contemporary wear.

The aesthetics of a culture are also evident in the study of costume. The elegant Japanese kimono places the center of interest at the back of the garment where the obi is tied, whereas the Western costume may exclusively feature the front of the garment and usually the face of the wearer.

Economic conditions are also evident in the study of costume. Sumatra's strategic commercial position led to wealth reflected in the cloths of gold worn by fathers and sons during the first hair cutting rites. This precious metal was accumulated from Sumatra's spice trade with Western nations, which sought to enhance the taste of their poorly preserved foods.

In summation, the scientific facts that we gather from our costume and textile research become the discipline of Costume Ethnology which is much more inclusive than the History of Costume. In this ethnological approach to the study of costume, we seek to interpret and explain conditions and change in the governance, beliefs, technological development, aesthetics, and economic conditions of a people's cultural heritage.

It is also necessary to explain and define why I believe the word costume, as opposed to dress, is more appropriate in titling our discipline Costume Ethnology.

Among its several definitions, the term dress is used to
1) put clothes on
2) trim and adorn
3) describe a one piece dress
4) clean (fish or fowl) for cooking or sale
Consider the definitions of the word costume, which is French, Italian, and Latin in origin. It is a derivation of the word custom, and its meanings are broader than the term dress and more nearly target our instructional objectives:

1) a style of dress, including garments, accessories, and hair styles.
2) a style of dress characteristic of a particular country, period, or people.

Concept 2: Costume and textiles can be works of art.

It has been a long-standing concern of mine that historically costumes and textiles have not been so considered.

In examining this concept, I found myself in deep waters. Even the early Greeks struggled with the question, "What is Art?"

The individual who, more than anyone else, committed costumes and textiles to the role of a "useful art" rather than a "fine art" most probably was Alexander Gottlieb Baumgarten. During the 1700s he introduced a new philosophical discipline under the name "aesthetics" in order to explain the nature of art. Classified as fine arts were poetry, painting, sculpture, architecture, music, and dance, and their sole purpose was aesthetic. All useful arts were excluded from the category of fine arts (Venturi, 1953). The field of costume and textiles has been burdened with this image for nearly three hundred years. The time has come when we should examine this aesthetic philosophy even though it may invite sharp criticism from those who consider it solely their territory.

It is my position that the finest costumes and textiles possess the same qualities as other art forms, and, therefore, are to be considered art. I arrived at this conclusion after reviewing the characteristics that experts consider requisites for a work of art. As I delineate the following criteria of art, judge for yourself if they do not also apply to costumes and textiles.

Of the many definitions of art examined, ranging from the simplistic to the complex, I have selected Canaday's (1980, p. 263) statement, "Art is the creativity of man as distinguished from the creativity of the world of nature." Further, according to Canaday, there is "fulfillment, whether for the creator or observer...an extension of living...a form of communication with our time and all time...an inexhaustible enrichment of life."

Art is a statement, or at least a partial one, of the philosophy of the age and the ethnic culture that produced it. To the extent that it has meaning beyond anything concerned with the artist who created it or the period of its creation, it is a comment on its culture. Additionally, the artist must have a comprehensive knowledge of the technique he employs and must have mastered it.

Strunk and White (1972, p. 59) illuminate the subject of creativity with their discussion of each artist's style:

Who can confidently say what ignites a certain combination of words, causing them to explode in the mind? Who knows why certain notes in music are capable of stirring the listener deeply, though the same notes slightly rearranged are impotent?

Let me paraphrase. In the composition of a textile, who knows precisely why certain fibers, weaves, colors, and motifs are capable of
stirring the observer deeply, though the same components slightly rearranged are impotent?

Strunk and White (1972, pp. 60-61) also stated, "[All] creative writing [costume and textiles] is communication through revelation--it is the self escaping into the open.... The identity, as surely as would his fingerprints."

Canaday and others categorize styles as realistic, expressionistic, abstract, as having pattern, structure, or narrative. Surely these categories of styles also are expressed in costumes and textiles.

A final but important observation to stress is that if we wish to have our students create more of what is quality art, then we must teach it as one of our objectives. (This is not to demean the preparation of students for the commercial production of costumes and textiles, a worthwhile career and livelihood for most of our students.)

What background and competencies must instructors bring to the classroom if we are to have exceptional students concentrate on the respectability of costumes and textiles as art? I propose the following answers to this question:

1) Adopt as an instructional objective, the identification and production of costumes and textiles as forms of art.
2) Be firmly grounded in aesthetics, defined as the science of expression (Croce, 1966; Venturi, 1953).
3) Understand that art is a component of philosophy (Croce, 1966).
4) Appreciate the role of genius in art production.
5) Comprehend the difference between taste and style.
6) Recognize that superior craftsmanship is but one of the attributes of art.

The foregoing discussion is representative of Western thought. As you might anticipate, there are supporting philosophies of aesthetics for Asian costumes and textiles that operate in the same general way that our Western philosophy does but are dramatically different in content.

I am in agreement with Deutsch (1975) that, unless we recognize and have a sympathetic understanding of the Asian aesthetic philosophies of art within their intimate cultural setting, we are unlikely (with the exception of certain works with great universal characteristics) to appreciate either the Asian work of art or the artist.

We must cross the Asian cultural border for explanations of their art. For many of us, this is a new state, exotic and sometimes esoteric, greatly influenced by beliefs as is evident in ancient and present day Indian and Indo-Chinese art. In the instance of China, where there has been a system of powerful and dominating governance for centuries, the desires of the ruling hierarchy are the guidelines for the artist. A different approach prevails in Japan. Inspired by Zen Buddhism, the Japanese insist upon prolonged training and transmission of knowledge from generation to generation as the path that leads to mastery in the arts.

From Asian genius have arisen different aesthetic theories. Three of these, Indian, Chinese and Japanese, are summarized in the following discussion. Numerous photographic slides of the University's finest artifacts and those taken by me during Asian field research illustrate the application of these aesthetic theories in costume and textiles.
INDIA

Originating in India and spreading through Indo-China, the fundamentals of Indian aesthetics are expressed in the rasa theory. Briefly, it is the process of aesthetic perception. Drawing from psychology, the theory explains that all individuals share eight emotional states. These eight emotional states, innate and universal, give rise to eight standard types of aesthetic expression:

1) the erotic
2) the comic
3) the pathetic or compassionate
4) the furious
5) the heroic or valorous
6) the terrible
7) the odious
8) the marvelous

Some early writers included a ninth expression, the peaceful.

When works of Indian and Indo-Chinese art employ these basis expressions known to both the artist and the spectator, both deeply share the art work's content. One aspect of the theory is also in agreement with Plato: the finest art will most delight an individual who is well educated and is moral. It, therefore, makes extraordinary demands upon the spectator. The foregoing discussion is a condensation by Coomaraswamy (1965), de Bary (1958), and Deutsch (1975).

Figures 1 and 2 illustrate elements of the rasa theory.

CHINA

There is a permeating, major tradition for the artist in this Eastern Asian country. It is an intuitive identification with nature.

As early as the fifth century, Hsieh Ho formulated six famous canons of painting. The first and signally important is as follows:

Ch'i-yun sheng tung...clearly demands that the artist identify himself with a spiritual vitality (Ch'i), a movement of life (sheng-tung) that is pervasive in nature. Spirit is universal: every object in nature embodies it and is enlivened by it. And this power of vitality, this subtle natural-spiritual rhythm, must resound in the painting. The painting must be alive with the very life of nature (Deutsch, 1975, pp. 45-47).

The concept of ch'i also embodies the role of man. Siren (1956, p. 116) highlighted man and man-made objects in relation to nature with this description of a Chinese painting.

There is a mountain range rising through light mist in the background, and at its foot a village which is almost hidden. The calm river which is winding down to the lower edge is spanned by a bamboo bridge, and on the spit of low ground that juts out into the river two bare willows sway their plumming branches like quivering tendrils...there is a breath of the morning wind touching the tops of the willows. The mist is slowly dissolving--otherwise no movement, no sound. Spring is still hesitating.

1During the presentation 71 slides were shown.
Figure 1. Geringsing with puppet-like figures

Ananda Coomaraswamy, authority on the Indian rasa aesthetic theory, described the transfer of Indian beliefs, epics, and architecture through trade with Indonesia. This double ikat, from Tenganan, Bali, is similar to patola, the double tie-dye of Gujarat. It is a sacred textile and was worn as a shoulder or upper body wrap. A group of three human figures can be seen under each arc of the star. These are similar to those found in architectural reliefs and the puppet theater in Indonesia.

Figure 2. Turbaned male figure

Unfortunately essential repair work impaired the somewhat indistinctive features of this male figure resting in the typical Asian posture. Study reveals significant details: turban headdress, star shaped necklace, cocked elbow with hand resting upon the hip, an arm raised in offering, an ornamental belt, and a patterned kain, lower body covering. Students of textiles will observe that hand spun yarns have been expertly, selectively wrapped, tie-dyed and woven. These patterns and methods have been orally passed from generation to generation.
Man's relationship to nature was also described by Deutsch (1975, p. 47). "The little human figure in the lower right hand corner...is just another element in the composition."

It is evident that for the Chinese artist, neither man nor the forces of nature are superior to one another; they are in balance.

Binyon (1935, p. x) commented on man's relation to nature as follows:

...man's true place in the vastness of the universe, the intuition of a continuity of life through all creation, the sympathy with every form of life outside humanity,...Hence the discovery of landscape as an independent art...hence the choice of birds and flowers, with us (humans) placed in a minor category....

Here it is necessary to draw parallel observations between painting and costumes and textiles. The latter share the theory of ch'i-yun sheng tung. The textile artist uses tapestry or brocade weaves or the addition of embroidery stitches to portray man, birds, flowers, trees, water, and mountains all existing harmoniously together.

Similar to the Chinese system of ranking scholastic achievement through formal examination and awarding of the appropriate mandarin square to be exhibited on the chest and back of the garment is the status ranking of Chinese landscape painters. Dating from the tenth century is a four-level scale.

According to Ching Hao, as interpreted by Deutsch (1975, p. 39), there were four ranks of painters: "(4) ch'iao, the 'skillful' (and lowest) who imitates nature but who lacks ch'i-yun sheng tung, the rhythmic vitality of the movement of life; "(3) ch'i, the 'clever'," whose work reveals vast outlines, but his paintings lack reason and do not truly represent the objects; "(2) miao, the mysterious, has truth of the motif (and) understands the nature of everything in heaven and earth." These two accomplishments "flow from his brush but his effort is far more strenuous than that of the (highest) artist ranked "(1) shen, 'the divine' who spontaneously follows the transformations of Nature with ch'i and exactitude of motif.

The use of natural objects as symbols in Chinese textile art is evident. The embroiderer has been observed with a flower at her side as she needle a similar flower into the fabric. While the outcome might be assumed to be achieved through the exact copying of nature, close scrutiny reveals her flower is without blemish; it has become nature idealized. Rarely does the Chinese painter, weaver, or embroiderer present less than a perfect symbol for our enjoyment.

The Chinese made additional changes in natural forms. As with other cultural families, they modified the natural form into the conventionalized symbol. An abstracting of shape occurred: the most nearly geometrical outline was symmetrically repeated. For example, a single lotus petal was reduced to its fundamental outline which was suggestive of the lotus' natural shape; this representation was repeated symmetrically for the entire unit of the blossom.

The painter, the weaver, and the costumer use these symbols to present their concepts. When the art work is produced and viewed by members of the same culture, there is a commonality of understanding; however, for those lacking familiarity with Chinese and other Asian tradition, there will be only elementary appreciation.
There is also the introduction of the mythical animal or bird motifs in Chinese art work. Familiar are the dragon and phoenix; less well known are the unicorn and the three-legged raven. Resemblances to lizard, peacock, horse, and raven are partial and usually are composites of several animals or birds. Associated with these mythical creatures are superlative human attributes such as godlike benevolence, supreme beauty, illustrious offspring, and light of day.

There are literally dozens of these near-natural symbols within the Chinese traditions. For the Westerner, there must be an introduction, a comprehension of the Chinese symbols before there is an appreciation of their art work. The dragon is an example of differences in Western and Eastern perceptions: St. George of the Knights of the Garter fame slew the evil dragon for the Westerner; for the Chinese, the dragon symbolized the Emperor, most beneficient of all humans.

Each Chinese symbol carries its meaning, generally auspicious, and when used is intended to bring good luck, good wishes, longevity, wealth, and many boy babies. In contrast, the Westerner incorporates symbols as an augmentation or enhancement of one's personality. These are quite contrary reasons for symbolic use. The Chinese symbols are traditional and often associated with beliefs; the Western symbols are secular.

Figures 3 and 4 illustrate the ch'i-yun sheng-tung theory. 2

JAPAN

Sometime between 1333 and 1406, No and other forms of art in Japan became shaped and then highly defined. From Zen Buddhism came the striking simplicity so subtly apparent in the Japanese rock garden. "Extreme stylization, precision and the gorgeous costuming of No (also) reveal the deep and lasting influence of esoteric Buddhism on Japanese art" (Tsunoda, de Bary & Keen, 1958, p. 290).

These new aesthetic standards described in the concept yugen did not represent any sharp break from earlier aesthetic standards; rather they were an intensification of those from the Heian Period (794-1191). These ideals pervaded poetry, drama, painting, gardens, the tea ceremony, and other artistic activities during medieval Japan.

Yugen defined means profound, remote, and mysterious; it refers to ideas which cannot be easily expressed in words.

Its closest equivalent in Western terms is probably "symbolism," not the obvious symbolism of a flag standing for a country...but what Poe called "a suggestive indefiniteness of a vague and therefore of a spiritual effect." To intimate things rather than state them plainly was what the Japanese of the medieval period...were trying to do (Tsunoda et al., 1964, p. 278).

2 During the presentation 38 slides were shown.
In this beautifully conceived and executed textile the bird in flight and the plum blossoms in all stages of vibrant growth express the artist's knowledge of the most important canon of Chinese aesthetics: the art piece must be alive with the very life of nature.

Resemblance to the peacock or to the pheasant is hazy in references. However, this motif was associated with divinity, supreme beauty, empress of the feathery kingdom, and longevity. It was also the emblem of purity. Mythical symbols give spiritual vitality to ch'i-yun sheng tung, signal canon of Chinese aesthetics.
Within the yugen theory, there is a perfection of form and design and a rigid control of space. Itoh and Futagawa (1969, p. 9), discussing shelter, stated

Depending upon how the inhabitants use and control space, the atmosphere may be attractive and refined or disorderly...they (the occupants) may...own all sorts of valuable art objects suitable for displays in the tokanoma (decorative alcove), but they must not display more than one piece at a time...they...(must) appreciate a simple arrangement of common flowers or they will violate the aesthetics of space....

