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PRESIDENTIAL ADDRESS

MOMENTUM FOR THE MILLENNIUM: ENVISIONING OUR FUTURE
(Summarized for Proceedings)

Antigone Kostiopulos
Colorado State University, Fort Collins, CO

Momentum. Where does it come from? Who creates it? Why is it important? Momentum is built and comes from the past. Planning for the millennium comes from environmental scanning and our own creativity.

While examining history to gain perspective, it’s important for us not to be ethnocentric. We teach our students to be observant of trends, but we must do the same. Sometimes we get so ingrained in our perceptions that we fail to see reality. Because we are not involved in something—we fail to see that others are involved. Naisbitt had some interesting statistics in Global Paradox and I want to see if you are surprised. One and one-half million Americans have bungee jumped, two million Americans have white water rafted, two and two-thirds million Americans have jumped out of an airplane, and ten million will cruise annually by the year 2000.¹ I was less surprised by the white water rafting and cruising figure—probably because they were things I had done.

I’m not sure if this presentation is a series of verbal free falls or bungee jumps—but there are several thoughts I’d like to share both about our past and the future. In examining industry changes over the last 150 years, I primarily examined retailing for three reasons 1) it represents the area in which the majority of our students gain employment, 2) it is one we can relate to as consumers and 3) more importantly, I am more familiar with this segment. You will also see evidence of my strong interest in technology. Historians, please excuse the simplicity of my approach. I tracked dozens of changes in our related fields and professions over the last 150 years and there seem to be three modes of change:

1. Progressive change to a new state
   Examples:
   a. Production Economy (Manufacturing) ◊ Consumption Economy (Retail) ◊ Distribution or Service Economy (Technology)
   b. Steady labor needs and use of stockpiling ◊ Fluctuating labor needs due to weather, fashion, consumer interests ◊ More part-time labor needs and people working at home
   c. Yard goods featured in general and department stores ◊ Yard goods moved to lower cost spaces and specialty operations ◊ Yard goods carried by niche operators

2. Progressive increase or decrease of an element
   Examples:
   a. Women entering the workforce ◊ More women in the workforce ◊ Women = 1/2 the workforce
   b. Focus on local or regional issues ◊ Focus on regional or national issues ◊ Global concerns
   c. Hand shake to close a deal and self regulation ◊ More contracts and regulations ◊ Excessive litigation and growing complexity of regulations

3. Moving from one extreme to another lending to a blending of the perspectives Examples:
   a. Ag/Home Economics, Arts/Humanities focus ○ Growth in specialized programs, Merchandising, Business, Apparel Design ○ Decline in Business enrollments balancing specialized and generalized coursework
   b. One Executive/Owner ○ Executive and Manager ○ Super Executive for Conglomerate, Executive and Manager, as well as more entrepreneurs
   c. Retailer bears all distribution costs ○ Retailer/Manufacturer/Distributor share costs ○ Retailer bears more costs of distribution.

While approaching change in this manner is simplistic, I was able to categorize most changes using one of the three modes. I was also able to put some other thoughts into perspective. For example, some of the decisions from the 1850's-early 1900's\textsuperscript{2,3} that caused a stir included:

- Department stores expanding retail assortments (Which one writer described as "spelling certain doom" for dept. stores)
- Moving from a central cash drawer to individual dispersed cash drawers
- Offering lower prices and better service (accused of illegitimate competition)
- Moving from retail ads that looked like classified ads to using drawings
- Moving from store windows packed with quantities of merchandise to a displays with a smaller set of related items
- Small business opponents of new forms of retailing, proposed bills to fight them and held public hearings, with some cases going to supreme court
- Changes in methods for expense classification and accounting
- New methods of assessment and measurement of productivity which differed from those used in manufacturing
- Move from folded table display of merchandise to use of hangers
- Redistribution of retail space based on square footage and productivity as well as selling and non-selling space
- The development of inventory control methods

We can look at these so called "radical" moves now and find them quite humorous, but they were dramatic and stressful at the time. And of course, we know that not all our ideas are new ideas. With all the discussion about customer services you would think it was a brand new concept. However, before 1900's, retailers were offering services such as lost and found desks, post offices, telephone or telegraph stations, unconditional exchanges and refunds, a carrier for parcels while shopping in the store, and home delivery of parcels as small as a spool of thread. They also had personal shoppers.

Now let us move to current and future times.

- The Census Bureau no longer tracks the number of households with televisions because most households have at least one, so the data is not providing new information. Sixty percent have cable. We know there will be growth in cable channels, niche markets, and more satellite, cellular and fiber optic applications. But can you believe that all the technical knowledge we have today is estimated to be one percent of the knowledge base that will be available in the year 2050.

- Some foresee us having a life long access number where we can be reached by
multiple modes of communication anywhere in the world. Just as we have Internet, Fort Collins may have Fortnet and we may have ITAAnet. How about BUYnet. BUYnet could be the central supplier for standardized parts, fasteners and the like as an outgrowth of new global standards.

- Others see more data exchange between the consumer and the retailer or manufacturer. For example, using a data collection device such as airborne tracking, the mail order company can gather consumer information and transmit it back to the retailer, TV buying service or manufacturer. In turn, some are talking about reverse advertising, with the consumer communicating needs to the retailer and manufacturer. This thought is parallel with the concept of just-in-time production.

- Agricultural and manufacturing sectors are shrinking. The service economy in general and tourism specifically are growing. Do we need to look at new links and focus? Also related to tourism—will study tours be replaced by virtual travel?

- With our interest in aesthetics and marketing should we be looking at new niches like product packaging? There are environmental design, and cultural issues that must be addressed. As design and marketing functions move faster in their cycle can we respond fast enough if we are working with business and industry?

- Remember the first time you saw a copy machine, a computer or a fax machine. Now think of all that wrapped up in one piece of equipment that is smaller than any of our current laptops, then add a picture phone and a Dictaphone.

Changes in family structure, education, religion, economics, transportation, interactive TV/communications, demographics, special interests, time use/time poverty, exercise, entertainment will all impact our future. Each of our institutions is different, so we can’t lay out a plan for sure success. We can, however, look at the inevitable. We all know that college and universities will continue to maintain programs that fit mission, raise/maintain quality yet improve efficiency, increase resource base, match resources to higher priority needs/areas, remain accountable, and have fewer administrators (as technology expands) with an effective span of control growing from 6 to 21 employees.

Each of us must scrutinize our program in terms of these six points, or those factors posed by our institutions, and meet the challenge. We must focus on our strengths based on geographic location, faculty expertise, campus politics, state needs or other pertinent factors. Some academic programs have grown in stature and visibility due to growth in numbers, accreditation, influencing on legislation lobbying, licensing requirements, recertification requiring educational updates, and shortened half-life of their information base. Can we do more to enhance our stature and visibility?

I believe it is important to stay politically active. The need for strong fund-raising and marketing skills will persist and more than ever we need to be getting the news out about all the good work that we are doing — individually and collectively. It is important to study issues, get the facts and speak out. Most of all let us develop positive energy and not negative.

Preparing for the millennium requires environmental scanning and a willingness to change and stretch to extend to new territories. Here’s one simple example:

- 31% of US homes have a PC and prediction is 50% by 1998
- Expenditures in home software in 1993 = $200 million Decline of technophobia

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4Business Week, November 1993.
and continually dropping prices for PCs.
- New PCs being bought with CD-ROM is about one in four
- Blockbuster Video plans to put multimedia PCs and software in its 2,400 stores
- Club Kidsoft, a quarterly magazine aimed at children 4-12 years old, includes a CD-ROM disk in each issue for an annual subscription rate of $9.95.

All of this points to CD-ROM as a must not a "should we." Many of us pushed hard to establish computer labs which could soon become a thing of the past. The home market for PCs is growing at triple the rate of the overall US PC market. Computer labs will not be rooms full of computers. Students will have laptops and palm tops which will not need to be wired into a system. Access to the network will take place much like access with cellular phones.

*Futurist Magazine* notes that by 2050 almost half the total US population will be Spanish-speaking. TC2 already has training tapes in Spanish, but many of us have dropped academic language requirements.... which frequently used to suggest French as the most valuable language in the field. Even knowledge of translation services would be valuable as some of our students will be buying such systems or services and should know about ways of getting the job done.

Growth in volunteerism, service and experiential learning is now growing in popularity. My institution started tracking volunteerism in the mid 1980's at which time 500 students participated in volunteer project. Today the number has grown to over 6000. With our traditional emphasis on internships and practicums this is an ideal time for them to thrive. This interest in service is also showing up in ITAA. I'm pleased to report an overwhelmingly positive vote to our recent bylaws ballot. I would like to share some opportunities we face. We believe the new structure will provide greater opportunity for participation on the board with greater flexibility for responsibilities on the part of the council.

The rest of the presentation summarized some of the responsibilities of the five Vice-Presidents and their visions for the future.

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3*USA Today*, December 1993.


Over the past ten years, my research, and that of the faculty and graduate students with whom I have worked, has linked the lives of textile craftpersons, the retailers who sell their products, and the consumers who buy the apparel and textiles to wear and to use in their homes and workplaces. As part of a global dialogue, each of these participants is reaching out to the others for creating a future enriched by meaning from the work they do and the products they buy. They are coming together in a new global market where artisans are continents away from the consumers who use their products on a daily basis; where importers are introducing standards for quality control and large-scale production; and where international retailers demand timely delivery, quality control, and low prices.

For the artisans, their products are now commodities moving through a process of decontextualization in the developing world to recontextualization in the lives of consumers far away. This global market has potential to create anonymity and loss of meaning for producers, marketers, and consumers. On the other hand, it also holds opportunities to create a new kind of marketing that provides sustained and meaningful employment to vast numbers of artisans, many of whom are poor and have few income alternatives.

Research on the craft marketing system provides the illustrative content for this paper; however, the working strategies have application to programs of research across all areas of textiles and apparel. First, I will offer some insights on modes of operation that have been important to me in developing and maintaining a research program. Second, I’ll introduce theoretical propositions that have evolved from my work over the past ten years. Third, I’ll examine each part of the craft marketing system as illustration of how I have arrived at the grounded theory. In this section, I’ll be illustrating two working strategies. Finally, I’ll end by reflecting on some broader issues that contribute to theory development and sustaining a program of research.

Before proceeding further, I want to clarify my definition of crafts. As my research program has evolved, so has my definition of crafts. Today’s working definition of crafts includes:

- textile products are made by individuals or groups using their hands and supporting machinery. Creativity and power from the hand is central to the work.
- dyeing, weaving, knitting, and surface embellishment techniques are employed.
- evolving cultures and traditions contribute to the products’ distinctiveness and to their regional and international appeal.

- products are employed for everyday use as apparel and accessories and as interior furnishings.

Developing and maintaining a research program

First, it seems imperative that to develop and maintain a research program on a single topic for ten years, one must have passion about one’s work. Central to that passion is finding a fit between the researcher as a person and the methods employed for research. For me that has meant discovering that I am comfortable with and challenged by the inductive manner in which much field research and interviewing is conducted. While good inductive field research is guided by a conceptual framework and broadly defined research questions, what will evolve is often quite unknown at the outset. I find that uncertainty an exciting challenge and a condition on which I thrive.

Second, research sustainability has been closely linked to believing that my work has potential to make a difference in the quality of individuals’ lives. I am often asked, “How important is the handcraft sector in the world’s economies; for whom does this research make a difference?” In this era where university resources are highly competitive and outside research funding is hard to come by, we must clearly articulate how our research can make a difference. We must communicate these differences in language that is understandable to non-specialists in textiles and clothing.

A third factor is the absolutely central role that broad sharing of ideas among faculty and students about a wide range of topics plays for developing a research program. Also, regular participation in a broad range of conferences outside our discipline has been critical in providing new frameworks through which to view my work. The sharing of ideas across people and disciplines encourages tangential thinking that is critical for tackling complex topics with fresh ideas.

Finally, early in a research program I believe it is important to develop a working model that begins to acknowledge the potential complexity of variables or interrelationships for the behavior under study (See figure). Much of my effort has been devoted to studying individual parts of the system, one at a time. However, the question of how the parts might relate to a larger system of interrelationships is always there in the background. This approach is deeply rooted in an anthropological framework of culture as a system; understanding one part is closely linked to understanding other parts. When one part changes, other parts rarely remain static.
development at the system level was our exploration of the adaptability of ATO culture within an increasingly competitive marketplace. We identified seven challenges that we believe ATOs will face as they position themselves in this new, more competitive marketplace. For each challenge, a hypothesis has been generated, one of which is shown here:

Hypothesis for training programs: Training programs that incorporate culturally familiar teaching styles, while also encouraging artisans to experiment with design components for generating new products, will prepare producer groups for product development that meets changing consumer demand.