Understanding Japanese aesthetics may be difficult unless one is aware of the conventions which have surrounded their arts from the beginning. Accomplishment requires perfect mastery--prolonged training in orthodox disciplines, imitation of one's teacher, and the exercise of all of man's faculties and the passage through nine stages of development before reaching the highest perfection symbolized by the Lotus--purity, the supreme truth of the art (Deutsch, 1975; Tsunoda et al., 1958).

Figures 5 and 6 illustrate the yugen theory.

References

\[3\] During the presentation 43 slides were shown.
This handsome garment was a gift to an Admiral accompanying Commodore Perry when Japan was opened to Western trade in 1854. The yugen aesthetic theory demands a rigid controlled space which is clearly evident in the artful placement of the pine, plum and bamboo motifs on this robe.

Perfect mastery of the couching techniques in clear evidence of prolonged training and knowledge of the yugen symbolism. The twisting trunk is emblematic of the strength and constancy of long life; the vibrant needles, forever newed, crown that long life with beauty.
M. Horn: About two years ago, concern was expressed that ACPTC was not providing the forward-looking leadership many departments were seeking. Budgetary problems on university campuses, along with cutbacks in programs, gave emphasis to the need for looking at the future of textiles and clothing. Toward this end, a Futures Seminar was held in Minneapolis, April 15-17, 1983. A grant from the Man-Made Fiber Producers Association helped to underwrite the cost of the conference, and members paid their own travel and expenses. There were 30 participants selected so as to have regional representation on a proportional basis (7 from Eastern Region, 7 from Western Region, 14 from Central Region, and two members of the Futures Committee).

The overall purpose of the conference was to develop some long-range goals and future directions in the field of textiles and clothing. Specifically, the objectives were to

1. become skillful in the use of future forecasting techniques and methodology,

2. investigate and discuss the philosophical foundation of the field as shaped by current and future trends, and

3. consider the potential outcomes of alternative courses of action regarding programs of work.

Seminar participants received a packet of material before the conference that included a reading list, excerpts from the writings of futurists, a list of discussion questions, and an outline of the program. A consultant from Anticipatory Sciences in Minneapolis began the conference with a futures perspective, presenting some of the major themes that have been suggested with respect to the world of the future and projecting some possible implications for the field of textiles and clothing.

It should be noted that this seminar dealt largely with process methodologies—ways of thinking about the future—rather than generating a tangible product. Future forecasting techniques used in the seminar included identifying strengths, weaknesses, opportunities, and threats and projecting their implications; techniques for determining priorities, establishing goals, and focusing on various alternatives; and ways in which we could shape the future. The underlying theme was that the future is not predetermined; the decisions we make today will shape the future.

The Proceedings from the seminar includes the program of work, the reading list distributed prior to the seminar, a summary of the consultant's
presentation, and all of the working papers used in the future-forecasting sessions. Participants decided as a group not to include the conclusions reached since the process was the primary focus, and the conclusions were not based on a thorough consideration of the issues or implications of the outcomes. We were very pleased with the process but had little confidence in the product.

During the final session, plans were discussed for the follow-up to this conference. Although the planning committees had hoped to make progress toward the last two objectives, outcomes were related primarily to objective #1; thus, we do not have a plan of action to present to you at this time.

E. Rhodes: I would like to emphasize that decisions about priorities were not reported in the Proceedings because it was felt that the total membership should be involved in establishing these priorities. Rather, it was considered important to share the process and use that process to bring the membership to the point of making some decisions about the issues.

Follow-up in the Eastern Region will include three subregional meetings as follows: Framingham State, October 28-29; University of Maryland, November 4-5; and Georgia College, October 28-29. The same agenda will be followed in all three meetings and members can select the meeting of their choice.

Outcomes from the subregional meetings will influence the next regional meeting program, which will be devoted entirely to futures in hopes of moving beyond process to discussion of specific strategies.

C. Lind: Western Region decided on a different format. Because of the distances between universities, we decided against subregional meetings. We thought we could get greater participation from our membership by mailing, early in the fall, instructions on how to think through the SWOT process by oneself. These responses will be summarized and used to guide planning for the regional meeting in 1984. We have already identified some speakers who have the potential to give us not only futures thinking but some assistance in looking into the ramifications of the problems identified by our group.

M. Littrell: The ACPT Futures network is alive and active across Central Region. Regional representatives who attended the Minnesota workshop in April currently are very busy planning mini-workshops at the state and subregional levels. The goal of these meetings is to get as many members and potential members as possible involved in charting the future of our profession.

An article was published in the April 1983 issue of the ACPTC Newsletter, summarizing the conference. The set of Proceedings is available from Elizabeth Rhodes at a cost of $5.50.
Plans for the various state workshops in Central Region submitted to date include one-day sessions in Iowa, Wisconsin, Oklahoma, Missouri, Kansas, and Nebraska. Penny Damlo, a consultant from Anticipatory Sciences, Inc., is conducting a two-day workshop for North Dakota and South Dakota in Fargo in late October, and a similar session is planned in Austin for Texas, Arkansas, and Louisiana ACPTC members on November 4 and 5, featuring Dr. Geoffrey Fletcher as the futuristic consultant. Plans for the remaining states are being finalized, and all ACPTC members in the Central Region are encouraged to participate in one of these Futures workshops. Input from the state workshops will be used in developing the program for next year's Regional Conference in Knoxville, Tennessee. Participation at the state meetings will permit an active role in the 1984 Conference.

The National Futures Committee for 1983-84 will be compiling and evaluating results of the state-subregional workshops and the 1984 Regional Conferences, as well as developing plans for a follow-up National Futures Seminar in 1985.

M. Joseph: One of the keys to the success of the process going as smoothly as it did in Minneapolis was the fact that articles and reading lists were distributed ahead of time. One of the things we felt would be important was for all of our members to share their ideas relative to the future. Therefore, we are planning a special issue of the Clothing and Textiles Research Journal for spring 1984 that will carry a series of futures articles that will serve as a stimulus for discussions in fall 1984.

M. Peterson: The readings list that was sent to seminar participants appears in the Proceedings. It is a list of 20 to 25 readings. These references need to be in the hands of those who will be involved in the futures activities this fall. We talked about condensing this list, but the important thing is that people read a diversified set of references.

J. Flynn: Two years ago at the Eastern Region meeting, we had several speakers who spoke on theoretical frameworks, opportunities and threats, and problems we wanted to work on. We want to get operating fast because our membership has been hearing about it for several years. However, one of the things I realized is that we are all at different schools with different problems and needs. If we go ahead with a list of concerns generated by just a few, we may not meet the needs of the general membership. Therefore, each of us should have the opportunity to work through the process. However, I also get the feeling of "let's do it tomorrow."

M. Horn: As a committee, we started with the idea that the seminar would allow us to generate long-range goals, and almost all of us are experiencing immediate problems that we need to deal with now, and we can't wait five years to get answers. There's a general feeling of frustration and impatience. However, focusing on immediate solutions to problems we have now tends to keep us from looking far enough down the road to project ideal goals for textiles and clothing as a whole.

One of the strengths of people who go into areas like textiles and clothing is being very pragmatic, but this practical orientation can also be a
weakness. We are so impatient about getting that product that we sometimes lose sight of long-term goals. We've got to be willing to take time to look at alternatives, to put the effort into the development of anticipatory skills. In the information society of the future, these critical thinking skills will be far more important than the acquisition of knowledge. Learning how to put facts together to make critical decisions is going to be the most important thing. For that to occur, it is important for everyone to become involved in the process rather that for a committee to come out with a plan of action. We don't utilize plans that come finished and polished by a committee anyway. We've got to develop those ideas ourselves and make them a part of our actions before any implementation can take place.

In soliciting articles for the Clothing and Textiles Research Journal, we would like to hear from people who have different ideas so that the controversy would force us to think about things in different ways. That is what we would like to generate in each group--some controversy on these issues--so we can see all sides and weigh the pros and cons. Any decision is going to be a compromise. One of the issues we face in this organization is who we are. We started out as an organization of college professors, but we have since expanded our membership. As we diversify, it becomes more difficult to meet the needs of all groups. Who we are determines the qualifications for membership, the name of the association, the kind of programs we offer, etc. This kind of philosophical question is basic to practical decisions such as membership qualifications and name; but we often make the practical decision without taking time to consider the basic issue.

There are no shortcuts to the development of critical thinking. We've got to be willing to invest the time to look further down the road than the next two or three years. A committee cannot do it for us.

Next steps:

1. Subregional meetings in the fall of 1983.

2. Special issue of the CTRJ in the spring of 1984. Members are asked to submit papers on futures issues to Editor M. Joseph by December 1983.

3. Regional meetings in 1984 based upon the futures theme, with study materials distributed ahead of time.


The U.S. textile and apparel industry, like many other manufacturing sectors, has felt threatened in recent years by lower cost imported products. While there seems to be a general perception on the part of many consumers that imported products in certain categories are superior to those manufactured domestically, no data are available to substantiate whether these views actually exist. Furthermore, virtually no data are available on which product characteristics, including quality, influence consumers to buy imported versus domestic apparel.

The purpose of this study was to determine U.S. consumers' perceptions of quality for imported versus domestically-produced apparel. In addition, it was designed to see if consumers' views on quality for the two types of apparel were related to (1) respondents' expressed purchasing patterns and (2) demographic characteristics of participants.

A total of 1,350 consumers in 32 states participated in the study through a telephone survey. Calling areas were chosen to include (1) a mix of metropolitan, small town, and rural areas; (2) areas with and without apparel/textile production; and (3) geographic representation of the U.S. Consumers were selected randomly, using standard research procedures, from telephone directories in each area. The consumers represented a cross-section of the population from lower, middle and upper socio-economic classes. Data were analyzed by descriptive statistics and chi-square tests of independence.

Results did not support the popular notion that consumers buy imported products to obtain better quality. In fact, a majority of the respondents viewed U.S. apparel as equal or better in quality to imported products. The relative frequency data indicated that 47.3% viewed domestic apparel as better in quality and 23.9% considered it equal to imported apparel. The adjusted frequency data indicated that 61.4% viewed U.S.-made items as superior and 31.0% thought they were equal in quality.

Perceptions of quality differences were significantly related to consumers' responses on 1) the extent to which they notice country of origin on apparel, 2) the value attached to the purchase of domestic apparel in contrast to imports, and 3) the frequency of buying foreign-made apparel (both for adults and for children).

When responses were cross-tabulated with demographic variables and tested for independence of those variables, there were significant relationships between perceptions of quality and the sex and the age of the respondents. Women were more apt than men to perceive that imported apparel is of poorer quality than domestic products. Respondents between the ages of 40 and 69 were more inclined than any other age group to say that imports were of lesser quality; respondents under age 29 were least apt to view imported apparel as inferior to domestic apparel. Demographic variables of occupation, income, and education were not significantly related to consumers' perceptions of quality for imported versus domestic clothing.
The results have significant implications for the domestic industry. As the apparel sector attempts to compete with imports, consumers' perceptions of greater quality in U.S. products can provide incentive for maintaining and/or improving the quality of products rather than reducing quality to become more competitive with imported products which are often lower priced.

United States-China Trade Relations: Implications for American Textiles and Apparel Industries

June W. Dyson, Louisiana Tech University
Charles Riggs, Texas Women's University

The purpose of the study was to determine the impact of renewed United States-China trade relations on the domestic sales of leading textiles and apparel industries as perceived by top executives (vice-president or higher in rank) in those firms. A secondary purpose was to identify serious problems facing the industries and to suggest programs needed for the benefit of the industries.

The sample consisted of 116 executives, located in 16 states, who responded to a 14-item questionnaire mailed with a postage-paid and addressed envelope. Participants were requested to indicate the perceived effect of renewed trade with China on present export-import trade, changes in sales, and predicted future trade, as well as perceived effects of the Multifiber Arrangement and the Chinese Bilateral Agreement.

Data were analyzed by means of chi-square distribution analyses and Pearson's product-moment techniques using category of the firm and location of the firm as the dependent variables. Based on responses of the executives in the study, the following conclusions were drawn: domestic sales have been adversely affected by renewed trade with China; imports from China will continue to increase; executives lack knowledge of provisions of the Multifiber Arrangement and the Chinese Bilateral Agreement; economic conditions in the U.S. pose serious problems; and better enforcement of present regulations is essential.

Utah Consumer Interest in Telecommunication Offering Systems

Tom C. Peterson
Utah State University

Telecommunication offering systems as a form of non-store retailing are predicted to grow at a rate two to three times faster than traditional retailers' sales. The impact on consumers as well as their interest in such systems warrants concern and serious investigation.

Several objectives were established at the outset of this research project. National studies have identified consumers' attitudes toward non-store retailing in general; our intent was to determine the level of
interest among Utah consumers in telecommunication offering systems. Additionally, we wanted to establish some baseline data on Utah residents' shopping behavior in an effort to profile which consumers would be most inclined to subscribe to a cable shopping service.

Based on studies about purchase decision-making, the female head of household was identified as the element of the population to survey. Stratified random sampling was implemented to allow the researchers to partition the principal sampling units into counties while maintaining their proportionate representation within the state.

The number of subjects drawn from each county serviced by Mountain Bell represented the same percentage of the total sample as that county's population was of the total Utah population. Sampling from published telephone directories was ultimately chosen as the method for selecting sampling units. A sample of 800 numbers was generated; 202 interviews were completed.

All interviews were conducted by telephone. Prior to questioning, the interviewer provided a verbal scenario with respect to teleshopping and its possible implementation. Respondents were then asked to respond to 38 closed-ended questions.

The responses were generally favorable to teleshopping. Utilizing the Kruskal-Wallis one-way analysis of variance, some differences were found to exist between subgroups within the sample. Individuals interested in teleshopping felt it was good, felt that shopping takes too much time, wanted to purchase the latest styles, wanted to find clothing that fits, had less need to see or touch merchandise before purchase, had confidence in familiar brands, and would prefer seeing a video image of merchandise rather than a printed one. A demographic profile of the sample was also generated.

The major conclusion drawn from the study is that a substantial portion of Utah residents are interested in the concept of teleshopping to a degree that should encourage retailers to begin more serious telemarketing efforts.

Responses to this survey indicate that consumers are receptive to new ways of purchasing goods, including apparel. Catalog sales of apparel are growing at a much faster rate than conventional retail clothing sales, and the reasons for this growth need to be clearly identified. Apparel's unique problems of fit and fashionability pose challenges that need innovative solutions. Our research shows a need for improved non-store marketing systems that will provide consumers with a more realistic picture of what they are ordering and less cumbersome methods of returns. Creative applications of current technology make futuristic possibilities actual realities. Purchasing decisions may be based on statistics rather than the traditional tactile and emotional considerations of the past. How will consumers be re-trained to shop this way? How will teleshopping affect the way consumers allocate their resources of time, money and energy and what might be the social impact on both those who teleshop and those who decide not to participate at all?
Development of a Clothing Competency Skill Program Designed for Deinstitutionalized Chronically Mentally Ill Patients

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Research has shown that one of the problems that deinstitutionalized mental patients have when re-entering the community is inappropriate dress. Because of the years of institutionalization, they often lack the clothing competency skills needed to select appropriate dress and are out of touch with current styles and fashion. This lack of competency in clothing selection may exacerbate the stigma and social ostracism that mental patients encounter. Grooming needs are included in the living skill training program provided to patients, but little attention is given to clothing.

The focus of this project was the development of a clothing competency skill program for deinstitutionalized chronically mentally ill patients. The objective of the clothing program was to re-educate and train the target population in clothing competency skills so they would be able to 1) explain why clothing is important in social interaction, 2) identify what the criteria of appropriate dress are, 3) describe how to select appropriate clothing, and 4) make appropriate personal clothing selections.

The program was field tested with a group of deinstitutionalized clients from the Buffalo Psychiatric Center who were enrolled in the Center's Basic Competency Skill Program. The group included fifteen adults, ten males and five females, ranging in age from 20-71 with an average length of institutionalization of six years. The fifteen clients displayed a variety of mental problems and a range of severity of symptoms.

Nine sequential classes were provided to accomplish the four objectives. Seven clothing concepts were taught and the final class involved a client fashion show that demonstrated practical implementation of the concepts.

Program effectiveness was evaluated by 1) a comparison of pre- and post-test performance, and 2) a questionnaire on client dress filled out by the institution staff and the researcher at the start of the program, at the fifth week, and again at the end of the program. The comparison of the pre- and post-test performance showed a measurable increase in the clients' ability to explain, identify, and describe the clothing concepts (objectives 1, 2, and 3). The staff-researcher questionnaires reflected a measurable improvement in personal clothing selections of both male and female participants (objective 4). Therefore, this study indicated that the training program was effective in meeting all four objectives.

This presentation provides information that would make it possible to replicate the program. In addition, it suggests questions and directions for further research in the clothing and textile field.
Recent analyses of the home sewing market indicate that this $3 billion industry is on the verge of a new acceleration in growth. Factors cited as stimulating this growth include consumers' needs for more affordable clothing, their concern for better quality apparel, and growing recognition of home sewing as a creative outlet. However, research on this market has suggested that several attributes of fabric stores are apt to be sources of dissatisfaction, and additional work is needed in this area to provide consumers with more positive shopping experiences.

Previous research has suggested that one of the attributes consumers consider to be both important and dissatisfying is sales personnel's product knowledge. Three methods have been used by different investigators to assess product knowledge: 1) written test items on a questionnaire, 2) oral items administered by a researcher posing as a consumer, and 3) projective items which ask for estimation of other clerks' knowledge. Although the possibility has been noted that these methods may elicit different data, there has been no previous attempt to compare results across methods.

This study was designed to compare results from the three methods of assessing fabric store personnel's product knowledge. Subjects were drawn from fabric outlets within the city limits of Sacramento, California. Previous literature and pilot studies were used to generate four test items. These items were administered in two phases. In the first phase, one of the researchers posed as a consumer and interviewed 54 sales personnel. In the second phase, 100 clerks completed a questionnaire which included the estimation and test items. A total of 40 clerks participated in both phases.

No significant correlations were found between the estimated knowledge items and corresponding written test items. Similarly, no significant correlations were found between the estimated knowledge items and corresponding consumer interview items. With respect to the written test items and the consumer interview items, correlations for two of the items were significant (p < .001) and correlations for the other two approached significance (p < .06). An analysis of total scores suggested that information provided to consumers is more likely, on the average, to be correct than that given on written tests, although the t test performed on the two sets of responses indicated that this difference was not significant. Furthermore, analyses of correct responses to individual items showed that the higher average score on the consumer interview was due to the highly significant difference on the first item. For the other items, there were more correct responses on the written test. A comparison of the mean percentages of questions answered correctly in the interview and on the questionnaire with mean percentages based on estimates of others' knowledge showed some similarity in order of difficulty, i.e., the question estimated to be the most difficult was the one most often answered incorrectly and the question estimated to be the easiest was the one most often answered correctly.

Conclusions of this study include the following:
1. In contrast to findings regarding the measurement of attitudes, estimation of other people's knowledge is apparently not an accurate indicator of one's own knowledge. Instead, aggregate estimation data would seem to be useful primarily as an indicator of relative difficulty of test questions.

2. The consumer interview and written test methods produce similar, but not completely interchangeable, results. Therefore, one should consider the objectives of the measurement process in selecting a method of measuring sales personnel's product knowledge.

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Cognitive Strategies to Describe Warm and Cool Appearances

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One important element in developing a product philosophy is the understanding of consumer judgments. The purpose of this research was to identify strategies used by respondents in organizing expectations of apparel products. Holbrook and Moore (1981) pointed out the gestalt-like nature of product features and the necessity of learning more about the subject's cognitive strategy for making judgments about the products. In previous research, evidence suggested that observers consistently responded to fashion-oriented apparel by referring to some mental image or guiding plan (DeLong, Deonier & Larntz, 1981).

According to Woods (1960), consumers establish patterns of behavior for product use based upon an organizing and integrating process. A group of observers who share common experiences may have similar cognitive structures for perceiving product attributes.

What attributes will be perceived is determined in large part by the interaction of an observer's functional needs with the environment (Rosch, 1978). Understanding observer response to products has been hindered by the lack of consideration of interactions of person with product and context (Belk, 1975). An identifiable context within which to study apparel is thermal comfort. The sensation of comfort is easily recognized by a person experiencing it even though satisfaction is a complex achievement involving physical, physiological, and psychological factors (Slater, 1977).

Keeping warm or cool in winter and summer environments was chosen as a contrasting situation common to all observers living in Minnesota. The goal was to learn whether or not observers operated on the basis of an identifiable strategy which anticipated appearance images of their keeping warm or cool and how consistent these were from one observer to another.

One hundred female subjects responded to an instrument consisting of two pairs of open-ended questions and a semantic rating of 41 word scales. A paired t-test was used to compare the differences in responses to warm and cool. Thirty-eight of the word pairs were significant at \( p \leq .01 \). Subjects polarized warm and cool in responding to informational word pairs. Warm was heavy, bulky, soft, and rough; cool was light, thin, crisp, and smooth. For some of the evaluative word pairs (i.e., attractive, like, pleasing), subjects did not polarize responses, suggesting both warm and cool appearances were considered favorably.
Analysis of open-ended responses gave evidence of the subjects' use of a common strategy in relating warm or cool to appearance in an undefined and defined situational context, e.g., a Minnesota winter or summer. Consistency in the responses was noted in the following ways: 1) propensity of subjects to use a limited number of categories to differentiate product attributes in patterns of opposites, and 2) subjects using well delineated but parallel response patterns for warm and cool, drawing upon experiences to give meaning to product attributes.

References

Dress as a Predictor of Interpersonal Attraction

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Consistent with Byrne's (1971) predictions regarding the antecedents of interpersonal attraction, research has indicated that certain aspects of appearance affect attraction toward strangers. For example, Stroebe, Insko, Thompson, and Layton (1971) generated results that indicate that attraction is higher toward physically attractive persons than toward those who are perceived as unattractive. Buckley and Roach (1981) found that similarity between the dress worn by a stimulus person and a subject stimulates attraction toward the stimulus person. The research reported in this abstract was conducted in order to delineate a more precise relationship between similarity in dress and attraction that has been provided by work done previously. The purpose of this research was to specify the mathematical relationship between similarity in dress and attraction. A positive linear function between similarity in dress and attraction was expected.

Two hundred undergraduate male and female subjects judged, on seven-point scales, ten stimulus persons who were strangers to them. Each stranger was dressed differently; however, the forms of dress were typical of those found on campus. Judgment regarding the strangers dealt with the similarity between their dress and the subjects' own usual dress and two measures of attraction: the extent to which subjects would 1) probably
like the strangers and 2) would enjoy working with them. For each slide, the items regarding liking and working with strangers were summed to yield a measure of attraction. The two-item response measures of attraction ranged from 2 (least attraction) to 14 (most attraction) and have been found to have a split-half reliability of .85 (Byrne and Nelson, 1965); in this study, the items yielded a correlation of .81 (p < .01).

The relationship between the measures of attraction and the measures of similarity in dress were correlated and then plotted; similarity in dress was found to be positively related to attraction (r = .97; p = .00001). A straightline function was fitted to the data by using the least-squares method of regression analysis to predict degree of attraction from similarity in dress. From these data, attraction can be predicted from similarity in dress with 93% confidence (r² = .93; p < .0001), and the trend of the regression line suggests a positive linear function whereby the most similar forms of dress are associated with the most attraction.

This research serves to expand current conclusions regarding interpersonal attraction by including similarity in dress as a variable that influences it. The research also makes it possible to predict attraction if level of similarity in dress is known. Results of this research might contribute to an understanding of behaviors in a variety of interpersonal relationships. For example, in work situations, dress codes may stimulate satisfaction of employees with one another. This research also contributes to an understanding of some possible failures in interpersonal relationships at early states. Success in interpersonal interactions in service and social situations may also be facilitated by knowledge of these research results. Those who must deal with the public, such as extension advisors and sales personnel, might utilize these research results when choosing appropriate apparel to wear.

References

An Empirical Method for Classifying Variation in Women's Body Proportions
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The current U.S. sizing standard for women's apparel is inadequate as a tool for sizing apparel for contemporary women. The inadequacy of the standard is attributed to the 1939-40 data base which is not considered to
be representative of contemporary women's body proportions. The standard
is also a product of the control body dimensions methodology used to
classify proportional variation into standard size categories.

Methodologies and current technologies applicable to classification of
body proportions were reviewed. The objective for this study was to
develop a method for empirically structuring a classification system for a
large sample which was demonstrably more efficient than the standard.

The data base for this study was the 1977 survey of 1330 U.S. Army
women with 60 measurements per subject. Subjects varied in body size,
regional distribution of birthplace, race, and age. After discriminate
analyses of race and age effects, the sample was limited to 1217 subjects
who were White or Black and 17-35 years of age.

The sample was classified into standard sizes using bust and hip girth
and height to select sizes. Subjects' body measurements were compared to
reference dimensions selected to represent overall body proportions for each
size. Results of these comparisons showed that the greatest discrepancies
between standard dimensions and those of subjects occurred with respect to
body lengths and upper body breadths. It was concluded that the
standard was inadequate as a tool for approximating overall body
proportions.

In the control body dimensions methodology used to structure the
standard, body thickness dimensions (girths, diameters, etc.) are derived
from bust and hip girths. Body length dimensions are derived from height.
Incrementing control body dimensions for three height intervals yields the
size range.

In the experimental method, principal components summarize variation
in body proportions of the sample. Principal Components 1 and 2, body
thickness and body length, define size categories within a Principal
Component Sizing System, PCSS. Size ranges are defined by incrementing
the body thickness component within five equally spaced increments of the
body length component. Reference body dimensions are calculated
independently for each PCSS size and are equal to the centroid for body
measurements of subjects within the body length by thickness interval
defining respective sizes. A majority (90%) of the sample was classified into
26 PCSS sizes. This is equivalent to the number of standard sizes required
to classify the sample.

The relative efficiency of each system was tested by classifying two
randomly select subsamples (N=200 each) into the best fitting standard and
PCSS sizes. Results were weighted to highlight dimensions representing
closeness of approximation for the whole body and then for the upper and
lower body separately. PCSS provided a much closer approximation to
subjects' proportions than did the standard (95% of the time when comparing
whole body and upper body results and 67% when comparing lower body
results). It was concluded that the experimental method did yield a more
efficient classification system for this sample than did the standard.

Efforts to update the standard have centered on obtaining a current
classification method as well. Further development of the experimental
data base. This study demonstrates the need for a more efficient
method is planned. Included will be application of the method to a civilian
to quantitative descriptions of size.

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The process of fashion diffusion describes clothing style change that follows an evolutionary development from introduction to acceptance to regression. Fashion innovation is the essence of the diffusion process and is represented by the theoretical diffusion curve described by Nystrom (1928), Rogers (1962), Greenwood and Murphy (1978), and Sproles (1979). This curve graphically represents consumer acceptance and rejection of fashion. This study develops a model to 1) classify women's dress styles, 2) quantify dress style and design component changes, 3) establish fashion diffusion curves for the period 1930-1979, and 4) analyze the dimensions and relationships among the three progressive stages of the fashion diffusion process. Yearly percentages graphically present occurrence patterns for seven dress styles and seven design components as potential fashion curves. The study isolates 35 potential curves and calculates five-year moving averages to establish them as fashion curves. The study measures five dimensions for each fashion curve as follows: 1) total length (years), 2) level of amplitude (percentage), 3) introduction stage length (years), 4) acceptance stage length (years), and 5) regression stage length (years). Pearson product-moment correlation coefficients were calculated for each pairing of the five dimensions. Each of the ten correlation coefficients was significant at \( \alpha = 0.05 \). The analysis of variance with repeated measures and the Scheffe multiple comparison test \( (p \leq 0.05) \) were used to determine whether significant differences existed in the length (years) of the three stages. The mean length of stage two was significantly larger than the means for stages one and three, which were indistinguishable. The study also provides quantitative data and statistical analyses to support concepts regarding the length of time, the rate of speed, the acceptance level, and the points of change from one stage to another in the fashion diffusion process.

References

A Content Analysis of Magazine Descriptions of Boys' Clothing, 1860-1910

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The purpose of this project was to see if trends in adult male dress in America at the end of the 19th century affected boys' clothing of the same period. For men, the 1880s had been a decade of transition from
leisure-class styles to the business suit as the dominant form of dress. At the turn of the century, a new, more conservatively masculine image had been adopted, a look popularized by artists such as Charles Dana Gibson and Joseph Layendecker (creator of the Arrow Shirt Man). This trend raised the question of how and when boys' costume changed in order to reflect these new images of masculinity.

Illustrated descriptions of boys' clothing were found in four American magazines (Godey's Ladies Book, Peterson's Magazine, Ladies' Home Journal and Vogue). Every fifth year was sampled, producing a total of 223 costumes. A content analysis instrument was developed which sorted verbal and nonverbal information according to a number of categories including age of wearer, type of lower garment, and garment descriptions. Contingency analysis was used to identify significant relationships between variables.

The 1890s were found to have been an important transition period for boys' fashions. During this decade, the percentage of boys' styles with skirts declined, with an increase in proportion of styles composed of tunics and short trousers. The decline in the number of skirts shown for boys reflects a lowering of the age of "breeching." Prior to 1890, boys wore skirts until at least the age of four and often as late as age six. During the 1890s, the age of this transition shifted down to between three and four.

There were also changes in descriptors used for boys' styles. Style names such as Norfolk or Tuxedo reflected greater influence from adult men's fashions, while "costume" styles such as Zouave jackets declined in popularity. Terms usually used for women's clothing (dress, frock, costume) were much more common before 1890 than after, particularly for little boys' clothing.

Most of the changes appear to have affected clothing for boys in the four- to six-year age group. There was no change, for example, in the age at which a boy donned his first pair of long pants.