Common in all the retailer studies is the theme of creating linkages. In order for ATOs and other craft retailers to succeed, they will need to be highly skilled at brokering of ideas across different systems of thinking and behaving. For some retailers and consumers, a new way of doing business is evolving in which product meaning is created through linking consumers with the lives of artisans. Witness to this movement is MarketPlace Handwork of India’s “Global Dialogue” that encourages mail correspondence between customers and artisan producers. To link producers and consumers in this manner means understanding, attending to, and honoring the lives of people in vastly different cultures, a far more complex challenge than creating and marketing products to consumers within a single cultural context.

In summary, the grounded theory introduced in an earlier section has been generated using two different but complementary working strategies. The theme of “connections across different ways of thinking” was present in both 1) theory generation across a series of loosely linked studies of craft artisans, as well as in 2) the hypothesis that was tested and refined through sequential studies of craft consumers. Grounded theoretical propositions such as these can now be applied to continued study of retailers who play major roles as brokers across the craft marketing system.

Issues for theory development and sustaining a research program

Research in the mid 1990s calls for tackling complex problems within social and cultural systems. None of us alone has the background to carry out analysis at the individual, social, and cultural levels necessary for understanding the dynamics of these complex interactions. Multi-researcher, cross-disciplinary teams will be increasingly important for examining apparel design, production, marketing, and use from complex systemic perspectives and for bringing our research to the attention of the scholarly community more generally.

Research programs evolve in many ways. In my own experience, many times I feel like I am involved in too many divergent craft marketing studies, such that I question locating the connections. Several years ago I read a book that helped me appreciate the multiple ways that people approach their work. In *Composing a Life*, anthropologist Mary Catherine Bateson compares the lives of five highly successful women to the arts of improvisation. Improvisation involves “recombining partly familiar materials in new ways, often in ways especially sensitive to context, interaction, and response.” Bateson’s model of improvisation was particularly useful to me in valuing my own work and how I have gone about it. My point in bringing this up is to suggest that a variety of approaches, some more linear and some more improvisational, should enrich our end goal of understanding the system of apparel design, production, marketing, and use.

In this paper, I’ve described an inductive approach to scholarship which has drawn primarily on narrative data to understand the meaning that craft marketing holds for artisans, retailers, and consumers. This approach has worked well for the types of problems in which I am interested. However, I have also benefited from working with other researchers who are more deductive in their approaches, examine variables one at a time, and conduct their studies under controlled conditions. I believe each approach has much to offer the other. When we conceptualize our research as always “in progress” and open to new perspectives, rather than as finished and completely interpreted, I believe we position ourselves well to benefit from each other’s work.

Earlier I spoke about having passion for one’s work. For me that passion has evolved from staying very close to and engaged with the people I study. Nothing excites me more than getting into the “field” and listening to artisans, retailers, and consumers inform my understanding of their worlds. Truly, as researchers, along with retailers and consumers, we are in global dialogue with artisans for whom “their hands are our future.”

References


QST COMMEMORATIVE LECTURE

Darwin and the Cloth

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My intent in this paper is to consider what teachers/scholars in this organization, ITAA, can learn from “sightings,” in the literature of the conjoined topics of: Charles Darwin; some cloth; and an encounter between those aboard the English ship Beagle and the people of Tierra Del Fuego in 1832. I lead into this topic by following QST’s example and being commemorative: “calling to remembrance.”

First I will share some of my personal remembrances from the 1950s when I was a graduate student, and sometimes research assistant and instructor, at Michigan State University. I could spin tales about many people whom I met during this time; but I choose to talk about Irma Gross, Professor of Home Management, who introduced me to “puzzles” and “things.” I learned from her about the joys of puzzle-solving when I was guest at her apartment, and found that she placed the Sunday New York Times crossword puzzle, on an always-set-up card table, so that she could work on it during the week, or until she completed it. I learned about things during a faculty discussion, when she remarked in her quietly firm voice that a uniqueness of Home Economics is its concern with things. As I mulled over this idea, I realized that she had given me a new slant on a familiar topic; my own field of work, then called textiles and clothing. And, some forty years late, I remain imbued with the spirit of Irma Gross, and declare that puzzles and things are what have made my career sometimes entertaining, sometimes exciting, sometimes frustrating, but always interesting.

I will now move to remembrances from the 1960s, which were novel for me; for I finally lost my childhood. Watching it go was a slow, but not painful, experience. What disappeared was my rote-learned notion that the three needs of man are food, clothing, and shelter. Step by step I was relieved of this dogma. One segment went in the early 1960s, when I heard a professor say, over a local radio station, that clothing is a portable environment—hence shelter. Out with clothing! Food went with space travel and weight-control clinics, which stressed oxygen and nutrients as needs. Shelter was spirited away by anthropologists and physiologists (Newburgh, 1968) who decided Australian aborigines could survive cold temperatures without either clothing or shelter. Finally, in the late 1960s, man went, along with other sexist terms.

As I emerged from the ruins of my childhood, I again faced questions about how to conceptualize my field of study. As textiles and clothing? Or more broadly as textiles and apparel? Or yet more broadly, as textiles and dress? Or should I just leave the door pragmatically open to alternatives in terminology and remember that I was focusing on products of humanly conceived technologies—products that may or may not have utility, and may or may not enhance lives of makers or users.

As time went on, I realized that the loss of my childhood, was really no loss at all. It had set me free! Free to use the terms clothing, apparel, or dress according to which was most appropriate to the message I wished to convey. Free to solve new puzzles that come with integration of the dimension of history into my study of textiles and dress (Dress being my usual pragmatic choice of term for my work since the 1960s). And the history I have in mind is not a catalog of pictorial representations and written descriptions of textiles and dress, but a “history of ideas” associated with these cultural products. We who confront puzzles related to textiles and dress need to know about, and understand, the philosophical and scientific lore of the past in order to deal with that of the present. We cannot settle for vague ideas and statements, such as, “until recently” or “most scholars agree.”

Returning to remembrances from the 1950s, I share part of my adventure in re-reading chapters in a book that I had liked at that time. This book, Teacher in America, had as author, Jacques Barzun (1945), an historian and writer on a wide range of topics, who had a long career as teacher and administrator at Columbia University. The chapters I recalled were “How to Write and Be Read” and “How to Read and Be Right.” Some of his suggestions for the teacher/scholar belong with an earlier time. Others remain appropriate in the 1990s. Still thought-provoking, for example, are the following excerpts from his chapter “How to Write and Be Read”: 
"...Simple English is no one’s mother tongue. It has to be worked for" (p. 48); a writer should start with "...a plan or program... either in logically organized form, or pell-mell"—to be "disentangled" (p. 54); and "a tolerable paragraph must have gone through six or seven versions..." (pp. 59-60).

In his chapter, "How to Read and Be Right," Barzun continues with an idea that leads more directly to our consideration of Darwin and the cloth, as he warns against "...taking the contents of books as things in themselves, being "trusting to words as magic, failing to test them by life, or light them up with imagination—indeed, preferring hokum to truth" (p.63). This is a reminder I have taken seriously as I have tried to deal with Darwin and the Cloth, the "tiresome twosome" that I have kept meeting over the years as I have reviewed the equally tiresome, "theories of dress." We all know them: the so-called modesty, adornment, and protection theories (and all their kin). Let me say first that routine citing of these so-called theories places them in Barzun’s (1945) category of “cant phrases” (p. 56), reft of meaning as they are ritualistically repeated over and over. However, I also confess that they fall within the history of ideas, specifically with 19th century Euro-American concern with evidence, including descriptive information on dress, that could be integrated into elitist theories of social, cultural, and psychological evolution, sometimes called social Darwinism; and in theories of psychological evolution, as exemplified by psychoanalytic theory. In other words, theories of dress that focus on protection, modesty, and ornament are, to use evolutionists’ terms, "survivals," or "fossilized" cultural remains, caught in intellectual debris left over from the 19th century. They merit the elitist designation as they call for the application of the "social analogy," which infers that customs in human societies evolve in a manner similar to that of biological organisms, and that a scale exists for measuring social evolution from a lowest level of savagery to a highest level of civilization, exemplified by Western societies. When applied to dress, such theory proposes that nudity and ornament identity the savage, body coverage and general disdain for ornament, the civilized.

As I have continued to explore the history of ideas associated with types of dress through the years, I have noticed that about 1930 a minor sea change occurred in regard to type of book published on the topic of dress. Forthcoming at this general point in time was a spate of English-language books on dress that were different from most of their predecessors. Titles include: Hillaire Hiler’s From Nudity to Raiment (1979, reprinted from 1929); Elizabeth Hurlock’s The Psychology of Dress (1929), J. C. Flugel’s The Psychology of Clothes (1930), Paul Nystrom’s Economics of Fashion, (1928) and a reprint of Ernest Crawley’s 1912 essay on dress in Dress, Drinks, and Drums (1931). In these books, the authors, with the exception of Crawley, generally assume that discussions of adornment, protection, and modesty qualify as statements of theory regarding dress. Their difference, from previous books on dress, rests not with how they differ from each other in theoretical orientation, but with the mere fact that their authors do attempt to present, as their predecessors had not, a social theory of dress. Prior to this time, the typical book on dress contained mainly pictures and/or written descriptions of various types of contemporary or historic dress. Somewhat ironic is that these newer publications, which were promoting an evolutionist type of theory, appeared at a point in time when such theory was past its heyday within the social sciences.

I have several thoughts regarding what combination of events during this time inspired authors to move from occasional papers on dress, with viewpoints generally identifiable with the social sciences, to book-length works. Overall, I suspect that sharp changes in design of fashionable dress of Western women during the 1920s aroused curiosity among social observers, enough curiosity to inspire them to write books as responses. In general, these changes entailed reduction in bulkiness and unwieldiness of women’s dress and an exposure of body shape and surface, in ways unprecedented during the lives of people of that decade. This break with long-held customs regarding body coverage surely required considerable adjustment in Western moral codes regarding modesty in dress and demeanor. At the same time, certain socio-economic changes may have facilitated change in design as well as beliefs about modesty. For example, the relatively uncomplicated designs of the 1920s were more easily producible in multiple copies as ready-to-wear than their structurally more complicated predecessors—and were available at prices affordable to women within a wider span of socioeconomic levels. Thus, they were, in a sense, disposable, as new fashions competed with and replaced the old. In addition, the accessibility of more jobs for women, particularly in white collar jobs, may have made simplification of women’s dress occupationally correct. Hard to measure, but not to be underestimated during this time, was the impact on writers, and the general public, of psychoanalytic theory, particularly as set forth
in Flugel’s still influential book, *The Psychology of Clothes* (1930). This book, which falls within the evolutionary sphere of thought, remains in print in the 1990s; and writers in the popular press may still defer to Flugel as the ultimate authority on the social and psychological significance of dress.

Content of Table 1, “A Modest Variorum Darwin,” indicates that, since the late 1920s, a cadre of authors have continued to accede to evolutionary-based theories of dress; for protection and ornament “theories” lurk in all the quotations presented, except those from Darwin himself. In addition, authors of variant texts seem to invoke the name of Darwin to lend credence to their own interpretations of an event which Darwin recorded in his diary and later edited for publication. Further, authors’ elaborations beyond the content of Darwin’s original texts suggest that readers may well heed advice to test the truth of the printed word. They also encourage me to invoke the social analogy to explore how variant versions of Darwin’s texts (1832; 1839 & 1845)² exemplify natural selection—a process basic to Darwin’s theory. All I have to do to test this idea is consider: manuscripts as species of biological organisms, sentences as individual biological organisms, and sets of words as complex organs. Then, I can postulate that changes take place in a manuscript by a process of natural selection. In this process, variation in the content of a manuscript begins with a slight change in a set of words, which, if it succeeds in its struggle for survival, can pass the slight change to its offspring, that is, the sentences in manuscripts by yet other authors. After many generations, accumulations of innumerable slight variations in sets of words can result in a new manuscript, with more complex sentences, and sets of words than the original manuscript from which it derives.