As might have been expected, there was a slight time lag between the changes in men's clothing patterns and the transition which occurred in boys' dress. One reason for this might be that the changes affecting men in the 1880s revolved around correct dress for work and leisure activities. Since boys were not involved in the same activities, their dress was not affected at that time. The change in the masculine ideal in the 1890s was probably much more influential, since it more directly involved the socialization of young boys into the appropriate sex role.

The main significance of this research is in the questions it raises regarding the importance of clothing in the socialization of children into adult roles, not only during the period studied but at other times as well. It is apparently not sufficient to study only the clothing of one sex. For example, during the 1890s, little girls began to wear bloomers and knockers for play. What effect did this have on patterns of sex differentiation through dress? A follow-up project is currently underway to compare boys' and girls' clothing of this period.
Sex, Gender Identity, and Sex-Related Clothing Behavior

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Despite the increased flexibility in the norms specifying appropriate clothing for males and females in American society, sex differences in clothing are still apparent and serve as an overt expression of appropriate sex role behavior. The major underlying factor determining these differences seems to be biological sex: males wear masculine clothing because they are male and females wear feminine clothing because they are female.

In recent years, however, the psychological concept of gender identity has been related to many social behaviors where sex differences are typically found. Gender identity refers to self-attributions of personality traits characteristic of and appropriate for males (masculinity) and females (femininity). Based on the degree of both masculine and feminine traits individuals feel they possess, they are classified as feminine sex-typed (high in femininity and low in masculinity), masculine sex-typed (high in masculinity and low in femininity), androgynous (high in both masculinity and femininity), and undifferentiated (low in both masculinity and femininity). Androgynous individuals have been found to show greater flexibility in sex role behavior than sex typed individuals, who behave in more sex-consistent ways. Therefore, the purpose of this research was to determine the relationship between sex, gender identity, and sex-related clothing behavior. Due to the severity of the social sanctions against deviations from the social norm, it was predicted that the wearing of sex-specific clothing (appropriate for or worn by only males or only females) would be a function of sex. Because gender identity is related to other social behaviors where sex differences are found, it was also predicted that the wearing of masculine and feminine clothing (more appropriate for or worn more by one sex than the other) would be a function of gender identity. In addition, it was predicted that the wearing of neutral clothing (worn by both males and females) would not be related to either sex or gender identity.

Twenty males and 20 females completed the Bern Sex Role Inventory (Bem, 1974), which measures an individual's gender identity, and the Clothing Behavior Inventory, which taps the degree to which subjects wear male-specific, masculine, neutral, feminine, or female-specific clothing.

As predicted, sex-specific clothing was found to be a function of sex; both males and females engaged in sex-consistent behavior. The second hypothesis was primarily supported. Only the wearing of feminine clothing was found to be related to gender identity. Feminine sex-typed individuals were more likely to wear feminine clothing than individuals in the other gender identity classifications. Sex differences, however, were related to both feminine and masculine clothing behavior; males and females again behaved in sex-consistent ways. As expected, the wearing of neutral clothing was not related to either sex or gender identity.

Stereotypic sex-related clothing behavior thus appears to be more a function of sex than of the psychological concept of gender identity. Males and females appear to wear clothing which is consistent with expected sex role behavior. The results parallel those found in other clothing research.
where personality traits associated with a clothing-defined stereotype were also found to be unrelated to the actual clothing behavior.

Reference

Physical Appearance and First Impressions: More Is Less

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Research regarding the effects of adjective traits on impression formation (Hamilton and Fallot, 1974) was used as a model to direct research on the manner in which physical appearance cues affect impression formation. The objective of this part of the project was to examine what the impact of a target physical appearance cue is on impression formation and how this impression is altered when the target cue is presented in the context of other such cues.

One line of thinking proposes that the impact of any one physical appearance cue on impression formation decreases as the number of other cues available increases (Thornton, 1944). It is reasoned that as length of exposure to the stimulus person is increased, subjects are able to use cues other than the target cue in forming their impressions. Thus, the impact of the target cue will be diminished with increased exposure to the stimulus person. Others have approached the problem by categorizing the physical appearance cues. In research on trait-descriptive adjectives, cues have been partitioned into two types: those that are relevant for social situations and those that are relevant for task-related (or intellectual) situations (Hamilton and Fallot, 1974). It was found that those cues that were relevant for one type of situation did not have the same impact on first impressions in the other type of situation. The present research modeled research on trait-descriptive adjectives and examined the manner in which the impact of a target physical appearance cue changes as a function of the number and type of other identifiable physical appearance cues available.

In a procedure analogous to that used by Hamilton and Fallot (1974), subjects viewed and rated sixteen slides of stimulus persons, each of which varied in physical appearance. The sixteen slides were developed from a factorial combination of four specific physical appearance cues that were identified in terms of deviations from a standard. Three separate experiments were conducted. Some of the physical appearance cues used were glasses, long skirt, experimental hair style, blazer, designer jeans, and lab coat. These physical appearance cues were categorized into two types according to whether they were relevant for social situations or task-related situations. For example, a long (mid-calf) length skirt was found to influence first impressions in a social situation, such as a party, but not in a task-related situation, such as a job interview. A 2^5 factorial design was used with repeated measurements on each factor. In accord
with the basic theory, it was hypothesized that the impact of a single physical appearance cue will be affected by the presence or absence of other such cues.

An analysis of variance was conducted and the results of the statistical analysis supported the hypothesis. Of four significant two-way interactions, three of them were due to the fact that one of the cues had an impact only in the absence of a similar cue. The fourth interaction was due to the fact that one cue had an impact only in the presence of a dissimilar cue. The hypothesis was also supported by four significant three-way interactions. In each instance, the simple two-way interaction between similar cues was significant only in the presence of a dissimilar cue. Thus, the impact of any one cue was found to decrease in the presence of similar cues but was found to increase in the presence of dissimilar cues.

These results imply that a given cue will have a diminishing impact on first impressions when presented with similar cues but will have an increasing impact on first impressions when presented with dissimilar cues. Ways to simplify the procedure are suggested.

References


Clothing Values, Interpersonal Values, and Life Satisfaction in Two Generations of Central Appalachian Women

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The purposes of this study were to investigate the relationships among clothing values, interpersonal values, and life satisfaction and to ascertain whether differences existed between two age groups of women on these variables. Selected background factors were examined to determine if they contributed to these differences.

The researcher developed a clothing values measure for the study based on Lapitsky's (1961) Clothing Values instrument. The existing clothing values measures were considered to be too complicated to be used with the selected subjects. A pilot test of the clothing values instrument was conducted with 51 freshmen university women, and some adjustments were made in the wording of the original items. The items were organized in the same format as that of the Survey of Interpersonal Values and were combined in a questionnaire with the SIV and a life satisfaction scale. The clothing values investigated were aesthetic, altruism, conformity, economic, religious, and social. The interpersonal values were benevolence, conformity, independence, leadership, political, and support.

Subjects for the sample were chosen from a rural, mountainous, coal-mining county in southwestern Virginia. The younger group (N=93)
was composed of high school seniors from the county's three public high schools while the older group (N=118) was made up of women who were older than sixty years and were county residents.

The statistical treatment of the data was carried out separately for each age group in the study and for the total sample. Data were compiled and statistically analyzed using Pearson product-moment correlations to test the relationships among the factors. T-tests were used to test for differences in the scores on the clothing values, interpersonal values, and life satisfaction measures.

The study revealed that specific interpersonal values were related to clothing values for each group and for the total sample. Life satisfaction scores were not related to clothing values but were found to be related to certain interpersonal values for each group and for the total sample. Within the two groups there were some variations in the rank order patterns of clothing values and interpersonal values. There were some differences in clothing values, interpersonal values, and life satisfaction related to the age, status of health, and religiosity of the respondents.

An examination of different societal, occupational, or professional groups using the same instruments would contribute to knowledge of the value systems in these clusters. The findings of such research could also have implications for those people who work with each group in that they would better be able to understand what is considered to be important by that faction of society. Such understanding could aid in communication and acceptance of various subgroups.

Reference

Liturical Vestments and the Priest Role

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The textile artisans of St. Francis Convent, Hankinson, North Dakota, and the chasubles they have custom designed were the focus for research on liturgical vestments of the Catholic church. The St. Francis sisters, trained in Germany as textile artisans, have featured embroidery embellishment on their vestments. Many of the chasubles are now important examples of Midwest regional textile art. The need for a better understanding of the relationships among dress, roles, and social change prompted the research. The period for analysis, 1950-1980, encompassed Vatican II, a time of dramatic change in the church. Objectives for the overall research project were to

1. Develop an instrument to document garments varying in structural design and surface embellishments.
2. Document the chasubles produced in the St. Francis Vestment Department and establish relationships among design components.
3. Establish associations between changes in chasubles and a) the role of the priest; b) church liturgy and parish economics; c) the designers' constraints of time, knowledge, skills and materials; and d) patron-artist relationships.

The research for objective 3a will be discussed in this report. Theories of role character (Turner, 1962) and role clarity (Warren, 1949) provided the conceptual framework for hypotheses related to Objective 3a.

Hypothesis 1 (Role Clarity): When clarity of role definition decreases, diversity in vestment design increases.

Hypothesis 2 (Role Character): When the kingly role of dominance decreases, diversity in vestment design increases.

Both historical and ethnographic research methods were used in this study. Primary historical data came from the convent's business records of the 1,880 vestments, including parish, date, fabric, embellishment design number, color, production time, and cost. Photographs were available for the 93 distinct embellishment designs. Catholic church documents were consulted for official directives on role character and clarity for the priest. Participant observation with the sisters provided opportunities to become familiar with the sisters' interpretation of the priest role. Vestments were coded for percent of embellishment, number of motifs, design organization, embellishment technique, and motif content. Three time periods were compared for diversity in vestment design: the 1950s, a period of clarity in the priest role of kingly dominance; the 1960s, a period of lack of clarity in the priest role due to Vatican II; and the 1970s, a period of clarity in the priest role as shepherd. Data were analyzed using variances, standard deviations, and a measure of dispersion developed from the Pearson chi square.

With respect to role character, vestment designs were less diverse in the 1970s period of the priest as shepherd than in the 1950s period of the priest role of kingly dominance. Vestments exhibited less variety in design organization, embellishment technique, and motif content. Standard deviations for percent of surface embellishment were smaller. With respect to role clarity, vestments from the 1960s, a period with lack of clarity in definition of the priest role, exhibited greater diversity in percent of embellishment, number of motifs per garment, and design organization than did those from the two periods when there was greater clarity in role definition. Parts of both hypotheses failed to be rejected.

The findings have implications for further comparative studies of dress, roles, and social changes. Questions raised for future research include: Are dress norms with a narrow range of acceptable attire associated with clearly defined roles? Is increased dress diversity associated with decreased clarity in role definition? How is dress diversity associated with the character of roles?

References
Thermal Insulation Values of Outdoor Garments and Fabric Systems

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The thermal insulation provided by an outdoor garment is a functional characteristic that is important to consumers but one that is difficult for them to evaluate prior to use. Although some manufacturers of outdoor clothing materials and garments have attempted to quantify and advertise the thermal properties of their products, many product claims are based on inadequate test procedures or no test procedures at all. The purpose of this study was to measure and compare the insulation provided by different combinations of fabrics and filling materials used in outdoor garments. Specific objectives were 1) to measure the thermal resistance of outdoor fabric systems using a guarded hot plate, 2) to measure the thermal resistance of coats made of the same fabric systems on a heated manikin, 3) to determine the effect of fabric system type on the insulation provided by fabric combinations and coat ensembles, 4) to determine the effect of coat length on ensemble insulation, 5) to determine the relationship between thickness and insulation for fabric systems, 6) to determine the relationship between weight and insulation for fabric systems and coat ensembles, and 7) to determine the relationship between fabric insulation and coat ensemble insulation.

Representative fabrics and filling materials were made into fabric systems and coats using the same design and construction techniques. Six lining variations were used with a wool outer shell, three outer shell variations were used with a satin lining, and eleven filling materials were placed between nylon outer and inner fabrics. Filled coats were made in short and long versions. A guarded hot plate was used to measure the total insulation (clo) value of each fabric system according to ASTM method D-1518. A heated manikin, dressed in a standard ensemble, was used to measure the total insulation provided by the ensemble with each coat. Analysis of variance and Duncan's multiple range tests were used to test for significant differences in clo values between the different 1) lining variations, 2) shell variations, and 3) filling material variations. Regression analysis was used to test for significant linear relationships among several variables.

The type of lining, shell fabric, and filling materials used in the outdoor fabric systems and garments significantly affected their insulation values. More significant differences in insulation were found using the hot plate data for fabric systems than were found using the manikin data for coat ensembles. For example, adding a metallized film to Polarguard® fiberfill provided significantly more insulation than Polarguard® alone, as measured on the hot plate. However, when these fabric systems were tested in coat form, the clo values were not significantly different. These results were expected since the hot plate measurements reflected only the intrinsic quality of the insulation materials, whereas the manikin measurements were affected by additional factors such as the compression of fabric layers, the entrapment of air between garment layers and the body, and the relative amounts of body surface area covered by the coat and other garments. The long coats were significantly warmer than the short coats for each filling material, and the relationship of fabric insulation to
Garment insulation was stronger for the long coats than for the short ones. Therefore, differences in the thermal resistance of fabric systems become important when designing clothing for very cold conditions where most of the body surface is covered with a given fabric system. However, consumers should be aware that differences in fabric insulation may not be realized when fabrics are constructed into a garment and worn in combination with other garments of lower clo value on other parts of the body. Consequently, other characteristics such as ease and cost of maintenance, aesthetic appeal, and price should be considered as important as thermal insulation in selecting cold weather garments.

### The Effect of Garment Design and Fabric Type on the Thermal Insulation Provided by Clothing

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Although the thermal insulation values of a variety of garments have been measured, the textile factors which influence resistance to heat flow have not been systematically varied or controlled in these experiments. In addition, little is known about how design features per se affect clothing insulation. Therefore, the objectives of this study were 1) to measure the thermal insulation (clo) values of garments tested individually and as components of standard ensembles using an electrically-heated manikin, 2) to determine the effect of garment design and fabric type on the thermal insulation (clo) values of garments and ensembles, 3) to determine the relationships between clothing weight, body surface area covered, clothing area factor, and insulation (clo) value, and 4) to relate the findings to information presented in ASHRAE Standard 55-1981, "Thermal Environmental Conditions for Human Occupancy."

Five shirt designs, five skirt designs, four trouser designs, two suit jackets, one vest design, one overalls design, and one dress design were constructed using three fabrics of 6.1, 9.5, and 14.7 oz/yd² 100% cotton twill. Selected designs also were constructed with a 3.3 oz/yd² cotton/polyester broadcloth shirting fabric or a 9.0 oz/yd² wool blend suit fabric. Designs for a particular garment type (e.g., skirts) were exactly alike except for one variable feature (e.g., A-line vs. knife pleated). Fabric weight, fabric count, air permeability, stiffness, thickness, and insulation were measured according to ASTM standard test methods. The clothing area factor ($f_{cl}$) for each garment and ensemble was measured by taking six photographs of the manikin from different angles and measuring the surface areas with a planimeter. The $f_{cl}$ was calculated as the surface area of the clothed manikin divided by the surface area of the nude manikin. The manikin's surface was divided into small units--most of which measured 3 x 3 cm--and marked with thin white tape. The location and surface area of each unit not covered by clothing was determined from the photographs, and the total body surface area covered was calculated.

Analysis of variance and Duncan's multiple range tests indicated that the three experimental fabrics of 100% cotton twill were significantly
different from each other for all of the textile characteristics except thermal insulation. Consequently, the large differences in fabric weight did not cause corresponding differences in fabric insulation. The design variations constructed of these three fabrics had similar clo values; however, differences in fabric insulation for the broadcloth shirting and wool suiting fabrics caused differences in clothing insulation. It appears that fabric insulation affects clothing insulation, but not in the same degree for all designs. The design variations which altered the amount of body surface area covered and the looseness or tightness of fit produced the major changes in clothing insulation. The clo value differences between design variations were slightly larger when they were tested in garment form as compared to ensemble form. Regression analysis indicated that the amount of body surface area covered by a garment was a good predictor of insulation; however, the relationship was not strong for ensembles. Weight alone was not a good predictor of clothing insulation. The clothing area factor was not significantly related to any of the other variables. The ASHRAE formula for estimating the clo values for an ensemble from the sum of the garment clo values was a relatively good predictor of ensemble insulation. However, the ASHRAE list of garment clo values needs to be revised to include more design and fabric variations.

Clothing Expenditures of Wife in Relation to Wife's and Husband's Employment

Mary Francis Drake, University of Tennessee
Marilyn Ruffin, U.S. Department of Agriculture
Leona Kocher, Northern Illinois University

This research was concerned with clothing expenditures of married women. The objective was to investigate wives' employment and occupation to explain changing patterns of women's clothing expenditure. Many wives have added the role of provider to their traditional role of wife. When a person takes a new role, with responsibilities that are not redundant to roles currently occupied, a new set of consumption problems may be encountered. The individual's consumer behavior may change to reflect the additional role. Thus, role theory served as the conceptual framework for this research.

Traditionally, researchers in the area of clothing have found that social status as determined by the husband's occupation is a major determinant of the wife's clothing expenditures. With the working wife now the rule rather than the exception, information about her occupation may be useful in explaining her clothing expenditures. The inclusion of the wife's occupational classification may provide more insights than the same information about the husband alone.

The research reported here is part of a larger ongoing investigation of clothing expenditure and consumer lifestyle. Data were obtained in a nationwide survey of 20,000 U.S. households by the U.S. Department of Labor, Bureau of Labor Statistics, in 1972-73 (the latest available). The sample for the research reported here was composed of 7,848 wives with husbands employed.
To examine the effect of husband's and wife's occupation on the wife's clothing consumption, multiple regression analysis was carried out. The dependent variable was annual expenditure for wife's clothing. In addition to variables relating to occupational status, six other independent variables (income, income adequacy, region, urbanization, presence of children, and age of wife were used as control variables. Six models were developed. Each model utilized a different set of employment or occupation variables, which ranged from very simple (wife employed/wife not employed) to more complex classifications incorporating the occupation of both husband and wife.

Three employment or occupational classification factors were found to be determinants of the wife's clothing expenditure: employed versus not employed, professional versus other employment, and white collar versus blue collar. Regression coefficients indicated that, after income and other factors were controlled, employed wives spent significantly more on clothing than did fulltime homemakers; wives employed in professional occupations spent significantly more on clothing than either wives employed in other occupations or as homemakers; and white collar workers spent significantly more on clothing than blue collar workers, who did not differ from fulltime homemakers in their clothing expenditures. Results obtained when both husband's and wife's professional employment were included in one model indicated that the wife's professional employment was a more important determinant of her clothing expenditure than was the husband's professional employment. The additional expenditure of approximately $90 was associated with the wife's professional employment, whether or not her husband was also a professional. In contrast, when the husband was a professional, the amount spent by the wife varied with her occupational status (professional, other employment, not employed).

As more women add the provider role to their traditional homemaking role, their consumption patterns can be expected to reflect this role accumulation. Continuing to use 1) only the husband's occupational information or 2) the traditional categorization of wife's employment as "employed" or "not employed" will no longer adequately explain the wife's consumer behavior.

Home Weaving, Professional Weaving, and Textile Mills in Southeast Iowa, 1833-1870

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Handweaving has been romanticized in histories of Iowa as well as of other states. One objective of this research was to evaluate historical notions about handweaving in terms of their accuracy for Iowa. This was done by identifying extant evidence of home weavers, professional weavers, and carding and textile mills in southeast Iowa from 1833 through 1870. A second objective was to examine the effect that commercially produced textiles and related services provided by local craftspeople and mills had on the home manufacture of textiles.
Woven textiles and weaving tools that could be specifically documented as produced or used in Iowa were photographed in twenty Iowa museums, three out-of-state collections, and twelve private collections. In addition to documenting the physical objects associated with weaving, the federal and state censuses for each county were examined for the years 1850 through 1870. Data from the censuses provided information for each county on the following: 1) the quantity of domestic manufacture; 2) the amount of flax grown and wool sheared; 3) the number of wool carders; 4) the number of professional weavers and demographic data about each, including the length of their careers as weavers in Iowa, and 5) the number of carding and woolen mills in operation in Iowa in 1860 and 1870, as well as information on the end products of these mills. Newspapers and books of the period, U.S. patent descriptions, one diary and letters written by hand weavers, journal articles and unpublished essays by people who remembered weavers or weaving done within their family, and seven interviews with descendants of weavers and mill owners supplemented the census data.

The research produced evidence that home weaving was done in southeast Iowa from 1839 through 1870, thus dispelling the popular notions of log cabin home manufacture on an economically bleak frontier. Furthermore, it suggested that weaving was done only out of necessity. Four additional reasons for weaving in Iowa, apart from necessity, were proposed as hypotheses to be substantiated by further research.

Another popular notion dispelled by this study was that hand weavers did all the necessary steps from producing raw material to weaving cloth within the home. Evidence indicates that services such as carding, spinning, and dyeing were available through local mills as early as 1840. Hand looms also were commercially available. The U.S. patent records show that patents for looms were issued to individuals or partnerships in Iowa from 1850 through 1868.

The commonly held notion that mill woven products completely replaced handwoven products around the time of the Civil War was not supported. There is evidence that at least 31 professional weavers were working in Iowa in 1870. No evidence was found to support the notion that professional weavers were itinerant in the sense of transporting their looms from house to house to obtain business. Because the majority of weavers used their skill as a source of livelihood in southeast Iowa for fewer than 10 years, itinerant is more accurately used in the sense that professional weavers needed to be mobile to find work.

The results of this research serve as an historical reference of hand and mechanized textile production and the use of textiles by settlers on a frontier in the mid-19th century. This study also contributes to the on-going documentation of professional weavers as an occupational group in the U.S. and to the understanding of frontier mills as a prevalent type of industry in the 19th century. The data gathered by this research helps to dispel some popularly held notions about handweaving, which we hope will be evaluated further by historical researchers in other states.
Buyer and Vendor Perceptions of the Importance and Use of Support Services of the Dallas Apparel Mart

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Regional apparel marts have become an integral part of the channel of distribution within the apparel industry and will continue to increase in importance. Support services offered to buyers and vendors are major attractions of marts.

The purpose of this study was to investigate the concept of the regional apparel mart as a service industry and was fulfilled by asking buyers and vendors to rank the importance to them of the Dallas Apparel Mart (DAM) and its functions. Demographic characteristics of these mart clients were also determined.

Questionnaires were mailed to a random sample of 5000 buyers registered with the DAM, and 611 useable questionnaires were returned. Vendor questionnaires were distributed to the 1200 permanent DAM showrooms, and 132 useable questionnaires were obtained. Data were subjected to frequency tabulations, Friedman's and Kruskal-Wallis' analysis of variance by ranks, and means calculations.

A majority of vendors used the DAM exclusively, represented one to three types of lines, had used DAM showrooms 1-15 years, had showroom sales from $100,001-5,000,000, lived in the Dallas metroplex, had been in sales 1-20 years, were male, and were 31-50 years old. The majority of buyers used the DAM exclusively, represented one store which had 10 or fewer employees and annual sales of $500,00 or less and which had been in business 1-30 years, had buying experience of 1-23 years, were female, were 31-60 years old, bought one to seven types of lines, and traveled over 100 miles to market.

Buyer and vendor variable rankings indicated that location, lines available, and buyer-vendor contact significantly influenced their use of the DAM. Spring and Fall markets were significantly more important than other markets; travel, lodging, food, and transportation-related services had high rankings; lines offered and acquaintance with the sales representative were the most important reasons for buyers visiting a showroom; and all preferred appointments to review lines. Experience, age, sex, showroom usage, and location significantly affected buyer rankings. Comparison of buyer and vendor responses revealed significant differences with respect to 1) reasons for using the DAM, 2) importance of market weeks, 3) rankings of services, and 4) reasons to visit a showroom.

In conclusion, support services, contract personnel, and interactions of buyers and vendors influenced the importance and use of the DAM and its functions to these clients. Recommendations for future studies include research on other DAM services and client satisfaction with service offerings, as well as comparative studies of service offerings by other regional marts.
The current back-to-basics movement is responsible for the utilization of writing as a learning tool in the textiles and clothing curriculum. Various forms of writing such as research papers, reports, and lecture-discussion summaries are used in a freshman level course, Clothing and Human Behavior. Position papers and abstracts are used in upper level courses. In order to encourage and enable students to interpret research and to synthesize information through writing, adequate preparation and instruction are required.

Instructions for each form of assigned writing have been formulated, but those for the research paper serve as the best illustration. Instructions for writing a research paper include three parts: selection of a topic and conference with the instructor, selection of reference materials, and critique of the final draft. Deadlines for completing each part and the format to be used are included as part of the instructions given to students during the first class meeting.

Selection of a topic for the paper is covered during portions of several class periods. Students are encouraged to explore, think, and formulate questions concerning possible topics and to choose a topic which will reflect the relationship of clothing to their major, to their future career, or to a personal interest. Examples of research areas and topics are provided to stimulate thinking and discussion.

At the end of two weeks, students are required to submit a topic for the research paper along with a paragraph indicating the direction of the paper. Conferences, fifteen to twenty minutes long, are then scheduled with each student to discuss the paper. Limitation of the topic is frequently recommended, and students who need help with language usage are urged to contact the University Learning Center for assistance.

The second part of the research paper instructions, selection of reference material, is addressed during the third through the sixth week of the semester. Sources of information are recommended to the student during the conference, and an attempt is made to determine the level of experience in using indexes, journals, theses, and dissertations. A 35mm slide series titled "How to Read Research" is used to help students become familiar with these sources. A list of sources is requested from each student in order to assess the quality of references being used.

The submission of the final draft, the third part of the instructions, is scheduled several weeks before the end of the semester. Each final draft is critiqued to improve the paper content. Comments in the critique often request the addition of the student's synthesis and conclusions drawn from the research.

Specifications for the format of the paper are used throughout the writing process. Students are instructed to write the paper for a specific audience, the members of the Clothing and Human Behavior class; with prescribed language usage, Standard American English; and with the
specific documentation form that is used by the Home Economics Research Journal. The paper is submitted for final evaluation two weeks before the end of the semester. Papers are returned so that the grade and comments can be noted.

A subjective evaluation of the papers finds them to be of higher quality than those papers written in previous classes. The research paper instructions, as evaluated by students, do provide assistance while writing the paper; the conference and critique of the final draft are indicated as being most helpful.

TAPPS: The Internship Model for Corporate Training

Shirley Ezell
University of Houston

There is little disagreement among textiles and clothing educators about one of the broad objectives of teaching a university internship in a free enterprise society--to help students function successfully as managers and constructively as executives. However, what people have been taught and how they behave inside an organization filled with discrimination, personality conflicts, accelerated profit motives, and intense competition are not necessarily consonant. For example, few who have been through a university degree program in textiles and clothing or merchandising have escaped exposure to the concepts of merchandising, product evaluation, marketing, profit and return on investment, communication skills, basic management, and the organizational environment somewhere in the curriculum. Yet the attitudes and actions of many university students with regard to good management strategies suggest that what they have been taught is not affecting their behavior.

In the early 1970s, faculty in the University of Houston Department of Home Economics spent two years of intensive observation and analysis of sixty textiles and clothing students inside internship organizations and arrived at the broad conclusion: Significant gains in management effectiveness are maintained when the content of the university seminar and internship has an affective basis. That is, if university educators are able to discover the feelings, fears, and expectations that move intern students emotionally and match them with organizational realities and cognitive content, they can more effectively engage students from a variety of academic achievement levels.

The TAPPS model was established over the next five years as an experimental teaching model incorporating the cognitive content with a greater balance of affective learning. TAPPS is a corporate training management model dividing expertise into Team-building Management, Analytical Management, Performance Management, Planning and Decision-making Management, and System Analysis Management.

Team-building was executed through an issue paper assignment which required a team of three students to research one issue among three different organizational systems. This mini-research experience helped the students gain both a macro and micro perspective of the issue with the affective experience of being measured by a team grade.
The analytical management skills were approached in a variety of ways, including problems, cases, mathematical models, and readings, and were assessed in a take-home test format as well as personal audit.

Performance management required that students write cognitive and affective objectives for the internship experience which were evaluated by both the intern and internship manager. This realistic goal-setting experience provides tangible evidence about the ultimate role of organizational expectations as they affect self-concept and general management liability.

Planning and decision-making management were explored as each student developed a problem-solving case experienced by that student in the internship organization. The case required a description of the organization with psychographics, facts, and opinions from a variety of executive levels, an intern analysis of advantages and disadvantages of alternative courses of action, and the actual company decision.

System analysis management permitted students to examine, describe, and analyze basic components and functions within the organization, including training, store organization and target customers or clients, management policies and procedures, personnel practices, merchandise or client service mix, pricing, profit and inventory systems, and advertising and promotion. Students were asked to prepare a final intern evaluation of the components and the whole system.

It is hoped that this brief description of an experimental internship model will influence university faculty to re-examine their attitudes and practices in light of affective considerations. The TAPPS model appropriately describes the joy felt as a former student is tapped for the CEO position and hopefully prepares the student for other taps when organizational reality and executive management performance are not in sync.