Comparison of the variant texts with Darwin’s indicates that selection processes effected transformation of content of Darwin’s texts of the 1830s and 1840s. Thus, through time, authors have been generous in supplying their own interpretations of Darwin’s factual report. As first example, identification of who distributed the cloth changes from Darwin’s general “we” to only “Darwin.” Second, four authors reduce the “plural” recipients to “one.” Third, two authors add size to descriptions of the cloth: “large” in one, “good-sized” in another. Fourth, Treatment of the cloth varies from Darwin’s “placed” or “tied” to tearing or cutting into strips or pieces. Fifth, placement of cloth changes from Darwin’s “necks” to “legs,” “limbs,” “arms and legs,” in that order. Sixth all authors imply a rank ordering of motive for ornament—over protection—among the Fuegians. Seventh, authors also attribute personal reactions to Darwin—as surprised, astonished, pitying; and supply factors that motivated his supposed actions, e.g., nakedness, cold, melting snow on shoulders. One unsolved puzzle remains: Why do authors’ consistently use the word red, when scarlet is the word used in the most readily available of Darwin’s texts? Does an unidentified intermediate text exist? Whatever the case, on the basis of data at hand we can say that authors quoted in the variorum have produced new manuscripts to describe what happened to some cloth during a meeting of men from the ship Beagle and the Fuegians in 1832.

However, the transformations have taken place in a much shorter time span than the millions of years required for biological evolution.

In conclusion, let me say that I am sure that my encounters with Darwin and the cloth are not over. However, my experience so far leads me to encourage others to seek solutions for other puzzles related to the things called textiles and apparel: asking questions, remembering all the while that the printed word does not promise truth; working always toward an historically sound line of thought within which to try out ideas—never settling for a quick reference to Flugel—or an equivalent; welcoming the hard questions; and being forever mindful of Darwin and the cloth.

**Table 1: A Modest Variorum Darwin**

1832. Darwin. — Their [the Fuegians'] very attitudes were abject, & the expression distrustful, surprised & startled:— Having given them some red cloth, which they immediately placed round their necks, we became good friends (Keynes, 1988, p. 122).

1839 and 1845. Darwin. Their [the Fuegians'] very attitudes were abject, and the expression of their countenances distrustful, surprised, and startled. After we had presented them with some scarlet cloth, which they immediately tied around their necks, they became good friends ( 1839, p. 228; 1845, p. 205).

1908. Thomas. Darwin gave a shivering Fuegian a piece of red flannel, and was surprised to find that he had torn it in strips and made leg ornaments for himself and his wretched companions (p. 67).

1929. Hurlock. When Darwin gave a piece of red cloth to the Fuegians, he was astonished to see that they...
did not use it as a form of protection, but divided it into strips and bound it around their freezing limbs as ornament (p. 14).

1929. Hiler. Darwin gave a good-sized piece of red cloth to a Fuegian who, from our standpoint, was certainly in need of protective clothing; but, instead of using it for this purpose, the recipient tore it up into small pieces and distributed them amongst his companions who immediately employed them as ornaments... (p. 64).

1942. Durant. When Darwin, pitying the nakedness of the Fuegians, gave one of them a red cloth as a protection against the cold, the native tore it into strips, which he and his companions then used as ornaments... (p. 86).

1967. Adams. When Charles Darwin, on the voyage of the Beagle, visited the natives of Tierra del Fuego, who still lead a primitive life, there occurred a remarkable and significant incident that testifies strongly to the truth of the ornamentation theory. One native was given a large piece of red cloth which he could have used to wrap about himself at a time when snow was melting on his shoulders. But instead of so doing, he chose to cut it into small pieces and distributed these among his friends for the purpose of decoration (p. 20).

1968. Broby-Johansen. Darwin once gave a piece of red cloth to a member of a tribe in Tierra del Fuego because it was cold and the man wore no clothes. The man immediately tore the cloth into strips and handed them out to his friends who tied them round their arms and legs as adornment (p. 16).

1981. Storm. It seemed to Darwin that they must be cold; yet when he gave them some red cloth which he thought they would wrap around themselves for warmth, they tore it into red strips which they used for adornment (p. 43) (Reference made to Darwin’s The Voyage of the Beagle).

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RESULTS OF THE GLAMOUR MAGAZINE FASHION SURVEYS
(1994 AND 1984)

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Summary Description
The 1994 and 1984 Glamour magazine Fashion Surveys measured attitudes toward consumer behavior, retailing, and socio-psychological attitudes toward appearance. This Special Session provides an n-depth examination of the 1994 survey, highlighting the dramatic changes since 1984.

Overview
The 1994 and 1984 Glamour magazine Fashion Surveys are the largest socio-psychological and consumer behavior/retail purchasing surveys done to date. Only a small portion of the results have been reported in Glamour or through their marketing and fashion departments to Glamour advertisers and other industry representatives.

This Special Session provided an in-depth examination of the results of the 1994 survey, as well as a comparison with the 1984 results. Dramatic changes in Glamour readers' beliefs concerning the importance of dress, expensive apparel, keeping up with fashion, body image, and shopping patterns are reflected in retail sales and store patronage.

The survey respondents were self-selected Glamour magazine readers (1994: N=23,000, n=2026; 1984: N=13,000, n=2000). Respondents ranged in age from the teens through the seventies, although the mode was twenties to 40. Personal and household income ranged from under $9,999 through over $100,000. Occupations ranged from store clerks through professionals, and revealed a substantially large portion of women who wear uniforms to work who are not in the medical field.

Glamour magazine has a circulation of between 7-9 million women, plus a "pass-along" readership of 23 million. While not reflective of all women's attitudes towards clothing, shopping, and body image, Glamour readers (since Glamour readers are probably more likely to be interested in dress and appearance than women who do not read women's or fashion magazines), the readership still makes up a substantial percentage of women in the United States (and pre-test results for a "normal" sample indicate their responses are similar).

Much of the research conducted by academics today is by necessity limited to small sample sizes and/or convenient subjects (such as college students). This survey measured attitudes about dress, shopping, and body image of a much broader group of women.

Magazine Surveys
Magazine surveys have multiple purposes. Editorial staffs are genuinely interested in what their readers are thinking about. In addition, survey results can be used to supplement a magazine's own marketing research and to persuade potential advertisers that their product can be successfully advertised in that magazine. Surveys, or shortened versions of them, are often incorporated into magazine's "on-the-road" shows. Survey results can also be used as market research for new product development.

What all magazine surveys have in common is they must be entertaining enough that people will fill them out, and important enough to the readers that they will wish to participate enough to actually mail the completed survey by the deadline.

Turn-around times are very short. Typically, a monthly magazine is working about three months ahead of the publication date. Editors generally
want to publish the results as soon as possible, giving a researcher little time once the surveys arrive.

Frustrations are often the same as for any survey research—survey forms must be easy to read, questions must make sense to a variety of groups of people, there is a limit to how many questions you can ask before people get bored, possible false answers. Cultural sensitivity is necessary in order not to offend readers. Editors and senior management might have different perspectives regarding the questions to be included; changes in phrasing to make a second survey more up-to-date can also impact analysis.

In compiling the original 1984 Glamour Psychology of Fashion survey, over 250 survey questions were developed and pre-tested. Pre-testing was done on two groups, a variety of women in Connecticut, often considered a bell-weather state (college students, hairdressers, bartenders, waitresses, homemakers, shop owners, etc.) and a group of women who worked in the advertising department at Glamour. Respondents were asked to comment on the questions and add any issues they felt were missing. The 1984 instrument was then shortened to 148 questions/sub-questions. In 1994, Glamour decided to make the survey more consumer-behavior oriented; the instrument was modified by Glamour's in-house research firm.

In the 1980s, Glamour's editorial staff changed its policies on models used in editorials and the dieting information given in the magazine to a focus on health. They also attempted to convince their advertisers to also change. This was in response to both the 1982 Body Image Survey as well as the 1984 Psychology of Fashion Survey.

Results

The results indicated a major shift in attitudes since the 1980s—a significant decrease in the evaluation of the importance of dress and appearance and a resultant decrease in interest in shopping and status symbols. People are far less likely to shop at department stores and far more likely to shop at discount stores, such as Wal-mart or K-Mart.

One result which stayed the same--90% of respondents preferred themselves with their clothes on. One group in 1984 who preferred themselves with their clothes off were petites—with a consequent shift in the market to add petite lines.

Price and comfort, in each question applicable to them, are more important than they were in 1984. Business image seems to matter less, as does paying attention to fashion (although younger women tend to pay closer attention than older women). Body image concerns, or fear of fat, has increased significantly.

Results were analyzed utilizing frequencies, cross-tabulations, chi-square analysis, ANOVA, regression analysis, and factor analysis as appropriate to a specific question. Glamour has found that many of their readers continue to read Glamour well into their 40s; thus we also did a cohort analysis. Few of the changes in responses were related to increases in age—most seemed to be a reflection of changing economic and social circumstances.
Negotiations to develop the North American Free Trade Agreement (NAFTA) among the United States, Mexico and Canada were concluded on August 12, 1992 and it took effect in January, 1994. Widely varying viewpoints about NAFTA's impact have existed among labor groups (Ramey, 1992a), textile and apparel industry leaders (Aspin, 1992; McNamara, 1992), national and state leaders (Barrett, 1992; Foy, 1992; Ostroff, 1992a; Ostroff, 1992b), and international organizations (Landers, 1992). However, the potential change associated with the NAFTA is far-reaching and has tremendous positive commercial implications for textile and apparel production, distribution, and consumption.

First, NAFTA has produced a combined market of 560 million people that exceeds the EEC's market of 380 million people ("Thumbs up," 1992). U.S. apparel manufacturers and retailers will be able to expand into Mexican and Canadian markets which already are looking for U.S. apparel products and retail outlets (Abend; 1992; Ramey, 1992b; Watters, 1992). The same is true for Canadian and Mexican business expansion. Second, NAFTA encourages American offshore apparel manufacturers to relocate production strategically close to the U.S. rather than continue a heavy reliance on Far East contractors.

Impact of NAFTA on Texas

Mexico is Texas's largest market for goods and products (Foy, 1992) while Canada is its second largest market. Because of Texas's strategic location, centers for environmental monitoring, financial services, and labor relations related to NAFTA are being located in three of its major cities. Thus, Texas is taking leadership in moving NAFTA forward.

Texas Government Agencies

Texas leads the nation in cotton, wool and mohair production and it is a leading state in hide production. One of the foremost tasks of the Texas Department of Agriculture (TDA) is to promote Texas agriculture, including natural fibers and the textile, clothing and fashion industries. Naturally Texas is a comprehensive marketing campaign launched by the TDA to increase consumer awareness and demand for items made from Texas cotton, wool, mohair and leather. It encourages manufacturers and retailers to endorse products inspired by Texas' natural fibers. It is now working with Mexican textile businesses to produce fabrics from Texas fibers.

Texas Trade Organizations

The Dallas Market Center (DMC) - International Marketing Division exists because of NAFTA. DMC tenants, particularly in the International Apparel Mart, began requesting information about doing business with Mexico long before NAFTA was a reality. Many tenants expressed interest in expanding to Mexico, while others wanted to become involved in enticing Mexican buyers to shop the DMC.

The DMC has initiated several types of assistance in an effort to meet Dallas tenants' needs. In 1992 the first NAFTA Trade Show featured a seminar on "How to do Business with Foreign Manufacturers." Also, an entire exhibit area was devoted to international lines from Canada and Mexico.

Texas Business Organizations
The Dallas business community expects to gain about 75,000 of the 182,000 Texas jobs created by the NAFTA by the year 2003. The International Trade Resource Center (ITRC) of the Greater Dallas Chamber recently recommended a merger of all the Chamber's NAFTA, international business, and trade initiatives into one International Department. This should strengthen the ITRC's operations and better coordinate its activities with other international programs.

The ITRC offers trade counseling through a group of international trade experts. Also, finance counseling is available to introduce companies to banks, finance companies, or investors necessary to finance an export program. The ITRC Trade Finance area works closely with the Small Business Administration, the Export/Import Bank of the U.S., and the Federal Credit Insurance Association to secure as many financing sources as possible. Conferences and educational programs are offered regularly on a wide variety of international topics and trade issues. Dallas businesses have the opportunity to meet and link with foreign companies through the ITRC. The ITRC works to maximize trade development in Dallas.

Texas-Headquartered Retailers

Pier I Imports, headquartered in Fort Worth, Texas, is a specialty retail chain selling import goods such as decorative home furnishings, gifts, apparel, and related items. This retailer provides customers with unique and unusual merchandise from 44 different countries.

NAFTA has provided Pier I with an excellent opportunity for international market expansion into Mexico. Through a partnership with Sears de Mexico, considered an upscale department store chain in Mexico, Pier I has opened six boutiques inside Sears stores. By working with this established retailer, Pier I can fine-tune its merchandise mix for its customers.

Mexico Pier I stores are about 3,000 square feet, smaller than the average 8,000 square-foot U.S. store. Product lines cover all departments and categories, but in a smaller assortment mix. Personnel are nationals, a practice which Pier I views as important. Merchandise buying is done jointly with Sears. Visual merchandising is supervised and managerial meetings are conducted by U.S. Pier I Imports personnel.

Marketing advantages for Pier I opening stores in Mexico include proximity to the U.S.A., Mexican consumers' preference of U.S. goods, brand-consciousness, growing income level, and demand for better quality goods. Pier I Imports has faced several obstacles in opening stores in Mexico: lack of good roads and rail lines create transportation problems; language difference slow communication; and regulations such as cross-border documentation, product restrictions, and consumer product labeling cause delays in getting merchandise.

To be successful in the Mexico market, Pier I must understand different distribution channels, provide quality and uniqueness in merchandise which is fine-tuned to consumers' needs, and provide enjoyable shopping experiences. Successful marketing strategies can be achieved by working closely with staff nationals and through in-depth study of other retail units in Mexico.

J.C. Penney Company, a giant retailer headquartered in Plano, Texas, has annual sales greater than $100 million and 1,300 stores in the U.S. It plans to open its first Mexican store in an upscale shopping center in Monterrey in 1995. By the end of this decade, J.C. Penney plans to open 17 stores in cities such as Mexico City, Guadalajara, and Leon.

Mexico stores will average 165,000 square feet, this is comparable to J.C. Penney's largest U.S. stores. In Mexico stores the merchandising mix will be different from U.S. stores in terms of brands and product categories. J.C. Penney plans to issue credit cards in Mexico as well as offer a catalog. Sales at its Mexico stores are expected to far surpass its U.S. average of $137 a square foot. As an effort to succeed in Mexico's market, the company is conducting 12 to 24 month management training programs at its headquarters for Mexican nationals to become prospective
managers.

Although NAFTA is still a new trade concept, Texas businesses are taking positive steps to act rapidly on the opportunities it offers. NAFTA can benefit the consumers and businesses in all three participating nations.

References


A CHANGING GLOBAL TEXTILE AND APPAREL TRADE SCENARIO

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The world trading climate for textiles and apparel has changed tremendously in recent years. New trade relationships have emerged as trading blocs have formed in most regions of the world. Both geographic boundaries and trade barriers are less divisive than in the past. In short, the trade environment is quite different from that of a decade ago, and recent developments portend even greater changes in the future.

Changes in Global Trade Policies

For more than 30 years, the Multifiber Arrangement (MFA) and its predecessor agreements under the General Agreement on Tariffs and Trade (GATT) have "managed" a significant portion of world textile and apparel trade through a complex quota system. Exporting nations (generally the less developed countries) considered the MFA too restrictive on their products, and many domestic producers in the importing countries (for the most part, the more developed countries) thought the quota system to be ineffective in reducing adequately the flow of imports.

In 1986, the GATT launched a major round of trade talks, known as the Uruguay Round (UR), in an effort to reduce various forms of trade barriers that developed over the years. Because of the importance of the textile/apparel sector to most exporting nations, this group of countries established as a condition of their participating in the Round that steps would be taken to dismantle the MFA.

After seven years and many futile attempts to conclude negotiations, the Uruguay Round was finally agreed upon in December, 1993, and signed by GATT Contracting Parties in Morocco in April, 1994. The pact has been called the most sweeping trade liberalization accord in modern history.

The Uruguay Round agreement called for a 10-year phase-out of the MFA. Because the MFA represented a set of rules for textile trade that were contrary to GATT provisions for virtually all other trade, an end to the MFA means that after 10 years, trade for this sector will be "integrated" back under general trade rules. Under this plan, the volume of products under quotas will decrease in three stages as the GATT provisions take effect, slated at the time for July 1, 1995. This date was contingent upon the time required for Contracting Parties to secure approval of the Uruguay Round within their respective legislative bodies.

Once the Uruguay Round has been ratified by Contracting Parties, a new era in trade--and particularly textile and apparel trade--begins. At that time, the GATT will be replaced by the World Trade Organization (WTO). The WTO is expected to have more power to enforce trade rules and to bring new areas of the economy such as services into the world trading system. Trade-related aspects of intellectual property rights will be included, giving greater protection for copyrighted trademarks and logos used on textile and apparel products.

The MFA phase-out will affect world textile and apparel trade in three stages. Three changes will occur. Under each phase, (1) the quantity of products under quota will decrease, (2) the growth rate for quotas still in place will increase (this is called "growth on growth"), and (3) tariffs will decrease annually. At the end of 10 years, only tariffs will remain. Stages are as follows:

**Stage 1**: (1995). The U.S. and other importing countries must integrate product categories that account for at least 16% of the country's 1990
textile import volume. Quotas that remain will be allowed to grow at rates no less than 16% based on 1994 levels if the WTO takes effect on January 1, 1995 (or the 12 months preceding the start of WTO if this takes effect at a later date). Tariffs begin to decline on an annual basis.

Stage 2: (1998'). Importing countries must integrate quota categories that accounted for 17% of the country's 1990 import volume. Remaining quotas will be permitted to grow in each of the four years at rates which are at least 25% higher than under Stage 1.

Stage 3: (2002'). Importing countries must integrate another 18% based on the country's 1990 import volume. Remaining quotas will grow in each of the three years at rates at least 27% higher than in Stage 2. Tariff cuts continue.

No MFA (2005'). Textiles will be fully integrated into WTO policies for all sectors.

Since completion of the Uruguay Round, the textile and apparel producers in most countries have attempted to determine what the changes mean for their industries. The impact will be significant for both textile/apparel importing and exporting nations.

Although the textile and apparel industries are among the most globalized of all industries, the patterns of globalization are likely to change as the quota system is eliminated. For example, competition is likely to become even more intense as restraints are removed from some of the major exporting nations. In another scenario, as NICs such as Korea, Taiwan, Singapore, and Hong Kong invested in other Asian nations to avoid quota restraints, a number of poorer developing
nations are now engaged in production when they otherwise may not have been. If foreign investors decide to move production, because open quota is no longer an adequate incentive to retain manufacturing in remote areas, some of the poorest countries may be hurt most. Underdeveloped countries are often dependent on the investor nations for production and marketing expertise, and intermediate components, as well as the infusion of capital.

In the importing countries, a great deal of political activity has surrounded approval of the Uruguay Round by respective governments, as well as in relation to plans for the three-stage MFA quota-integration process. Non-quota items have been selected to satisfy much of the requirement for integration of quotas in the first stage, a ploy by which domestic industries are affected very little.

The completion of the Uruguay Round was a historic moment for global textile and apparel trade. In short, the rules of textile trade had been rewritten.

The North American Free Trade Agreement: Implications for Textiles and Apparel

Global competition is clearly driving the formation of trading blocs. The North American Free Trade Agreement (NAFTA), effective January 1994, creates a three-nation free trade area that will, in the case of textile products, phase-out most tariffs and border restrictions between Canada, the United States, and Mexico. This alliance exceeds the European Economic Community in population and economic scale. The 358 million people in North America create over $6 trillion in economic activity each year, more than 1.5 times the size of the European economy.

As seems to be the perennial case, special rules exist for textile products. In the now superseded Canada-U.S. Free Trade Agree- ment, textile products qualified for reduced duty rates if they met two-stage transformation tests, i.e., garments knit in Canada or the United States or constructed
Canadian production of fabrics and apparel will likely decrease due to less competitive wages and lower efficiency, although special niches may succeed. Finally, as several manufacturers attempting to export have complained, the red tape required to participate in so-called "free trade" is discouraging.

Shifting Patterns in Asia and the Asia-Pacific Region

The unprecedented economic growth recorded in East Asia between 1970 and 1990 caused many theorists of economic growth to toss some of their old favorites in the wastebasket and come up with new ones, even as forecasters reached for calculators and computers in attempts to figure out what might come next. The International Monetary Fund has predicted that fully half of the gross world product increase between 1990 and 2000 will occur in this region, as will, according to the World Bank, fully half of the growth in world trade between now and 2000. Japan's move to power and influence, achievements of the Newly Industrialized Countries (NICs) of Hong Kong, Korea, Taiwan, and Singapore, and events in China and Southeast Asia emphasize the extent of change in Asia and provide evidence of a number of associated benefits.

This rapid economic growth in East Asia was post-war (Japan and Hong Kong in the 1950s, Korea and Taiwan in the 1960s, followed by Singapore, Malaysia, Thailand, and Indonesia, and China), and concurrent with the development of the General Agreement on Tariffs and Trade (GATT). Because this growth was largely export-oriented, most of these Asian states were early members of GATT; they continue to voice commitment to GATT principles and maintain a visible presence in the organization. While this is not to say there is no protectionism in Asia, GATT's influence and the early international trade experiences of these countries are reflected in the favorable views taken by many Asian leaders...
toward domestic trade liberalization and the policies they have pushed that have resulted in more liberalized trade in their respective countries. This influence also seems apparent in Asia's approach to regional economic integration; "open regionalism," the term frequently used to identify this approach, seems to have grown out of a commitment to multilateralism.

Broadly, this paper will address trade policy issues; more narrowly, it will examine regional economic integration in East Asia and Asia-Pacific and ways these regional agreements have changed and are changing the global softgoods industries. Asian regional integration arrangements (RIAs) are seen largely as a response to challenges to Asia posed by changes in the world environment. Reasons for the recent popularity of RIAs will be discussed, as will their relationship to GATT and multilateralism. The Asian RIAs include a confusing array of acronyms such as ASEAN, AFTA, and EAEC. In addition, there are subregional arrangements such as the Shenzhen Free Trade Zone and the growth triangle concept, all relevant to textile trade and shifting textile production. Extra-regional groupings such as the European Union and the North American Free Trade Agreement also have affected East Asia, and pose both threats and opportunities to Asian textile production.

'Projected dates at the time of this writing.
The breadth of scholarship found in ITAA Publication #7 on aesthetics of textiles and clothing and its implications for future research and teaching led to this special topic session on aesthetics. The recently available publication includes 21 manuscripts by 27 contributors with such disciplinary backgrounds of textiles and clothing as anthropology, design, history, social psychology. Other contributors represented such fields as philosophy and marketing.

This publication on aesthetics covers topics such as the creative process, teaching design, aesthetic preference, technology and fabric hand. The aesthetic of Koreans, the Kalabari of Africa, as well as that of homosexuals and the postmodern student, is explored. Contributions to the special publication exemplify a variety of methods including visual analysis, grounded interpretation, introspective interpretation, and quantitative analysis.

The session's purposes were:
1. to encourage dialogue among members with different perspectives on aesthetics.
2. to address the conference theme of a future vision focused upon advancing aesthetics research and teaching.
3. to publicize the special publication on Aesthetics to the membership in a unique way that will encourage further research.

To meet these purposes three contributors who represent the spectrum of scholarship found in the publication presented a position on three areas: 1) creator/creative process, 2) object: form and meaning, and 3) appreciator/appreciation process. They discussed their respective contributions and future opportunities for their application to aesthetics research and teaching. Warner discussed how personal life experiences of

a creator, Remedios Varo, materialized in her paintings as images of the needlework arts. Bryant presented a framework for exploring the aesthetic dimensions of wearable art. O'Neal offered insight into the appreciator by proposing reasons for distinctive aesthetic preferences of African-Americans.

An open discussion ensued among the audience, the editors (DeLong, Fiore), the three panel members and other contributors to the special publication (Bye, Burns, Cerny, Eicher, Geum, Hegland, Hemmis, Henderson, Hillestad, Kato, Kimle, LaBat, Lennon, Lutz, Minshall, Rudd, Rutherford-Black). This discussion addressed advancing aesthetics in the field of textiles and clothing including integrative issues that arose during the review and publication processes.

This session presented a unique opportunity for participants to engage in a synthesizing dialogue. It was a turning point for aesthetics to be better understood in relationship to multidisciplinary theories.
Universities are focusing renewed attention on teaching activities and on the scholarship related to teaching. We are seeing an increasing recognition of the importance of teaching in university mission statements. These changes are translated into greater interest in and rewards for teaching. With these changes at the university level, we see renewed interest in teaching by individual faculty. As faculty perceive greater rewards for teaching, they put more effort into preparing for class and exploring alternate ways to help their students learn, comprehend, and apply course content. This special topic session focused on introducing and applying several alternate teaching styles, techniques to be used to increase student educational involvement, and methods used to assess student performance. In addition, resources were shared with participants.

Students are gaining experience with different nontraditional educational practices in grade, middle and high school. Hence, these students will expect approaches beyond the traditional lecture format in their college and university classes. As university educators, we need to be able to respond to these changing expectations. Employers demand greater retention of subject matter knowledge, yet we have all experienced the blank look on students' faces when we mention something learned in a prerequisite class. Employers also demand critical and analytical thinking skills. Lifelong education is expected with the rapid changes occurring in the workplace.