Basic Patterns Via the Micro Computer

Eleanor M. Woodson
Texas Tech University

Are computerized apparel functions reserved for mass production? Will the micro computer play a part in apparel production in the cottage industry movement? Would computerized basic patterns aid clothing programs in schools? These questions were posed as an introduction to a problem in an Apparel Design II class in a university. Students in a laboratory class pondered these questions as they draped basic patterns using a variety of vintage Wolf forms of various shapes representing a half dozen sizes. Few students in the class could wear any of the sizes available without some alteration. What seemed to be the ideal would be a multitude of size combinations that would be electronically stored and retrieved.

The purpose of the project was to explore the feasibility of producing basic patterns using a micro computer with accessory equipment and software. The resulting patterns would be compared with basic patterns produced by conventional methods.
To ascertain the extent of progress to date, a field trip was taken to a factory which had in use a computerized system for production of apparel. During the visit, various steps in the process were photographed. Later, a slide-tape program was developed for classroom use. Local electronics stores were visited for an update on graphic equipment available for use with a micro computer. Visits were made to the on-campus computer center and the center for textile research, where a pattern had been produced with the use of the plotter at the computer center.

In preparation for the class project, the instructor obtained a grant of electronic hardware and software from Texas Instruments, Inc. Included were a micro computer, a color monitor and a printer. It was discovered later, however, that a digitizer might be a very important piece of electronic equipment to add since patterns could be drawn instead of being produced by more complicated computer programs. Also, the digitizer would increase the capability of the equipment to include the designing of patterns.

Measurements taken by students of the Wolf forms were used for developing the computerized basic patterns, using the micro computer, the digitizer, and the printer. Students compared the resulting patterns with those produced by the conventional method. Evaluation included quality, production time, and cost of materials used. Other factors discussed were capital investment and space requirements.

There was a high degree of interest and curiosity among students regarding this project. Production time was not decreased through the use of the electronic equipment for the initial patterns. The savings in time accrued through storage and retrieval. Quality of the product was determined more by the expertise of the operator than by the equipment used. However, motivation was increased greatly.

It was evident that time would be necessary to develop the desired software for the multitude of sizes that could make computerized basic patterns very effective as a key tool in cottage industries. However, if computer programs were developed, combinations of measurements could be almost endless. If equipment is selected which has the capacity to enlarge or reduce patterns or if computer programs are available to perform those functions, the applications to fulfill designing needs could be expanded. The degree of ease in fitting clients or students could affect the future of clothing programs in schools as well as the feasibility of small business ventures of clothing and textiles graduates. With the computer to help us solve problems, we may have a bright future for our profession!

Class format:

C&T 337, Apparel Design II

Lecture 1 hour, laboratory 4 hours

Students in class: 19

Teaching materials developed:
Slide-tape presentation for computerized system used in mass production
Teaching materials developed (cont.)
Slide-tape presentation for micro computer used in production of basic patterns

Student response: Very positive

Visual Merchandising Workshop

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Northeast Missouri State University

A workshop format is used to provide contact with professionals in the field of visual merchandising for on-campus students and for local retailers. A professional free-lance visual merchandiser is invited to campus each fall semester to present a one-day workshop in techniques and current trends. Participants attend the workshop and complete additional requirements on an individual basis under the direction of an on-campus faculty member to obtain one semester credit.

The setting is a small university located in a town of 15,000 people, which is four hours driving time from the nearest major city. University funding policies dictate that workshops may be offered if the income generated covers the costs of guest lecturers and supplies. At the same time, funds for guest speakers to supplement regularly scheduled courses are almost nonexistent. Therefore, the workshop format allows contact with experts who are not available in the community at a minimal cost to both the student and the university.

The workshop is scheduled 8:00 a.m. until 4:00 p.m. on the second Saturday of the fall semester. Morning sessions include a lecture on opportunities and professional requirements for careers in visual merchandising, slides of current displays from New York, and a lecture on characteristics of effective displays. During the lunch session, students are asked to review designated store windows in the downtown area.

The afternoon session opens with demonstrations of techniques used in visual merchandising, following which the students are formed into groups to set up displays. The guest lecturer evaluates each student display with the whole class. When time permits, changes are made to comply with the suggestions and the displays are photographed.

The day closes with the on-campus faculty member reviewing requirements for students to complete the course. Each student is required to 1) submit a display plan, estimating cost, time requirements, etc.; 2) set up the display in a public place; 3) evaluate the effectiveness of the display; and 4) submit a short report, noting strengths and suggesting methods for improvement. All work must be completed by the end of the semester.

Although the format of the workshop is similar from year to year, the specific types of displays emphasized change to allow students to repeat participation. The 1981 workshop focused on fashion displays with manikins and the use of pinning and flying. In 1982, the emphasis was on institutional and home furnishings displays, while plans for 1983 stress presentation of fashion accessories.
About 60 percent of the participants have been university students with fashion merchandising or business majors. Another 10 percent of the participants have been librarians and area high school teachers of distributive education or home economics. The remaining 30 percent have been owners or managers of small retail establishments. The interest of these participants is demonstrated by the fact that several owners have traveled more than 100 miles to attend.

Student evaluations have been quite positive. In addition, participation by area retailers has opened the door to employment for several of the university students.

Making Blazers...Sew Fast and Easy!

Bette Jo Dedic
University of Kentucky

Each year the Extension Clothing Specialists receive many requests from Extension agents for help in planning and teaching tailoring. Teaching tailoring generally requires both a 6-8 week workshop and advanced construction skills. Few Extension agents have both the time and skills to teach tailoring. Many consumers also do not have the time to commit themselves to a 6-8 week workshop but still want the subject matter. With the decline in the percentage of family income spent for clothing, consumers need assistance in stretching their available clothing dollars. Clothing construction is one way to save money. Since tailored garments are usually the most expensive garments in one's wardrobe, more money can be saved by making them.

A slide set, "Making Blazers...Sew Fast and Easy!", was developed, making it possible to teach advanced tailoring in one 2-1/2 hour session. The program is designed to aid the consumer in making a tailored blazer quickly with a minimum of effort. Techniques are shown which reduce the difficulty in the notched collar/lapel area and enable the consumer to produce a garment comparable to ready-to-wear.

This slide set enables the extension agent who does not possess advanced construction skills to teach the subject, since no other visuals or samples are needed. Many Extension agents, however, prefer the specialist to present the program so the specialist can answer any technical questions consumers may have. Prior to the development of the slide set, this was not possible to do because of the large time commitment involved. Now the specialist can present the information for the agent in her county in one concise visit. Program participants receive a four-page handout of supplementary information so note taking can be kept to a minimum. Patterns for pressing equipment are also available for those who wish to make their own.

To date, 84 counties have offered this program as a special interest lesson to over 4,000 people. Twelve states have duplicated the slide set for their use.

Two evaluation forms were used, one to evaluate the presentation of the program and one to be used as an indication of accomplishments. All of those who returned evaluations (most did) indicated that the program had
been very worthwhile. The second evaluation indicated that most program participants had made at least one blazer and a great many had made several. Assuming an average of one blazer per participant, and a conservative estimate of $25-$40 savings on each (depending on fabric), participants realized a net savings of $100,000-$160,000.

**Dressing Slim--Self Study**

Judith S. Kline
Clemson University

In light of budget cuts, new methods must be developed to keep Extension agents trained and prepared to teach effectively. Traditionally, statewide inservice training has been conducted with a workshop/lecture format which necessitated travel of agents and specialists. One new approach that is working successfully in our state is self study programs.

There are advantages and disadvantages to all methods of teaching. The major disadvantage to a self study inservice program is the lack of interchange of ideas between specialist and agent, and agent and agent. Other disadvantages are the lack of immediate answers to questions not covered in the material and the possible lack of attentiveness of students. One of the major advantages of self study programs is the savings in transportation as well as of agents' time. A one-day statewide inservice training program in our state would cost approximately $1,000 for mileage and lunch. Other advantages of self study programs are freedom of scheduling, potential for self pacing, and opportunities to learn independently.

The "Dressing Slim" material was developed into a self study program and mailed to the counties. Once the program was developed, the only additional cost incurred with this method was approximately $150 for postage to mail out packets and video tapes. The dollar savings of this method was $850 over traditional methods.

The agents were requested to evaluate the materials and self study program as a method of inservice training. The responses were based on a scale of 1 (poor) to 5 (excellent). The average score for this self study program as a method of presenting inservice materials was a 4.42 out of a possible 5 points.

Each agent received a teaching manual and four video tapes. One video tape was for the agent's own instruction only. The three additional tapes were used as part of their own training but were also to be used directly with their clientele. The manual consisted of teaching outlines, scripts, leaflets, activity suggestions, and evaluation forms needed for the series.

The "Dressing Slim" program was developed to coordinate with our "Eating Slim" weight loss program. The series is divided into three segments. The first segment, "Selecting Clothes to Look Pounds Thinner," was designed for the person who is losing weight but still needs to select clothes that are slimming. The program emphasizes color, fabric, texture, and design lines that create slimming illusions. The second segment of the series is "Adjusting Clothes After Weight Loss" and is designed as a
workshop to be presented after the clients have lost 10-15 pounds. The adjustments are non-traditional adjustments that require very little time or skill. Three workshops were held to develop these methods. The adjustments were video taped and combined into one tape to show the "before" and "after" of the adjusted garments.

The third segment of the series is "Wardrobe Planning" and is intended to give the clientele the basics needed to plan a workable wardrobe. The completion of a weight loss program is an ideal time for wardrobe planning.

This method of training has been both economical and well received by the agents. To date, six other states have learned of the program and are considering it for use. All subject matter would not be suited to this type of self study, but in many instances this is a viable means of training agents.

Model for a Seminar: Design and Textile Marketing
Barbara Scruggs and Linda Welters
University of Rhode Island

Seminars incorporating guest speakers from industry provide an exciting learning opportunity for students and faculty in textiles and clothing programs. However, as financial resources shrink in the 1980s it becomes difficult to fund such seminars. At one state university, graduate seminars were successfully offered in 1981 ("Fiber Science and New Fiber Markets"), 1982 ("Design and Textile Marketing"), and 1983 ("Made in the U.S.A.") on shoestring budgets. Our model for a seminar could be applied to other textiles programs. This paper will 1) describe the procedure used in planning successful seminars, and 2) report the information learned from guest speakers in the "Design and Textile Marketing" seminar, as there is little published information on the relationship between design and textile marketing.

In planning the seminar each year, themes were selected which synthesized information textile marketing students learned from required courses. An effort was made to choose timely themes on which to focus seminar activities. Specific objectives of the seminars were 1) to explore various factors involved in marketing textile products, 2) to update students and faculty on new developments in the field, and 3) to expand student awareness of employment opportunities in the textile industry.

To utilize guest speakers effectively, class meeting times were scheduled once a week for three hours. In addition to six guest speakers, student reports and a field trip to a textile market center were scheduled. The course was limited to graduate students and upper level undergraduates enrolled for credit. Guest lectures were open to the public, with textile majors strongly urged to attend.

Approximately six months prior to the seminar, the process of inviting speakers was begun. A list of topics within the general theme was drawn up and matched to speakers and/or companies that might be able to address such a topic. Detailed invitational letters were sent to potential speakers, including suggestions for a lecture topic. Over half the invited speakers accepted.
Large companies sent speakers free of charge as a public service. Individuals from smaller organizations agreed to come for a modest honorarium plus travel expenses.

As soon as the speaker schedule was confirmed, a brochure was printed and distributed. The brochures cost relatively little to print considering their value as publicity tools.

The seminars were executed as planned. Students were asked to evaluate each speaker by summarizing and commenting on the lecture. The overwhelming response was genuine interest and enthusiasm for what was being learned, as speakers applied facts and theories that the students had learned in previous classes.

With respect to the "Design and Textile Marketing" seminar, the following information deserves consideration. In many colleges and universities, students take textile and apparel design courses in one department and marketing courses in another, leaving students without a clear understanding of how a textile or apparel company markets a new design idea. The 1982 seminar was structured to bridge this gap between design and marketing by inviting industry representatives to speak on various aspects of marketing textile design.

The topics explored by guest speakers included color forecasting (Color Association of the United States), marketing of man-made fibers for fashion (Celanese), promotion of cotton for home furnishing fabrics (Cotton, Inc.), designing textiles for bed and bath in a competitive marketplace (Burlington), and the operation of a successful couture establishment (Oscar de la Renta). Student reports included "Computers and Textile Design," "Using Art to Design and Market Textiles," and "Store Promotional Themes as Tools for Merchandising Design."

The Alterlab Lesson: A Simulation Package to Teach the Principles of Pattern Alteration

Francis W. Mayhew and Vickie Gardner
University of Delaware

The Alterlab Lesson is a computer-based instructional package which is designed to complement classroom instruction by providing a review of principles and the opportunity to apply conceptual learning to practice problems. The package allows the student to simulate the paper, pencil, scissors, and tape operations required to perform pattern alterations with the guidance of an "instructor" sitting alongside.

The package is organized with a tutorial introduction to review pattern alteration concepts and to classify fitting problems which indicate the need to apply these concepts. This segment is currently being used alone and contains a competency-based mastery test. Following the tutorial, there is a section which acquaints the student with the operational routines provided by the lesson. Once familiar with these operational capabilities, the student enters the simulation section. At this point, the student indicates whether s/he wishes to work on a designated assignment of practice problems (judged) or an individual pattern alteration. If s/he selects the practice problems, s/he is presented the list, chooses a problem, and continues
through a structured path in which progress is evaluated. This judgment occurs at critical points where an error would preclude successful completion of the alteration problem. The student's work is judged 1) for the location of the internal slash lines, 2) for the size of the required spread or overlap, and 3) for the outline of the final product (refinement or truing of distortion).

A student who made an error will not be permitted to proceed until it has been corrected. Meaningful feedback is provided to assist the student in correcting the error. If the student's work time must be interrupted before a problem is finished, the unfinished problem is stored until the student can return. A student who has completed an assigned problem can have the final solution saved. S/he can then elect to have a hard copy (paper) printed to turn in to the instructor or recall the solution for additional refinements before submission to the instructor. Should the student wish to work out an individual alteration problem, s/he will be offered the available range of pattern blocks and be permitted to work alone without the judgment component.

The lesson is supplemented with a Glossary of Technology. Students are informed that any term which is underlined in the lesson is defined in the Glossary. Also, students may enter a "Help" sequence which will route them back through specific instructions or introductory material.

Currently, the script for the Alterlab Lesson has been approved and major foundation programming is being done. The tutorial section is being used to supplement basic and advanced apparel construction courses. The target date for completion and refinement of the entire lesson is September 1985. Once this is achieved, expansion to include flat pattern design capabilities is planned.

The completion of the programming of this instructional package is supported by a grant from the Office of Computer-Based Instruction in the value of two years of dedicated service from a junior programmer. The Alterlab Lesson is being developed on the PLATO® Computer System, a product of Control Data Corporation.

The Clothing Index

Sandra S. Hutton
University of Nebraska-Lincoln

One difficult but necessary task for educators is staying current with and aware of recent research and general information articles in one's field. It has been particularly difficult for clothing professionals because many useful journals are not indexed or abstracted by existing commercial services. As we enter the "Information Age," the ability to retrieve information becomes increasingly important to teachers, researchers, and students.

Over the past four years, a computerized data base of the clothing periodical literature has been developed. One form of information retrieval from the Clothing Data Base is The Clothing Index, similar in format to the Social Science Index. Currently, citations and abstracts of over 5,200 periodical articles published between 1970 and 1981 are stored in the data
base and approximately 1,700 more citations will be added for the 1982 edition. Substantial effort was expended in 1982 to include English language articles published in European periodicals between 1970 and 1982. Editions of The Clothing Index which provide citations of articles from over 900 journals were presented, and ways in which the Index could be used in teaching and research were discussed.

Specific problems associated with location of citations, acquisition of articles, and analysis and classification of clothing knowledge were addressed. Prime among problems associated with the clothing knowledge component of the Index are the definition of key terms and the hierarchical structure of clothing concepts. Reactions from the audience were invited.
ACPTC BUSINESS MEETING MINUTES

Ala Moana American Hotel
Honolulu, Hawaii

July 7, 1983

1. President Phyllis Tortora called the meeting to order at 1:00 p.m.

2. The minutes of the previous business meeting were read by the secretary. The minutes were approved as read.

3. The treasurer's report was received as circulated. Attention was called to a corrected current account figure for the Publication Committee.

4. Phyllis Tortora asked that the rules be suspended to receive a motion to correct an inconsistency in the by-laws related to officers' terms.

   Martha Jenkins moved that the membership vote to suspend the rules of business in order that the present Executive Board remain in office until November 1, 1983, at which time the newly elected Executive Board would assume office. The motion carried.

5. Standing Committee Reports

   a) Nominating. Barbara Starke reported the following election results:

      President-elect - Joann Boles
      Secretary - Nora MacDonald
      Treasurer - Ardis Rewerts

   b) By-laws and Handbook. Martha Jenkins reported that the following seven items are being considered for by-laws revision:

      1) Clarification of terms of office of Board Members when the annual meeting does not occur in October.
      2) Changing the treasurer's term of office (regional and/or national) to January 1 or December 31.
      3) Changing dates of the membership year.
      4) Definition of the role of Counselor (past president).
      5) Addition of Clothing and Textiles Research Journal publication, including selection and term of office for the Editor and Associate Editor.
      6) Definition of criteria for honorary membership.
      7) Need for election of two alternates as Regional Representatives to National Board.

   c) Membership. Audrey Gieseking-Williams reported the membership to date includes 723 paid members, an increase of 25 members over last year. Roughly the membership by regions includes 190 members in Eastern region, 366 in Central region, and 157 in Western region. A report of an Ad Hoc Central Region Committee
to study changes in membership criteria was read. Since this report had not been discussed in regions, it was referred to regions for discussion.

d) Publication

Newsletter. Merry Jo Dallas reported that 57 articles were submitted for review for the Spring 1983 Newsletter. Twenty-eight articles were selected for publication. Two new features of the Spring issue were the subdivision of the Current Research Section into subject matter areas and the addition of an area to recognize the special achievements of members.

With the introduction of the Clothing and Textiles Research Journal, the Executive Board was asked to define a specific direction for the Newsletter.

Journal. Marjory Joseph reported that the first issue of the Journal was distributed early in December. Fifteen articles were received and reviewed and five articles were published. Copies of the first issue are available from Loy Walton for $6.50.

Thirty articles have been received for the 1983 issue and are currently being reviewed. The next issue is slated for distribution early in winter.

Marjory Joseph announced that the Executive Board approved the initiation of a $25.00 review fee. She also announced that the new edition of the American Psychological Association Publication Manual as well as some instructions specific to the CT Research Journal will serve as the guide for authors. These guidelines will appear on the back cover of the next Journal.

Under consideration is a special issue of the Journal for Spring 1984 directed to TC Futures issues. Phyllis Tortora will appoint a Publications Advisory Board to consider some long range financing concerns related to the Journal including
1. Size and number of issues
2. Advertising
3. Page Charges

Proceedings. Loy Walton reported that the Fall 1982 Proceedings are being mailed in plastic shrink wrap and at book rate.

6. Ad Hoc Committee Reports

Futures Committee

Marilyn Horn reported that the ACPTC Futures Seminar was held in April in Minneapolis as scheduled. A brief report of the seminar appeared on the back page of the Spring Newsletter. The Proceedings of the seminar will be sent only to the participants.
Others may order a copy of the Proceedings from Elizabeth Rhodes for $5.50.

Participants in the Futures Seminar will be conducting subregional meetings at which all ACPTC members may participate in the Futures discussion. The outcome of these subregional discussions will be compiled and will provide themes for 1984 Regional meetings.

Marilyn Horn requested that the Futures Committee be a continuing committee in the Association and that it be granted a small operating budget.

1986 National Meeting

Pat Horridge extended an invitation to hold the 1986 ACPTC National meeting in Houston during the city's sesquicentennial. Brochures on the city and the convention hotel were available.

7. Other Reports

ASTM. Phyllis Tortora reported for Carol Warfield. ASTM is continuing to explore a format to publish the most commonly used test procedures for student purchase.

ATMI. Phyllis Tortora reported that Fran Duffield is responsible for working with ATMI in planning a textiles seminar and tour. The tour, which will be open to one person from an institution, is being planned for April 1984. It is hoped that by that time the tour can include a plant making use of robots in its production.

Man Made Fiber Producers Association. Marjory Joseph reported that ACPTC provides an advisory group to MMFPA. This advisory group has been asked to review all MMFPA publications and make recommendations for additional educational materials. Members were asked to submit requests for such materials to Marjory Joseph or Phyllis Tortora.

Ann Kernaleguen moved a vote of thanks to the Man Made Fiber Producers Association for their support to the field of textiles and clothing in general through their establishment of the award for an outstanding textile and clothing researcher made through AHEA and in particular for the grant to ACPTC which funded the Futures Seminar. The motion was passed by acclamation.

The MMFPA award presented at the 1983 AHEA meeting went to Mary Ann Morris. Members were asked to nominate persons for the 1984 award.

8. President's Report

Phyllis Tortora called attention to the summary of ACPTC activities as reported through committee chairs and officers. She thanked
officers, committee chairs and members, and particularly Loy Walton for their efforts on behalf of ACPTC.

9. Program of Work

Marilyn Horn presented the following statement of goals to direct the work of the Association during the 1983-84 year.

1. Promote regional and subregional seminars and/or study groups that will focus on future directions for the field of textiles and clothing.

2. Provide for greater interaction and involvement of all ACPTC members in a reconceptualization of the philosophical base of the field.

3. Encourage the publication of articles on controversial aspects of future directions for ACPTC and/or issues facing clothing and textiles in the future.

4. Maintain updated bibliographies and lists of resources that will aid in the development of futures literacy and critical thinking skills.

5. Develop strategies for the planning and implementation of long-range, forward-looking programs in textiles and clothing.

6. Move toward a common understanding of mission in order to strengthen the voice of ACPTC in articulating the importance of clothing and textiles to those who are responsible for determining institutional priorities.

Anna Jean Treece moved to approve the program of work. The motion carried.

10. New Business

Phyllis Tortora noted that, since regular regional ACPTC meetings will not be held in Fall 1983, the Association may want to work with the Textiles and Clothing Section of AHEA to provide some professional development opportunities at the AHEA annual meeting to be held in Anaheim, California. Martha Jenkins, who will serve as the AHEA TC Section Chair, welcomes program suggestions.

Amelia Adams called for an expression of thanks from the group to Orpha Herrick and Barbara Harger, local arrangement chairpersons, for the excellent arrangements and program provided at the Hawaii meeting.

Dorothy Jensen asked that the next Newsletter include guidelines for authors and that it also list, as a service to libraries, procedures and costs for ordering the Newsletter.
Audrey Gieseking-Williams called for an expression of appreciation from the group for Phyllis Tortora who provided outstanding leadership as president of ACPTC during the 1982-83 year.

The meeting was adjourned at 2 p.m.

Agatha Huepenbecker
Secretary

Association of College Professors of Textiles and Clothing

Minutes of Central Region Business Meeting

Honolulu, Hawaii

July 8, 1983

I. The meeting was called to order at 8:00 a.m. by the President, Mary Littrell, at the Ala Moana American in Honolulu, Hawaii. Mary Littrell introduced the CR officers and council members for 1983: Marilyn DeLong, president-elect; Kitty Dickerson, secretary; Nelma Fetterman, treasurer; Ruth Marshall, Jacky DeJonge, Jo Ann Hilliker, council members; Martha Jenkins, Geitel Winakor, representatives to National Executive Board.

II. The minutes of the October 1982, Business Meeting were distributed by Jacky DeJonge for Kitty Dickerson, CR ACPTC Secretary. Jacky DeJonge moved that the minutes be accepted and spelling corrections of names be made.

- Item IV. D should read: "Jo Ann Hilliker" (correction of spelling)

- Item VIII. A should read: "...the Costume Society of America may sponsor a publication." (change of wording)

III. Nelma Fetterman, Treasurer, distributed the interim financial statement. The balance on hand as of June 21, 1983, was $6,775.20. Not all disbursements have been paid. There is $11,093.15 invested in a money market certificate. After disbursements, the checking account balance will be brought down to a more reasonable amount by adding to the investment account. Nelma Fetterman moved that the interim financial report be accepted. Anna Jean Treece seconded the motion. The membership voted to accept the statement.

IV. Committee Reports

A. Nominating: Jacky DeJonge indicated that there was only a 44% return on the CR-ACPTC ballot and encouraged greater participation in the future. The newly elected officers are
President-elect, Hilda Buckley; Treasurer, Mary Frances Drake; Council Member at Large, Lynne Richards; Alternate to Council, Betty Feather; National Executive Board Representative, Esther Meacham; Alternate to National Executive Board, Agatha Huepenbecker.

B. Membership: Bette Tweten's report was given by Mary Littrell. Nineteen CR clothing specialists were contacted and encouraged to become members of ACPTC. A recognition for new members plan is being developed by the Membership Committee which will be implemented at the 1984 CR-ACPTC Conference. Ideas are currently under consideration by the Membership Committee for a recruitment bonus system. A list of CR institutions offering Textiles and Clothing programs is available from Bette Tweten for $1.00. The Ad Hoc Membership Criteria Committee recommendations will be discussed at state meetings on Future Directions this fall.

C. Fellowship: Jo Ann Hilliker reported that application forms were mailed to 14 people representing 12 schools upon request. Application materials were received from a total of 7 applicants. Usha Chowdhary, Ohio State University, was awarded the fellowship for the 1983-84 academic year.

V. Other Reports:

A. Future Developments Committee: Mary Don Peterson, CR Representative to the National Committee and incoming National Chairperson, reported on the National Futures Workshop held in April in Minneapolis. The follow-up plan commissions delegates to the national workshop to be responsible for providing a state or two-state meeting for each state in the Central Region. These meetings will begin in late August. They will go through the SWOT process and forward the outcome to Mary Don Peterson by December 1, 1983. This information will be used to develop the program for the 1984 regional meeting in Knoxville.

<table>
<thead>
<tr>
<th>ACPTC Futures Workshop Information Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>States</td>
</tr>
<tr>
<td>Illinois and Indiana</td>
</tr>
<tr>
<td>Iowa and Wisconsin</td>
</tr>
<tr>
<td>Kansas and Oklahoma</td>
</tr>
<tr>
<td>Michigan</td>
</tr>
<tr>
<td>Minnesota</td>
</tr>
<tr>
<td>Missouri</td>
</tr>
<tr>
<td>Nebraska</td>
</tr>
<tr>
<td>North Dakota and South Dakota</td>
</tr>
<tr>
<td>Ohio and Kentucky</td>
</tr>
<tr>
<td>Hilda Buckley</td>
</tr>
<tr>
<td>Mary Littrell, Geitel Winakor</td>
</tr>
<tr>
<td>Holly Bastow-Shoop;</td>
</tr>
<tr>
<td>Mary Don Peterson;</td>
</tr>
<tr>
<td>(Janet Wagner)</td>
</tr>
<tr>
<td>Barbara Stowe</td>
</tr>
<tr>
<td>Marilyn DeLong</td>
</tr>
<tr>
<td>Betty Feather</td>
</tr>
<tr>
<td>Joan Laughlin</td>
</tr>
<tr>
<td>Charlotte Bennett</td>
</tr>
<tr>
<td>Dorothy Behling</td>
</tr>
</tbody>
</table>
ACPTC Futures Workshop Information Network (Cont.)

Tennessee and Mississippi
Jacquelyn DeJonge
Texas, Arkansas, and Louisiana
Ardis Rewerts
Canada-Ontario
Marjorie Wall

B. National ACPTC Activities: Martha Jenkins reported on the inauguration of the ACPTC journal. There will be a bylaws vote later this year. The National officers were announced. Martha commended CR for taking leadership in such areas as the membership criteria. Pat Horridge suggested that CR pass on our guidelines for research to National.

C. National and Regional ACPTC Newsletters: Marilyn DeLong reported for Gloria Williams that an interim report on the regional newsletter will be coming this Fall.

D. ASTM: Mary Littrell reported for Ruth Franzen on the attached report.

VI. Old Business

A. 1984 Regional Meeting, Knoxville: Jacky DeJonge reported that plans are well underway for the Knoxville meeting Thursday, October 25--Saturday, October 27, 1984. The Futures theme will allow conference participants to work with resource persons on action plans for the opportunities identified in the sub-regional meetings. There will be a selection of half-day tours in the area beginning on Thursday morning. A two-day craft workshop at Arrowmont will precede the conference. Rob Hillstead and Lynne Richards are co-chairing the Fiber Art/Wearable Art Juried Exhibition. The CR Board voted to contribute $500 toward the show; the remainder of the expenses will come from entry fees and conference registration.

Mary Littrell announced that the 1985 meeting will be at Iowa State. A host is needed for the 1987 CR meeting. The 1986 National Meeting is in Houston. Pat Horridge and Carolyn Callis are program co-chairs. Jerelyn Gooden will serve as local arrangements chairperson. The 1988 National Meeting was discussed. The group preferred Atlanta over Charlotte for the location.

B. Clothing and Textiles Research Journal: Mary Littrell reported that ACPTC dues can support one issue per year. Geitel Winakor will propose to the National Board that an ACPTC Publications Board be established to deal with the Newsletter, Journal and Proceedings. Sandra Hutton encouraged members to get the Journal into our college libraries. Anna Jean Treece asked what liaison groups have received a copy of the Journal. After discussion, Marilyn DeLong suggested the Board look into what National is doing on this matter and have CR take the leadership if no action is being taken.
C. ATMI Tour: Mary Littrell announced the tour will be in April, 1984.