Unfortunately, most faculty have had no education or training in teaching. Our graduate degrees place emphasis on research methods and analysis, with the assumption that teaching requires no special preparation. Graduates of these programs who accept positions in colleges and universities have a large percentage of their appointment related to teaching. Unfortunately, they have received no training in teaching methods or evaluation. Thus, it is no surprise that faculty often use the same format for teaching that they experienced as students, often the traditional lecture format. Research has demonstrated that faculty teach in a manner that focuses on their learning style, even though faculty learning styles may not match student learning styles. Faculty see themselves as sources of knowledge and distributors of information. Innovative approaches to teaching and learning challenge traditional approaches. Additional research has shown that students learn better when they are actively involved in the learning process rather than when they are treated as passive recipients of information.

We focused primarily on interactive teaching techniques in this session. In interactive teaching, the instructor involves the student in developing and organizing the information, constructing a conceptual framework, and applying the information to realistic situations related to the material or the profession (McKeachie, 1994). Students are actively involved in constructing their knowledge and comprehension of the subject based on the manner in which they learn best.

Techniques that we explored included
- ways to focus on the teacher as a guide to knowledge or a constructor of knowledge rather than as the dispenser of knowledge,
- ways to increase knowledge retention rather than increase the amount of knowledge presented. This often requires selecting the material it is most critical for the student to learn, comprehend, and apply. Amount of material covered in a class may decrease, but retention of material should increase.
- ways to help students understand how they process and retain information and learn. Once students understand how they learn, they assume part of the responsibility for their education regardless of the manner in which their instructor for a specific class teaches the material.

Examples of specific practices that were discussed included:
- Mini-discussion break-out sessions during lecture that help students get involved with the lecture topic, keep attention focused, and minimize anxiety about speaking up in class, especially large lecture classes. These mini-discussion questions allow students to discuss issues in a small group. The results of the
discussion can be shared with the class either through faculty summaries or students summarizing what their group identified. Thus, student comments are shared with the rest of the class in a no-risk situation.

- Three minute writing exercises conducted during class present the following opportunities: a) provide immediate feedback to faculty in terms of major points from that class period or topic, b) identify issues or topics that students did not fully understand, c) give students an opportunity to work with sample exam or quiz questions, and d) provide students with an opportunity to write questions for exams and quizzes, indicate the correct answer and explain their reasoning.

- Student learning teams help each other learn subject matter (Johnson, Johnson, & Holubec, 1991). One learns best when one teaches. Students who work with learning teams tend to develop a better understanding of the subject matter, closer ties to the people within the group, and a better attitude toward their education.

- Examples of ways to use technology in the learning process included presentation software and subject matter specific menu-driven software (Davis, 1993). For example, presentation software can be used to: a) create a lecture outline, b) focus attention on important facts, c) capture and hold students attention, and d) add visual interest to the course. Subject matter specific software can be directed towards: a) preparing complex visuals for class use, b) preparing interactive programs for students to use out of the classroom setting or in special stations located in the classroom for laboratory classes, and c) for formal evaluations of student comprehension, understanding, and application of course content during class or as out-of-class assignments.

- We demonstrated some problems experienced in traditional lecture formats. For example, in a traditional 50 minute lecture format, the learning curve drops off rapidly after approximately 15 to 20 minutes. There are simple techniques that can be used to help keep the learning curve relatively high during the entire 50 minute class period (Bonwell & Eison, 1991). For example, the faculty member could lecture for 15 to 20 minutes, divide the class into small groups of three to four students to discuss an open-ended question related to the lecture for three to five minutes, select a few random groups to report their comments, and return to lecture. When two or three minutes of class remain, students could be asked to summarize in three sentences the focus of the lecture topic for the day. The learning curve would remain relatively high, most of the lecture content for the day would be covered, the faculty member would have immediate feedback twice related to understanding of content, and students would have been actively involved in the learning process. This technique is not dependent on the size of the class. It works equally well for both large and small classes. With large classes, the faculty member may find that they need to circulate around the classroom to minimize non-participation or discussion groups straying from the topic.

- Participants had an opportunity to explore several alternate teaching techniques to enable their students to more fully understand subject matter. Students generally have better retention rates and longer retention times when content is learned using these teaching methods. Participants also had some limited time to practice several of these techniques during the session. In addition, resources were available for participants to examine and handouts were distributed to participants so they would have some materials in hand to facilitate incorporation of these techniques into their classes. Some techniques could be incorporated immediately with little preparation. Other techniques would require more time to prepare materials for a class, to allow the faculty member to plan activities, and to prepare themselves to use these techniques. Most of these techniques and practices have application to all subject matter in textiles and clothing.

Resources:


This panel was an exploration of how members of ITAA perceive their relationship to feminism. Perhaps a better term would be "feminisms" reflected in the diversity of viewpoints represented. Recent papers in ITAA Special Publication #4 (Michelman and Kaiser), proposing a "meaningful alliance" with feminists, the formation of an ITAA feminist special interest group, and a growing body of research within textiles and clothing utilizing a critical science perspective indicates the expanding need to explore our relationship with women's studies: past, present, and particularly in the future.

Panel members explored the following questions from their own perspective: How do we define feminism? How do we see our relationship to departments of women's studies within the academy? What does it mean to teach from a feminist perspective? What do feminist theories contribute to our teaching and research? How does a feminist perspective relate to issues of the "glass ceiling" within the retail industry? How does a feminist perspective influence the way we "do" scholarship? That is, how does a feminist philosophy of science influence a scholar's selection of topics for study, methodological approaches, and modes of analysis or interpretation? How do members of ITAA perceive feminism dovetailing with issues of race, class and gender?

Susan Kaiser discussed the focus on feminist standpoints in the context of inquiry in the implementation of theory development, research methodological stances and our work in design. She emphasized that in research we should be working towards moving away from an "us" versus "them" dichotomy, avoiding the approach of "we the researchers" versus the "people we study". In ITAA, we can make advances by linking theory an practice, being holistic and interdisciplinary in our thinking, and defying boundaries, including the mind/body dichotomy. The aesthetic/political dichotomy is particularly relevant to our field, because the visual world is political. She advocated examining our subjective experience by acknowledging the fragmented nature of reality, particularly the non-linear process of development experienced by many women.

Linda Boynton Arthur addressed the issue of how the feminist perspective affects scholarship. The feminist perspective provides a critically important link between dress and social issues of great import to society. By and through investigation of these issues, we can provoke significant discussions between our field and other social sciences. Linda advocated infiltrating the other disciplines in order to move our field from the periphery toward the center of the social sciences. Scholarship must focus on issues that have an impact in order to be meaningful to the academy. Linda felt that textiles and clothing scholars were marginalized because of this issue. An area where she felt we might have great impact in the academy is examining issues of appearance and the way they impact on society. Linda also
suggested that we examine the marginalization of men in our programs and course content. For example, how many design departments have equal numbers of male and female dress forms? How many costume courses focus on women's dress to the exclusion of male apparel? Feminist theories can illuminate our research, especially as they focus on social control, the cultural control of sexuality, and the intersection of social control and gender in idealized images.

Anthony Freitas focused his comments on issues of race and class as they intersect with issues of gender. Recent actions by "established" feminism have encouraged a broader dialogue on these issues. In ITAA, Tony felt that we still favor "whiteness" and "middle-classness" as goals in teaching and research. The current multicultural discourse in ITAA seems to allow those from diverse ethnic perspectives the ability to enjoy what ITAA has created, rather than restructuring the organization to meet their needs or desires.

Tony questioned ITAA's link to the textile and apparel industry, particularly as that production affects women and particularly women of color. He questioned why ITAA often invites manufacturers and retailers, frequently wealthy white men, to speak at our conferences, instead of union leaders or mill workers?

Pat Warner is a costume historian whose work encompasses the study of the stereotypes codified by appearance and dress throughout history. As such, she felt it was very difficult not to look at her field from a feminist perspective. For example, one seminar course she teaches on "Images of Women", examines stereotyping of women and the 200 years of historic precedences that have informed the present-day stereotypes we live with. It includes not only the strength and force of the current media but the historic building of that pressure, begun in the late 18th century.

Pat's research interests and professional writing have been through a feminist lens. She has examined women's struggles to achieve status in realms that had been closed to them; often that achievement, when it finally came, was visible because of a new form of clothing that allowed it to happen.

Pat feels that she has never embraced the "party line" of feminism. Because of this, she has frequently felt remote from Women's Studies academics. She also feels remote from the women who define the word as having a strongly sexual connotation, as lesbianism is a major factor in feminism. She deplores the militancy and current stereotypes that turn heads in any group of feminist scholars. In conclusion, although she considers herself a feminist, she felt her position to be outside both the "left-wing card-carrying" feminists and the "right-wing ITAAers". She has learned much from the feminist movement and has profited from the wisdom of others as it has grown and views herself as "quiet, but stubbornly persistent".

Joanne Eicher spoke on the topic of mentoring students, both undergraduate and graduate. Her first concern was in the area of advising, encouraging students through personal contact to consider opportunities they may not have thought about, such as graduate school or travel abroad. Joanne pointed out that there has not been a strong mentoring system in the female culture, while men have historically mentored through formal and informal channels such as "the old boys network".

Her second observation concerned the establishment of what Joanne has termed "group advising", particularly for graduate students who need a "dry run" for an oral presentation. It helps students understand that the critiquing process is normal. In a group situation, students become aware that they are not being singled out, but rather, it is part of a collective process, i.e., they begin to appreciate others as reviewers.

Joanne addressed the issue of the hierarchical nature of mentoring, raising the question of when a graduate student becomes a colleague? She used the example of encouraging grant writing skills, addressed through a reciprocal process of allowing graduate students to edit faculty work. Mentoring junior faculty by senior faculty occurs with one-on-one experiences, discussion, suggestion, and interaction. Joanne felt that the mentoring process
is one that helps develop professionalism.

Kim Miller focused her discussion on her experience at a recent summer workshop at the University of Kentucky for faculty interested in teaching women's studies courses. The purpose of the seminar was to develop the curriculum for a new Graduate Certificate in Women's Studies. In preparation for the seminar, faculty were asked to submit two readings for consideration. Kim found few articles in clothing and textiles literature that could be labeled "feminist scholarship". The need to publish articles that clearly are from a feminist perspective became evident.

One of Kim's concerns addressed the issue of her perceptions of that the area of textiles and clothing had been marginalized not only within the academy, but also within the area of women's studies. She envisions the future more brightly, as she continues to increase her contact with women's studies faculty in committee work and addresses general curriculum issues.

The discussant was Karen Louis, Assistant Dean for Academic Affairs in the College of Education, University of Minnesota. she commented that most of the panel members discussed feminism as a personal perspective that was closely intertwined with scholarship. Karen suggested that a more theoretical orientation to praxis/research would be helpful.

Karen also suggested that feminism as "gender study" in textiles and clothing did not have the same meaning as within a male dominated field such as sociology or medicine. Feminism is a "subset" of a larger body of critical theory addressing issues of race and class. She commented that feminism was defined by the panel as a political tool. On one hand, it was described as a tool that would open up and on the other, one to exclude. Karen felt that both perspectives were correctly perceived, but that in order for feminism to survive, it could not exclude other disciplines within the academy. She addressed the issue of "low-status fields" such as textiles and clothing. All groups that address issues of women and children fall into this category. As women's studies strives to become a "respectable" discipline, may favor theory over practice and defer to the higher status disciplines minimizing connections to the lower status disciplines, such as textiles and clothing. Karen felt this was a terrible contradiction and is rarely addressed.

Karen addressed the issue of mentoring. She felt that students needed "technical mentoring" or really learning how to do the discipline right. "Career survival mentoring" introduces people to the politics of the discipline, helping junior faculty fit into academia. Feminist leadership skills were also stressed by Karen. She suggested further research in this area.
PHOTOGRAPHY CONCERNS FOR DESIGN COMPETITION ENTRIES

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Rob Hillestad, University of Nebraska
Jo Kallal, University of Delaware
Traci May-Plumlee, University of North Carolina
Babe O'Sullivan, Oregon State University

The panel of several faculty and student designers, a former juror and a photographer discussed the topic of photography concerns, problems, and solutions for student and faculty entries for juried competitions.

Discussion focused on: How to locate qualified photographers, photo studio needs, ways to provide low-cost photography for students, faculty involvement in the photography of student entries, how to select and present the "best" slides for entry.