VII. New Business

A. 1984 ACPTC Program of Work: Marilyn DeLong, President-Elect, presented her Program of Work, stressing the two major points: encouraging and promoting Futures movement in the Central Region and promoting those vehicles of communication which will aid Central Region members in professional development. Pat Horridge moved that the Program of Work be accepted. Ruth Marshall seconded the motion. The membership voted to accept the Program of Work.

Anna Jean Treece moved that the meeting be adjourned. Pat Horridge seconded the motion and the membership voted to adjourn at 8:50 a.m.

Respectfully submitted,

Jacky DeJonge for Kitty Dickerson, Secretary

July 8, 1983
ASSOCIATION OF COLLEGE PROFESSORS
OF
TEXTILES AND CLOTHING, INC.
CENTRAL REGION

INTERIM FINANCIAL STATEMENT

July 8, 1983

ANNUAL BUSINESS MEETING
Honolulu, Hawaii

Submitted by Nelma Fetterman, Treasurer

1. GENERAL FUNDS (Norwest Bank, Fargo, N.D.)

<table>
<thead>
<tr>
<th>1982-83 Budget</th>
<th>Budget Category</th>
<th>1982-83 Receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,230.57</td>
<td>Balance on hand from 1981-82 fiscal year</td>
<td>$1,230.57</td>
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<tr>
<td></td>
<td>membership dues for 1981-82 fiscal year</td>
<td>8.00</td>
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<tr>
<td>2,775.00</td>
<td>Membership dues for 1982-83 fiscal year</td>
<td>2,693.00</td>
</tr>
<tr>
<td>286 @ $8.00</td>
<td>81 @ $5.00</td>
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<tr>
<td></td>
<td>Sale of Proceedings</td>
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<tr>
<td>100.00</td>
<td>Return of funds forwarded to 1982 Conference Registration Committee</td>
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<td>0.00</td>
<td>Conference '82 balance</td>
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<tr>
<td>$4,305.57*</td>
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<td>$7,977.00</td>
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$7,977.00

97
## DISBURSEMENTS

<table>
<thead>
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<th>1982-83 Budget</th>
<th>Budget Category</th>
<th>1982-83 Expenditures</th>
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<td>75.00</td>
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<td>300.00</td>
<td>President's Expenses</td>
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<td>300.00</td>
<td>Secretary's Expenses</td>
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<td>65.00</td>
<td>Treasurer's Expenses</td>
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<td>900.00</td>
<td>Council Meetings</td>
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<td>- telephone charges - $282.14</td>
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<td>- duplicating/postage - 45.15</td>
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<td>(to be reimbursed from</td>
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<td></td>
<td>Scholarship and Publications Fund)</td>
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<td>Juried Art Show</td>
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<td>305.57</td>
<td>Contingency (7.1%)</td>
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<td></td>
<td><strong>$4,305.57</strong></td>
<td><strong>$1,201.80</strong></td>
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<td></td>
<td><strong>BALANCE ON HAND (June 21, 1983)</strong></td>
<td><strong>$6,775.20</strong></td>
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*This amount differs from the October 31, 1982, proposed budget because the amount brought forward from 1981-82 was $1,230.57 (not $1,242.87).

## II. SCHOLARSHIP AND PUBLICATIONS FUND

### A. Fund Working Account (American Federal Savings and Loan, Ames, Iowa)

#### RECEIPTS

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<td><strong>Total Receipts</strong></td>
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#### DISBURSEMENTS

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<th>Description</th>
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<tr>
<td>Second installment to Catherine Daly</td>
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<td>Fellowship Selection Committee Expenses</td>
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<td>Reimbursement to General Fund for 1981-82 expenses</td>
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<tr>
<td><strong>Total Disbursements</strong></td>
<td><strong>$ 565.92</strong></td>
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</table>

**BALANCE ON HAND (April 6, 1983)** $ 565.92
B. INVESTMENTS (American Federal Savings and Loan, Ames, Iowa)

March 18, 1983 - September 16, 1983: $11,093.15

Money Market Certificate at 9% + compounding

III. JURIED ART SHOW (account closed October 1, 1982)

When the account was closed, the remaining amount in the account was $21.03. In February 1983, a bill was submitted for $92.92. This was the expenditure for internegatives used for publicity and slide reproductions of winning entries. Hence, this account was depleted and remaining expenses were paid from the general account.

MEMBERSHIP STATEMENT

May 2, 1983: Active 286
Reserve 31
Graduate Student 50

TOTAL 367

Eastern Region ACPTC Business Meeting Minutes
Honolulu, Hawaii
July 8, 1983

The meeting was called to order by President Judy Flynn at 8:05 a.m.

The minutes of the October 21, 1982, business meeting in Atlanta were approved as read.

The treasurer's report submitted by June Mohler was presented by President Flynn. The current budget statement (June 10, 1983) reflects a balance of $579.92 in the General Account and $7,051.28 in the Publications Account. The Finance Committee report recommended that "the Finance Committee develop a projected annual budget and that this proposed budget be sent to Executive Council for their approval. The approved budget will be presented to the membership at the annual business meeting for purposes of information and accountability." The projected budget for November 1, 1983--October 31, 1984 was presented. Allocations for the various offices and committees were discussed; it was suggested that perhaps the planning meeting for the 1984 conference (Greenbriar) could be held in a different location to curb expenses. A motion to receive the treasurer's report was seconded and approved.

President Flynn presented the following committee reports:

ASTM. Carol Warfield submitted a report included in the national business meeting earlier.

Membership. The substance of Carol Warfield's report was included in the membership report presented at the national business meeting.
Archives. Judy Flynn has acquired more material than available space will accommodate. A categorical filing system has been developed to assist Presidents in record keeping.

Newsletter. Jo Paoletti's report indicated that duties associated with compiling the newsletter had been completed. It was announced that Marie Carver will be national newsletter editor when the editorship rotates to Eastern Region.

President-Elect Elizabeth Rhodes presented the following reports:

By-Laws and Handbook. The Handbook has been updated and will be distributed to the Executive Council this summer.

Futures. The summary of the national futures conference held in Minneapolis was reported at a special session earlier in the week. It was emphasized that participants were learning the process of futuring. They did not feel that only 30 individuals could decide the future direction for the entire organization. Since it was felt that more membership involvement was needed before 1984 regional meetings, each region has planned some type of follow-up activity for the fall of 1983. Eastern Region will hold three subregional meetings:

- Framingham State College (October 28-29)
- University of Maryland (November 4-5)
- Georgia College (October 28-29)

At each meeting, participants in the Minneapolis meeting will act as facilitators; each group will be introduced to the futures process so there would be common understanding upon which the Greenbriar meeting could build. It is expected that the original Minneapolis participants will reconvene after the 1984 regional meetings to bring about synthesis.

The plans for the subregional meetings were discussed. Each meeting will involve similar working sessions, although each location varies somewhat in terms of lodging, meals and other accommodations (and therefore costs). Each Eastern Region member will be sent a cover letter, meeting agenda, and choice of three sites; it was expected that the meetings would be open only to ACPTC members. Amelia Adams questioned the limitation to members only, since inclusion of persons eligible for membership (but who have not joined) could be valuable. Possibilities for ways to include them were discussed. A "straw vote" produced the following results:

- Don't permit non-members to attend -- 1
- Permit non-members to attend at increased fee -- 8
- Permit non-members to attend without penalty -- 3

Part of the conference registration fee will cover the $5.50 cost of the proceedings from the Minneapolis meeting; these will be sent to participants for orientation, reaction, etc.
Future meeting sites were announced and discussed:

1984--Regional meeting, Greenbriar (contract secured)
1985--Regional meeting, Providence/Newport (contract secured)
1986--National meeting, Houston (Central Region)
1987--Regional meeting, Charlotte (contract in process)
1988--Regional meeting, central part of region (to be decided by ballot)
1989--National meeting, Eastern Region will issue invitation to Atlanta

Results of recent elections were announced. Jo Paoletti and Nadine Hackler were elected as new Eastern Region Council members. These are the last two council members to be selected at-large; henceforth, council members will be elected to council offices. Jane Lamb was elected to a two-year term as Eastern Region Representative to the National Executive Board.

The officers for the next year were announced. Elizabeth Rhodes will serve as President, Carol Warfield will be President-Elect, and June Mohler will continue as Treasurer. A secretary will be elected at the Council meeting in January.

President-Elect Elizabeth Rhodes discussed plans for the coming year. The Futures activities encompass the focus of the program of work. By 1984, it is expected that we will have accomplished some tangible products but the process is important for their development.

The meeting was adjourned at 8:55 a.m.

Respectfully submitted,

Jane M. Lamb
Acting Secretary

ACPTC/ER
TREASURER'S REPORT
June 10, 1983

GENERAL ACCOUNT

Funds received from Leatha Dardan 2/1/83 $6,327.57

INCOME

Dues received from National:

<table>
<thead>
<tr>
<th>Date</th>
<th>Amount</th>
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<tbody>
<tr>
<td>1/4/83</td>
<td>$192.00</td>
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<tr>
<td>2/15/83</td>
<td>897.00</td>
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<tr>
<td>3/8/83</td>
<td>103.00</td>
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<td>4/11/83</td>
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$1,296.00
INCOME (Cont.)
University of Georgia 3/8/83 800.00
(for Atlanta meeting 10/82

Interest Earned 80.63
Total Income 2,176.63

LESS transfer to publications account 4/11/83 7,000.00

DISBURSEMENTS

Check printing charge $ 6.85
President's Office expenses 218.28
Travel (Futures meeting) 500.00
Treasurer (Bond and mailing) 41.31
Telephone conference call 109.09
Committee expense (mailing) 48.75

Total Disbursements 924.28

BALANCE on hand June 10, 1983 $ 579.92

PUBLICATIONS ACCOUNT

Funds received from General Account 4/11/83 $7,000.00

INCOME

Interest earned (through 5/14/83) 55.80

$7,055.80

DISBURSEMENTS

Check printing charge 4.52

BALANCE on hand June 10, 1983 $7,051.28
ACPTC-WR BUSINESS MEETING

Friday, July 8, 1983

Ala Moana Americana Hotel
Honolulu, Hawaii

1. Call to Order: The business meeting of the ACPTC-WR was called to order by Orpha Herrick, 1982-83 President.

2. Introduction of Executive Board: The current board members for ACPTC-WR were introduced.

3. Minutes of the October 22, 1982, Business Meeting: No discussion was held since these minutes have not yet been circulated to the general membership. They will appear in the 1982 Proceedings.

4. Financial Report and Budget: The official budget is not yet available because the fiscal year has not ended and Mildred Crawford, Treasurer, did not receive the audit until June 20. A financial statement (attached) was distributed and reviewed. Investments now include money transferred from the E. F. Hutton fund to a fund with a higher rate. Proceeds from the Tucson conference have been placed in another short-term fund with checking privileges. The financial statement was accepted into the record.

5. Membership Committee: Ardis Koester, Chair, reported that there is a paid membership of 157. The Chair has provided state membership people with a list of members so that nonmembers can be contacted and asked to join. There are 23 non-renewing members and 8 new members this year.

6. Handbook and By-laws: Audrey Gieseking-Williams, Chair, reported that she, Linda Lansing and Marjory Joseph have spent the last year working on revising the By-laws and Handbook. Work on this project will continue through the summer and fall. Several issues were reviewed, including 1) change in the membership year from November 1 to September 1; 2) proposed authorization for the Treasurer to open a Publications, Research, and Scholarship Fund; and 3) authorization of only the President to be reimbursed for travel. Orpha Herrick noted that a three-year budget is needed to take into account differences in expenses between regional and national meetings.

7. Nominating Committee: Marcia Morgado, Chair, noted that, out of 120 members eligible to vote, 74 did so. Jean Margerum is President-Elect; Leslie Davis, Antigone Sutton, and Barbara White are new Board members; and Susan Kaiser is the new National Board Representative.

8. Publications and Newsletter: Marcia Morgado, Western Region Editor, estimated that the newsletter published about 50 percent of the articles that were submitted.
9. 1984 Regional Meeting: Tom Peterson, Conference Chair, reported that the 1984 conference would be held in Salt Lake City on October 18, 19 and 20. Information on this conference will be mailed in the fall. Current plans are to have much of the research presented in poster sessions. All presented studies, both posters and papers, will have abstracts in the proceedings. It was recommended that abstracts indicate where a full report of the studies can be found. It was also suggested that abstracts could be available for sale at the conference.

10. ASTM Liaison: Nancy Owens, Regional Representative, was not able to attend the spring meeting.

11. WRCC-23: Merry Jo Dallas reported that a meeting would be held in San Francisco this fall. Plans are to continue work on the research abstracts and the temperature effective clothing bibliography.

12. Meeting Site for 1985: Orpha Herrick announced that Anne Lambert and Margaret Rucker would be checking on the feasibility of Vancouver and San Francisco/Napa/Davis as possible locations for the 1985 meeting. These possibilities and any other offers will be considered at the 1984 meeting.

13. Change of Chair: Orpha Herrick turned the meeting over to Charlene Lind, 1983-84 President. Orpha was commended for her work as both Regional President and Conference Chair.

14. Plan of Work: Charlene Lind noted that ongoing work had already been covered; work would continue on matters such as fiscal policy.

15. Futures Committee: Charlene Lind asked for interest among WR members in having subregional meetings. One group has already expressed interest in meeting in the Los Angeles area. Other subregions suggested for meetings included Northern California/Nevada, Washington/Idaho/Montana, and Arizona/Colorado/New Mexico. The meetings should last only a day or so during a weekend since interested faculty may find it difficult to obtain releases from teaching commitments. Furthermore, the meetings should be held on campuses where there is access to conference rooms during weekends. Participants will have to pay their own expenses to cut costs charged to the Association. The Association will cover mailing costs.

16. New Business: Carol Harsha asked for a show of interest in textiles and clothing tours in conjunction with the AHEA Conference in Anaheim. Considerable interest was expressed in such tours.

Members were asked to consider possible changes in membership requirements for ACPTC. There was a positive response to expanding the membership to include faculty from countries other than the United States and Canada.
17. **Adjournment:** The meeting was adjourned by President Charlene Lind.

Respectfully submitted,

Margaret Rucker, Secretary

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**Association of College Professors of Textiles and Clothing - Western Region**

State of Support, Revenues and Expenditures and Changes in Fund Balance for eight months ended June 23, 1983

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<tr>
<th>Support and Revenue</th>
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<tbody>
<tr>
<td><strong>Support:</strong></td>
<td><strong>Revenue:</strong></td>
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<tr>
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<td>Conferences</td>
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<tr>
<td>$1,211.00</td>
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<td><strong>Total Support and Revenue</strong></td>
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<table>
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<td>Service Charge</td>
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<td><strong>Total Expenditures</strong></td>
<td>745.55</td>
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</tbody>
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Excess of Support and Revenue over Expenses | 3,215.98 |

Fund Balance at Beginning of Year | 6,923.75 |

Fund Balance at End of Year | 10,139.73 |

Submitted by Mildred Crawford, Treasurer