Related to these concerns the issue of judging the quality of work from slide entries was discussed.
ECONOMIC INTEGRATION OF THE ASIAN PACIFIC RIM COUNTRIES IN THE GLOBAL MARKETPLACE ... CHALLENGES FOR DEVELOPING CONSUMER MARKETS TO MEET THE NEEDS AND DESIRES OF A MULTI-ETHNIC POPULATION

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The Asian Pacific Rim countries, including Japan, China, South Korea, Taiwan, Hong Kong, Singapore, Malaysia, Thailand and Vietnam, are developing at an accelerating rate in the economic, political and educational sectors. Dramatic changes have transformed this diverse and vibrant region from an impoverished basket case to an economic power house in just one generation. No part of the world has grown faster in the last quarter century, and this trend is still continuing. It's growing every year. What has caused this dramatic change? High domestic savings rate; universal basic education; rapid growth in agricultural output and productivity; and effective governments.

The area's growth will continue with or without U.S. business participation. During the coming decade, Asia will represent the single best opportunity to generate new trade, new investment and all the jobs that come with that.

Though the economies of these countries were initially built on cheap labor, today they are turning to high-end computers and other complex tasks at which the United States and Japan were dominant. Today these apparel producers are evolving into full manufacturers, in the process assuming more visible roles in developing products and responding to market needs throughout the world. An increase in the standard of living has resulted in expensive labor and the emergence of a large pool of consumers. These countries have now become key players in the international apparel industry. Their former competitors and suppliers of their sourcing needs have become their marketing competitors and, in some cases, their partners.

The challenge to Americans is as much diplomatic as it is economic. Asia's economic surge creates new, politically explosive political relations, in a part of the world where U.S. fought its last three major wars.

The common ground of language, culture and a pervasive desire to "get rich" is knitting together China, Taiwan, Hong Kong, Singapore and ethnic Chinese minorities throughout Southeast Asia in a way that political leaders only a decade ago could not have imagined possible.

During all these changes is the spectacular growth of Asia's economies outside Japan. China is growing at nearly 13 percent this year, and most economists predict it will settle down to a 10 percent growth in the coming decade.

Growth rates throughout Southeast Asia are nearly as high, including Vietnam, which is predicted to become the next Asian economy to take off. Thailand had a 7.4 percent growth last year, Malaysia a 8 percent growth, and Indonesia a 5.8 percent growth. The so-called Dragons, the newly industrialized economies in South Korea, Taiwan, Hong Kong, Singapore have now settled to a more manageable 5 to 7 percent growth range. Per-capita incomes in Taiwan and Singapore already surpass many European countries.

A recent survey of the region outlined the real potential. By the end of this decade, East Asia (including China's coastal provinces) will have about 400 million consumers with enough money to buy cars, motorscooters, refrigerators, air conditioners, and cellular phones. This is a much bigger market than the U.S. and one that U.S. businesses cannot ignore.
Methods Used for Developing Markets in Asian Countries

Some strategic ways to enter this market are joint ventures, licensing agreements, building production facilities in those countries, conducting extensive market research, developing strong partnerships with local agents, learning the language with a view to developing close relationships, being sensitive to the diverse cultural views and mannerisms, utilizing different sets of marketing techniques effective in these countries, orienting product design, product promotion, product packaging and realigning these with the country's cultural beliefs and patterns, and most of all becoming well versed with the country's cultural, social, political, economic and legal systems. Due to expanding global communications and travel among North America, Europe, and the Pacific Rim countries, consumers in these countries are well-educated, well-traveled, and have been exposed to various types of media. These sophisticated consumers are demanding latest fashions in their clothing styles and have developed a huge appetite for brand label merchandise.

American businesses can no longer ignore these growing markets and need to be proactive and develop products which are oriented to the tastes, lifestyles, needs and desires of a diverse and multi-ethnic population and refrain from imposing American styles and preferences abroad.

Marjorie Wall has outlined comments about future market opportunities in China and Hong Kong. Sara Douglas has provided insights about marketing in Southeast Asia, and Ruth Shelton has focused on the importance of Hong Kong and its strategic location as an economic and service center for the future.

CHINA AND HONG KONG: FUTURE MARKET OPPORTUNITIES
Marjorie Wall
University of Guelph
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China is a huge country in both area (3.5 million square miles) and population (1.16 billion - 1/5 of the world's population). Although it is the seat of earliest civilization, its governments and economy during the 20th century have not yet achieved prosperity for its people. However, this is rapidly changing. While official statistics report the GDP at $370 per capita in 1993, American market researchers have estimated the true GDP to be above $1000 - a level that the International Monetary Fund reports as allowing consumer markets to start to take off. Economic growth has been substantial over the past three years and is predicted to exceed 10% annually over the next decade.

Hong Kong presents a very different economic picture. Its population of 6 million, crammed into 400 square miles (including islands and mainland holdings), has a GDP of $15,700 per capita. Hong Kong has been a British holding since 1898 but will revert back to China in 1997. It has been termed the "gateway to China" as it has one of the world's best deep water harbours, and is an important world center for banking and commerce. While China has not had a free market economy, it is predicted that much of Hong Kong's free enterprise will be maintained after integration and Hong Kong island will become the New York and Wall Street of China. Hong Kong is the world's number one exporter of apparel (over $17 billion in 1993) and China is number two (over $12 billion). Hong Kong is a major importer of apparel (over $8 billion). Hong Kong and China are currently each others biggest trading partners and biggest investors. Most Hong Kongers are immigrants or descendants of Chinese. At the same time they are very astute and aggressive at business and are keen to enter joint ventures with Chinese and foreign business.

Various U.S. companies are already entering
the Chinese market in anticipation of tremendous growth opportunities. Examples include Avon, Coca Cola, Nike and Levi. Chinese consumers, particularly those in fast growing urban centers such as Guangzhou, Chengdu, Shanghai and Shenzhen, are keenly interested in Americanized products. Opportunities exist to enter joint ventures where products are made both in China and imported from the U.S. as a means of achieving realistic price points for the market. Highly mechanized production such as T-shirts, jeans etc. can be efficiently produced in the U.S. while highly labor intensive garments can be produced in China.

All aspects of entering the market are not simple. U.S. trade relations have been strained with China due to complaints about transshipment and human rights violations. However, MFN status was renewed for 1995. Tensions have developed between China and Hong Kong over the issues of democratic government, laws, borders and the development of new infrastructure (e.g. new airport) before the Chinese takeover in 1997. Finally, American investors need to be very cognizant of Chinese business practice which makes "guanxi" or the development of personal connections, friendships, obligations and the giving of gifts very important to cultivating business deals. China and Hong Kong promise to be challenging, exciting but rewarding markets as we enter the 21st century.

ECONOMIC AND CULTURAL CONSIDERATIONS IN SOUTHEAST ASIAN CONSUMER MARKETS
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Leaders of some world corporations today explain their global strategy as being geocentric in orientation; their approach is based on the assumption that markets around the world consist of both similarities and differences, and that it is possible to create global strategies that recognize similarities and take advantage of them, while at the same time recognizing differences and responding to them. This sounds sensible; however, even factors recognized as similarities often pose challenges that global corporations overlook or choose not to address. This presentation examines economic and cultural factors important to marketing in Southeast Asia.

The Association of Southeast Asian Nations (ASEAN) that includes Malaysia, Indonesia, Thailand, the Philippines, Singapore, and Brunei, has a combined population larger than that of the U.S. The size of the potential market that exists in this part of Asia alone is larger than the European Union, and economic growth in this region is outperforming most other regions of the world, including North Asia. Demand for goods will increase less quickly than supply because purchasing power, while growing, is growing at a slower pace. Trade between ASEAN countries and the U.S. is heavy; in textiles and apparel, for example, of the top 10 apparel suppliers and the top ten textile suppliers to the U.S., seven in each category are Asian countries.

As is true worldwide, within Asean the industry chases low-cost labor. Wage rates are high in Malaysia and Singapore, climbing rapidly in Thailand, and low in Indonesia and the Philippines. Singapore is the regional leader for textiles in terms of infrastructure and provision of services such as marketing, warehousing, and transshipment. Malaysia currently is producing high-end, design-intensive products. In Thailand, the industry is lagging somewhat; because of rising wage rates, Thai manufacturers increasingly are using Vietnamese labor. Indonesia, like Thailand, produces may low-end and standardized products, and, in addition, contractors there produce for well-known global companies. Malaysia, Thailand, and Indonesia also are strong in petrochemicals and production of manufactured fibers.

Finally, this presentation discusses the "consumer culture" that has been created largely by advertising in the U.S. and the concerns that have been expressed, especially in Indonesia and
Malaysia, regarding negative aspects of that culture that are imposed abroad, often by people in multinational advertising agencies who too often misinterpret international cultural "similarities." This is approached by discussing communication styles and value differences. It is conducted that insensitivity to indigenous cultures by marketers can result in increasing government regulation and problems for both marketers and consumers in host countries.
CULTURAL RESEARCH AS A PREREQUISITE FOR GLOBAL FASHION MARKETING SUCCESS

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Objectives: Because of international marketing activities, considering cultural influences on purchase behavior is necessary. This activity allowed upper-level, undergraduate students in a social psychology of clothing course to understand the interrelationship between clothing and culture, conduct qualitative market research, recognize the linkages between educational objectives and application, and present research findings.

Documentation of Need: Currently, most international marketing investigations by fashion students are performed in international marketing or textile and apparel economics courses where projects focus on economics and business and fail to allow students to perceive the influence that culture has for successful designing and merchandising. Thus, a project allowing students to understand the relationship between culture and fashion apparel is valid.

Project/Material Design: Each student researched a culture that could be marketed to by a U.S. fashion industry organization including cultures existing in the U.S. In written report form, students discussed the culture, how clothing was interrelated with the culture, how U.S. apparel designers or retailers could market to the culture in terms of specific apparel characteristics, and what fashion goods could be successfully marketed to the culture. Findings were presented to the class.

Effectiveness of Activity: Students provided reports which included indepth analyses and information. Thus, the class learned about the interrelationships between clothing and cultures and were also exposed to a wealth of general information about many cultures. The project will continue to be included in an undergraduate social psychology of clothing course.

PERSONALIZING SOCIAL/PSYCHOLOGICAL CONCEPTS VIA STUDENT LETTERS

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In large undergraduate courses in the social/psychology of dress there may exist a feeling of remoteness on the part of students. It may be interesting to discuss the effects of cultural context on appearance behaviors, or examine social stigma based on appearance, or consider social comparison and resulting self-evaluations of appearance. Yet, listening to lectures, viewing numerous slides, and occasionally verbalizing a feeling or observation may leave the student feeling somewhat like an observer. A letter-writing campaign, similar to keeping a journal, proved successful in personalizing the subject-matter.

An introductory get-acquainted letter focused on early memories of the students’ awareness of appearance and its significance to others, as well as current observations about the importance of appearance to themselves or others. Another letter focused on social stigma that students had experienced or that they had seen among family or friends. Another letter examined special needs populations, through which they “tried on” that role. They described how daily functioning would be affected both physically and psychosocially, and suggested apparel items or adaptations that could alleviate problems. Populations included people confined to a wheelchair or bed, stroke survivors, those with neuro-muscular degeneration or cardiovascular impairment, arthritic individuals, the vision impaired, incontinent individuals, and women who have had mastectomies.

Evaluations were quite positive, revealing that students found the subject matter more compelling and personalized.
Nearly 600,000 Americans develop skin cancer yearly and NC residents are at risk due to the state's high incidence of outdoor occupations—agriculture, recreation, military, fishing, construction. The National Institutes of Health (1989) Consensus Statement states "Data exist to suggest that 50 percent of an individual's total lifetime UVR exposure occurs by 18 years of age." (p. 6).

To target the "at-risk" youth population, a packaged seven lesson curriculum, "Sun Time, Fun Time" using the TRY (Teens Reaching Youth) model was developed. The TRY concept uses older youth as teachers to reach preteen audiences. This approach provides two sets of learning opportunities: 1) for older youth as they prepare to teach, and 2) for preteens reached by trained teen teachers.

Objectives of the packaged curriculum are to have youth

* increase awareness of the health effects of prolonged sun exposure, and
* practice personal care and clothing behaviors to prevent sun damage to the skin.

The curriculum consists of a series of leader lessons, activity sheets, support resources and project kits. Concepts include personal care, and the role of clothing, textiles and accessories for sun protection using age appropriate activities. The curriculum was introduced at the Annual State 4-H Clothing Camp to youth and adult volunteer leaders for their feedback, then refined for statewide distribution.

Evaluation criteria for the strategy include number of counties adopting program, number of older youth recruited and trained, and number of preteens completing one or more learning activities. Evaluation of content is through reports solicited from agents, volunteer leaders and older youth.

Reference:
Middle-aged individuals experience a variety of life changes involving multiple roles. Non-traditional students returning to school or enrolling for the first time after age 30 frequently hold two or more major life roles while also managing the student role (Chartrand, 1990). In addition, these students must adapt to a role setting in which they are in an age minority group.

The purpose of the present study was to explore the contribution of appearance to the adaptation of non-traditional students to a university environment. Hypotheses were: 1) students satisfied with their student role would be more satisfied with appearance; 2) newer non-traditional students adjusting to role transition would be more dissatisfied with appearance; 3) high levels of stress in the student role would be related to greater concern with appearance.

Pretested questionnaires were mailed to two random samples of undergraduate and graduate students in fall and spring semesters at a large midwest university. Mailings resulted in 60% and 65% response rates and a total sample of 436. The instrument addressed life roles, student status, and study and commute hours; it included self-report measures of student role satisfaction, attitudes toward appearance, and state-trait anxiety. Analyses included principal components, ANOVA, correlation, regression, and discriminant analysis.

None of the hypotheses were strongly supported. Satisfaction in the student role only weakly correlated with appearance satisfaction (r=.24, p<.0005) and positive feelings about the self (r=.29, p<.0001). Male students were more satisfied with appearance than were female students (p=.004). Older students were similar to younger middle-aged students in attitudes toward student role appearance. Multivariate analyses of stress, anxiety, role satisfaction, size of role cluster, and appearance concerns were explored.


Clothing communicates information about the wearer and is used by perceivers to form impressions about the wearer's personal characteristics. Previous research revealed that high school students perceived well-dressed instructors as more authoritarian and intelligent, while the casually-dressed instructors were perceived as approachable and accepting of students but less knowledgeable (Butler & Roesel, 1989). The purpose of the study was to survey college students with regard to perceptions of instructor characteristics based on clothing style (well-dressed vs. casual-dress).

Participants were university students (N = 513) in the southeast and the northwest. Students were asked to rate their perceptions by questionnaire on a 5-point scale ranging from strongly agree to strongly disagree. Paired T-tests and one-way analyses of variance were employed.

Students (92%) indicated they noticed how instructors were dressed, with the mean score for female students significantly higher than for male students (p < .0001). Instructors perceived by students as well-dressed received significantly higher ratings (p < .05) with regard to higher expectations of students, better vocabulary, stricter class policies, more difficult exams, more formal class atmosphere, greater punctuality, and greater preparedness for class. Casually-dressed professors rated significantly higher (p < .05) in student class attendance, caring about students, and enjoyment of the class by the student. There were no significant differences noted for students' perceptions of professors' knowledge based on clothing style.

Three primary findings were that: (1) students in two universities significantly differed on their perceptions of instructors based on dress; (2) students' sex was a significant factor in perceived instructor characteristics; and (3) instructor dress did not influence students' perceptions of instructor knowledge. The latter finding is contradictory to previous research (Butler & Roesel, 1989) in which students' perceived well-dressed instructors as more knowledgeable than casually-dressed instructors. Further research should be conducted to examine university and gender differences related to dress and perceived instructor characteristics.

GROUP STUDIES IN SMALL BUSINESS
APPAREL RETAILING: OPPORTUNITIES FOR
EDUCATIONAL AND PRACTITIONER
INTERACTION

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Interest in small business education has increased across the country and members of the academic community have been challenged to develop courses and innovative classroom experiences that can effectively stimulate and educate students interested in pursuing small business oriented careers. With this goal in mind, students in a Small Business Apparel Retail Management course were given an opportunity to interact with area small business retail practitioners to experience the challenges of developing an effective promotional strategy for an existing small business retail operation.

Project completion required multiple interviews and meetings with the owner/manager of the business establishments; multiple store site visits; an understanding of area target markets and possible media alternatives; knowledge of existing literature and research studies related to the topic of promotion; and the integration of insight and experience from class members.

Specific steps in completing the Promotional Strategy Project included: a) an appraisal of the past and current promotional strategies used by the targeted retailers; b) an analysis of the target market and trade area; c) an identification of promotional objectives in quantitative and qualitative terms; d) the develop of a promotional budget using an appropriate budget method e) a review of the media alternatives in the area; f) the selection of promotional media; g) the development of message content; h) the identification of other appropriate forms of promotion i) and the determination as to how promotional strategy results would be measured.

Follow-up contact with the business owners suggest that the project outcomes were determined to be creative, innovative, and thought-provoking.

DIRECT RESPONSE ACTIVWEAR CATALOG
- STUDENTS AS MARKETERS

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The purpose of the apparel direct response project was to have students utilize fashion catalog development and target marketing strategies to execute a business-to-business and a consumer catalog for a small activewear manufacturer. In a presentation at the beginning of the year, the general manager informed students of corporate goals and requested their assistance with this assignment.

The project itself was two-fold. For the first part students revised the currently used business-to-business catalog. The goal was to upgrade the look of the catalog used by the manufacturer representatives. The total number of merchandise items was not changed at the request of the manager. Students submitted a dummy catalog and accompanying paper indicating the rationale for changes.

For the second part, students produced a small, "prospecting" consumer catalog. To do this, teams needed to select a small, sub-target group who would be likely to purchase the merchandise. Only five merchandise items were selected for inclusion in this mini-catalog. In theory, if the catalog would be successful, it would be "rolled-out" to a larger direct response audience.

For this portion, students needed to determine consumer audience size, how names and addresses would be obtained, and what type of marketing appeal would be best. A catalog mock-up and paper were submitted.

Students also needed to determine the overall budget. For example, if a team wanted to include an "800" number, the cost of it needed to be researched.

Once catalog mailing dates were determined hypothetically, students needed to plan enough time to produce and mail the catalogs. A time flow-chart and accompanying explanation were included in the final paper and presentation.

A corporate management team evaluated student presentations, and awarded cash prizes to student teams placing first, second and third in both the business-to-business and consumer catalog categories.

These techniques could be transferred to other small apparel manufacturers wanting to either upgrade their business-to-business catalog or start a consumer catalog.
THE COLOR RESUME AS A TOOL FOR ATTRACTION POSITIVE EMPLOYER ATTENTION

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The quality of a student's resume is generally accepted as one indicator of whether that student will be considered a candidate for a job interview. Traditional resume format requires a neatly typed page describing career goals and credentials. However, with tight job markets and potentially high numbers of applications for limited numbers of positions, the appearance of the resume assumes greater importance in attracting the employer's attention. One assignment in the advanced CAD class at CMU is the creation of a color resume. The purpose of the color resume is 1) to provide a way to differentiate that resume from competing resumes and attract positive attention, 2) to display the creative skills of the student, and 3) to accent CAD expertise. This resume is of a folded design with traditional text format on the inside and on the outside a computer generated image of some aspect of the apparel design or merchandising industry. Examples of these images have included textile prints, geometric designs, or fashion silhouettes with a variety of texture mapping details. Over the period of 3 semesters that this assignment has been required, the resumes have become increasingly innovative and more diverse.

Most students completing this assignment have been preparing for careers in apparel design or production and have sent their resumes to employers in these areas. Feedback from employers is overwhelmingly positive. They report that these resumes are visually appealing, stand out from more traditional types and stimulate interest in knowing more about the applicant. In addition, employers in companies where CAD is a key component in the design process report that the color resume is a good way to show computer skills prior to seeing any portfolio. The resume frequently determines if the student will be contacted for an interview.

The emphasis in this assignment has on the graphic development of the cover image. Future considerations will place attention on development of professional yet unique formats for the credentials area, including the placement of graphics in this area as well.

APPAREL FIELD STUDY: EXPLORING THE BIG APPLE

Young Im
University of Southwestern Louisiana

New York city has been the capital of the U.S. fashion industry since the late 1800s where clothing workshops transformed into a modern fashion industry. The HUMR 302 APPAREL FIELD STUDY was developed to study various segments of the apparel industry in the Garment District. Students enrolled in the course are expected to gain a more comprehensive understanding of the operations and activities of the textiles and apparel industries. It is a junior-level three-credit course consisting of weekly class lectures and a 7-day field trip to the New York fashion Industry.

The HUMR 302 APPAREL FIELD STUDY is unique in that the whole trip is planned by participating students. The instructor organizes and makes a preliminary outline for the whole trip and then assigns each student to contact and arrange a business appointment. Since its first trial in 1991, this method has proven to be very effective in the following ways: (a) decreased total trip expenses relative to a travel agency planned trip (approximately $200 less per student); (b) increased flexibility in choosing businesses to visit, seminar schedule and length, & contents of seminars; and (c) no conflicting interest between a travel agency and the school.

Students in the class are evaluated based on weekly market reports, class participation, a final exam, and a final report. Weekly reports (25% of the grade) entail summarizing current trade or newspaper articles on the New York fashion market. Class participation (25%) is evaluated based on attendance/ professional conduct in all scheduled activities during the field study as well as regular class periods. Also, after the trip, students are tested on class materials and information presented during the trip (25%). The final report (25%) consists of a daily log of activities and business appointments during the trip. In addition, the log includes an evaluation of the field study experience and suggestions for the future field study.

The overall benefit of the HUMR 302 APPAREL FIELD STUDY is that it provides students, in an exciting, effective, and fairly economic way, a comprehensive introduction to the U.S. fashion industry.
CUSTOMER EXPECTATIONS AND FUNDAMENTALAttribution ERROR: SATISFACTION, PATRONAGE AND RETAIL STORE SERVICE

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Apparel retailers are seeking competitive advantage through good salesperson service. However, retailers must understand customer expectations and be willing to adjust. Management expectations of salesperson/customer interactions, in the form of store policies, may form a barrier to the delivery of good customer service.

In a 2 (customer expectations) by 2 (policies) experiment, 200 volunteer college women viewed slides of a store's interior, varied to manipulate customer expectations (high/low level of visual merchandising) and listened to audio tapes (good/poor resolution of a problem) of a polite salesperson resolving a problematic situation according to store policy. Dependent variables were measures of satisfaction and patronage intent. Results revealed that policies affect satisfaction with salesperson, satisfaction with service, and patronage intent. Thus much of the dissatisfaction with service in apparel stores may be a result of poor policies instituted by management which fail to meet customers' expectations. This fundamental attribution error stems from the subjects' inability or unwillingness to separate dissatisfaction with the policy from dissatisfaction with the salesperson. Complaints about salesperson service may actually be a result of poor policies. As long term sales and profits are dependent on store patronage, the effects of poor policies may out weigh polite, friendly service providers.

THE APPLICATION OF VISUAL LIGHT VARIATIONS IN MERCHANDISE DISPLAY AND STORE PLANNING

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An important element in merchandise display and store planning is the use of lighting, both natural sunlight and artificial or electric lighting. Lighting is used to draw the customer's attention to the merchandise, to direct shoppers through the store's selling area, to highlight specific objects, to create a mood and emphasize or minimize texture. Lighting has been referred to as the quickest and most direct form of nonverbal communication but the impact of lighting on merchandise presentation is difficult for students to visualize in a lecture presentation.

A "Multiple Light Demonstration Device" (M.L.D.D.) was designed and constructed for use in a visual merchandising course for the purpose of helping students visually see colors of light, the effect of light on color, the merchandise, and the area surrounding the merchandise. The different types of light included in M.L.D.D. were: incandescent, cool white fluorescent, cool white deluxe fluorescent, warm white fluorescent, daylight fluorescent, and high intensity discharge light.

Students experienced and analyzed how light sources effect color and texture through an in-class demonstration presenting a comparative analysis of differing colors and textures using the M.L.D.D. Application of this knowledge, augmented with lecture content and text readings, was then applied to an in-depth store layout project. Not only were students required to visually present a floor plan for a specialty store or boutique in a department store, but lighting arrangements depicting the appropriate and most effective use of fluorescent, incandescent, and HID lighting system and bulb variations was also to be specified.

Inclusion of the M.L.D.D. in visual merchandising coursework has not only been an effective way to dramatically show the "look" of light and its effect on merchandise and visual presentation, but the M.L.D.D. has potential application in courses addressing aesthetics and apparel selection through an understanding of the interaction of light sources on the visual form.
WOMEN, WORK INVOLVEMENT AND SATISFACTION WITH CAREER APPAREL
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Satisfaction with career apparel in terms of availability, fit, cost, suitability, quantity and quality may be related to work involvement, employment status, and the degree to which one views clothing as instrumental in job effectiveness and career advancement.

The purpose of this study was to examine demographic characteristics and work involvement of women to determine if a relationship exists with fashion opinion leadership, clothing interest, and satisfaction with career apparel. A national panel of 1000 women was sampled via mailed questionnaire containing measures of fashion opinion leadership, clothing interest, satisfaction with clothing, work involvement, and selected demographics. With a response rate of over 60%, respondents were fairly evenly distributed between ages 18 to over 55. Almost 75% were employed full or part time and of those 45% were in managerial or professional positions. Close to 70% had at least some college. For those employed, respondents were evenly divided between considering their work a job or a career.

Analysis of variance found no significant differences between those who view their work as a job or career on satisfaction with apparel. Neither was the job/career dimension found to predict fashion opinion leadership or clothing interest. However, fashion opinion leadership was found to be significantly related to satisfaction with availability and fashion/style. Clothing interest was significantly related to quality, fashion/style, cost, and suitability. Chi square analysis revealed a significant difference between working and non-working women on satisfaction with quantity.

The results of this study indicate a need for apparel manufacturers and retailers to create a product mix that satisfies the desires of all women but especially the working woman as an increasingly significant and evolving market segment.

CHINA’S CONSUMER MARKET:
SHANGHAI CONSUMERS’ ATTITUDES TOWARD FOREIGN-BRAND AND CHINESE-BRAND APPAREL
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To successfully compete in China, companies must understand differences exist in everything. Unfortunately, research into what Chinese consumers want from and how they perceive foreign-brand apparel is lacking. This exploratory research investigated Chinese consumers' attitudes toward foreign-brand and Chinese-brand apparel to help manufacturers and marketers to understand better China's consumer market.

The research was guided by Fishbein's multiattribute attitude model (Fishbein & Ajzen, 1975), and the questionnaire format followed Dillman's (1978) survey design recommendations, using the 13 salient dimensions found through the pilot study of this research. The instrument was administered to 200 Shanghai, China, male consumers who answered questionnaires while they viewed three identical men's dress shirts, each with a fictitious country-of-origin label. The sample covered different age, occupation, income, and education levels. Data were analyzed by t-test, correlation, analysis of variance, and regression methods. Results supported the hypothesis that Chinese consumers' attitudes toward foreign-brand apparel were predictable using the Fishbein model. Findings indicated that Chinese consumers' attitudes toward foreign-brand apparel were significantly more favorable than those toward Chinese-brand apparel in terms of perceived quality, perceived price, and purchase willingness. The key attitude-affecting factors were: foreign-brand apparel creates "higher self-esteem," has "better style," and "better quality" than Chinese-brand apparel, which had positive effects; and it is "too expensive" to buy, which had negative effects. Only one demographic factor, the monthly household income per person, significantly influenced the attitudes, and the other three, i.e., age, occupation, and education did not.

This research should help apparel manufacturers and marketers in other countries improve China trade prospects by recognizing Chinese consumers' attitudes toward foreign-brand apparel and the key attitude-affecting factors, and increase the likelihood of success for developing, modifying, and marketing apparel products for Chinese consumers.

THE POLYESTER INDUSTRY IN SOUTH KOREA AND TAIWAN: A COMPARATIVE ANALYSIS

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Over the past decades two NICs, South Korea and Taiwan, have received great attention as suppliers of textiles and apparel in global markets. However, little attention has been paid to the growth of man-made fiber industries in Taiwan and South Korea, which have grown into the world's largest and fourth largest polyester producer. They have shared common experience in the development of textile and apparel industries but exhibit divergent pattern of the growth of polyester industries.

This study examines the evolving pattern of the development of the polyester industry in South Korea and Taiwan, elucidating the determinants of the competitiveness of the two countries using Michael Porter's competitive advantage theory. Despite the similarities in factor endowment, demand conditions, development of the related industries and government policy, Taiwan has significantly outgrown South Korea in polyester fiber production.

Findings of the study indicate that Taiwanese corporate's aggressive investment strategies have led its polyester industry to become globally competitive by taking advantage of economies of scale. Their investment was directed toward both developing and developed countries in order not only to secure the supply of raw materials, but also to get close to the market for their high volume low-cost polyester products. Furthermore, the expansion of polyester production has been based on the demand created from off-shore Taiwanese textile and apparel processing firms through close business relations or integration of operations.

The results provide insight for other Asian and Latin American developing countries in developing their own polyester industry.


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Intense competition has challenged U.S. textile, apparel, and retail firms' historical focus on domestic sales. In 1970, few were global players. Strategies of internationalizing firms have had limited study. This research investigated U.S. firms selling goods, services, or names in foreign markets since 1970. Objectives were to: (a) identify firms, (b) identify markets entered, (c) determine modes used to penetrate foreign markets, and (d) identify product lines sold.

Historical research identified companies and captured information about international marketing actions and involvements. Primary data sources were news reports in business and trade publications and corporate descriptions in business directories. Data were organized into database file categories: (a) pipeline segment (textile, apparel or retail); (b) industry sub-sector (e.g., men's or women's apparel); (c) product lines; (d) mode of involvement (export, licensing, joint venture, and subsidiary or division); (e) markets entered; and (f) chronology of involvements.

A sample of 48 textile, 100 apparel, and 15 retail firms was identified. Canada, Latin America, Europe, Asia, and Australia were identified as marketing zones. Most firms were involved in only one foreign zone. All four modes of involvement were found. Textile and apparel producers used exporting and licensing networks more often than joint ventures or foreign subsidiaries. A diverse array of product lines was marketed abroad.

Findings serve three purposes: (a) provide a foundation for additional research; (b) add to limited international marketing literature on soft goods industries; and (c) inform decision-making of firms involved in or considering entry into the global marketplace.
MANUFACTURERS' AND RETAILERS' PERCEPTIONS OF THE EFFECTS OF NAFTA

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Comparative Advantage exists when trade is beneficial and a country is relatively more efficient in producing a good than its trading partner. This implies U.S. apparel production would be lost to Mexico and American retailers will purchase Mexican over U.S. products. It was expected that manufacturers and retailers would have different opinions regarding NAFTA.

Samples consisted of the S.F. Fashion Industries membership (manufacturers) and the S.F. Fashion Center registration list for one market week (retailers). A questionnaire was developed based on issues related to NAFTA and the apparel and retail industries. Some questions were appropriate to both groups; others were asked of only one group. Fifty manufacturers (63% return rate) and 42 retailers (35% return rate) responded to the questionnaire. The majority were small with under 25 employees. Statistics included t-tests, frequencies and percents.

There were some significant differences between the groups; however, most felt their businesses would not change much if NAFTA were enacted. Manufacturers: more than retailers felt their companies would change; few would consider moving production to Mexico; some felt they would experience an increase in competition from Mexican goods; few presently export to Mexico; however, more indicated they would consider doing so if NAFTA were enacted. Retailers: two-thirds purchased some merchandise from Mexico; the majority felt it was of poor quality; however, they felt their customers would purchase Mexican made apparel if the price was lower than other merchandise.

Comparative Advantage was not supported by this sample of small companies which held the perception of little immediate effect to their businesses due to NAFTA.

THE POSTMODERN PARADIGM: AN INSTRUCTIONAL GUIDE TO CONTEMPORARY APPEARANCE CODES

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This slide-script program, developed for use in an undergraduate course in fashion theory, was designed to enhance an instructional unit on the significance of fashion as an expression of postmodern culture. In the program I draw on Kaiser's analysis of postmodern appearance styles (1989) and Hassan's schematic of differences between modernism and postmodernism (1985) to (a) identify features that characterize postmodern appearance styles; (b) discuss how postmodern expressions in dress are distinguished from expressions which represent modern fashion; (c) contrast fashion change in modern culture with fashion processes in postmodern culture; and (d) explain the new vocabulary attached to postmodern clothing and appearance styles (i.e. bricolage, pastiche, deconstruction).

The complexity of contemporary social theory often renders works on fashion and postmodernism inaccessible to undergraduate students; the time needed to digest such works may provide a barrier to graduate students and clothing faculty with expertise in areas other than social and cultural theory. My intention is that the slides (which are reproductions of contemporary fashion advertisements) and the script explain, in graphic visual form and conversational language, both what postmodern fashion is and why it is identified as uniquely representative of contemporary social life.

WORKING IN A GLOBAL MARKETPLACE

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DOCUMENTATION OF NEED: World markets are becoming available at unprecedented rates, and it is important for the U.S. to cultivate these new opportunities. An important part of working globally is to acquire an understanding of people in various cultures by studying cultural patterns, e.g., how information flows (freely or through restricted channels); whether power is centralized or diffused; how decisions are made and by whom; how people conduct interpersonal relationships; gender roles; and how much close personal contact and confidence exists between people. In addition, it is also important to understand the nonverbal cultural communications which can be even more complex than spoken or written messages (Hall & Hall, 1977).

OBJECTIVE: The objective of this project was to enhance students’ awareness of similarities and differences between cultures and their effect on business situations and relationships.

PROJECT/MATERIAL DESIGN: Students enrolled in a senior-level merchandising management class were divided into groups of three. Each group selected a country/culture to research. Research included library resources and personal contact with a person from the culture being examined. The students were to determine cultural patterns and their effect on working relationships. Groups prepared a research paper and developed a hypothetical business situation in which they role-played professionals from the U.S. interacting with professionals from their chosen country.

EFFECTIVENESS OF ACTIVITY: Students commented on having a new awareness and appreciation for differences among people and the importance of researching cultures before making foreign business contacts. This activity will be further developed and incorporated into future course content.

HISTORIC COSTUME CLASS PROJECTS
LINK PAST WITH PRESENT

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Teaching historic costume with lecture/slide presentations may be acceptable sometimes, but it is desirable to involve students in the learning process through use of innovative projects/activities. Consideration was given to available resources when planning for a course in costume history which is required of apparel, textiles and merchandising majors. A small historic costume and textiles “teaching” collection in the department was main resource for three projects/activities. Projects were: adaptations, an exhibit, and documentation. The objective of the adaptation project was to design fashions for today based on costumes from the past. Items from the collection were inspiration for adaptations from bustle period through the sixties or about half of total adaptations required. Sketches were presented in color and included thumb-nail sketch or photocopy of the historic inspiration; a personal logo was the signature for students. Students had opportunity to work in small groups on the exhibit project. Exhibits featured items from the collection and were done using cases in the building where collection is housed. The documentation project involved researching, wet cleaning, and preparing an item for tagging and logging into collection records. While wet cleaning might not be feasible to include every semester, the abundance of sturdy white cotton articles made this possible. Students followed procedures established for documenting items in the teaching collection including completion of a work-sheet and taking photographs. Course evaluations done university-wide plus students’ comments were used to assess projects. The adaptation project received positive comments overall. There was apprehension about sketching designs but instructions on use of a model figure or croquis lessened initial concerns. The exhibit assignment was also well received and executed. Students gained even greater respect for the historical items as a result of this hands-on experience. The documentation project was deemed most difficult. There was no objection to wet cleaning of items but locating appropriate sources to complete the documentation was a problem. Positive outcomes of these projects outweighed the negative. Enthusiasm and interest in using the costume collection items was great. Students gained knowledge and meaningful experiences while making a contribution to the collection via the documentation project and exhibits. Adaptation project results were returned to students and can be used in portfolios as appropriate. Revised versions of these projects will be included in teaching the historic costume course in the future.

MINORITY APPAREL WORKERS
BALANCE HOME AND WORK

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Several methods female African-American apparel workers use to balance domestic and employment responsibilities were identified in this qualitative study. Data were gathered in northwest Alabama through on-site observations of two apparel factories and personal interviews with twelve operatives.

The theoretical framework was based on Thompson's Hestian/Herman paradigm of the dynamic relationship between the private and public domains. Additionally, sociological concepts related to family-work conflict, cultural support systems, socio-historical patterns of oppression and working-class status contributed to the theoretical framework.

The study revealed that participants adopt various domestic roles (i.e., mother, wife, homemaker, daughter, grandmother, financial provider) and employment roles (i.e. employee, production worker, coworker, expert) which are rooted in social positions as African-Americans and as females. Time-based conflict resulted from diverse family and job demands, especially for women with young children. Strain-based conflict occurred due to the physical demands of apparel production jobs. Participants relied on company policies, domain distinctions and family members to balance home and work.

The study suggests a need for research to understand; (a) culture and the adoption of home and work roles, (b) perceptions of the relationship between physical job strain and company policies and (c) worker’s definitions of meaningful workplace policies.
DRESS OF THE TSONGA WOMEN

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Anne Cuenod, Social Anthropologist, Pretoria, South Africa

Our objectives were, 1. to study the dress of the Tsonga female by compiling a list of items and dress customs, acculturated and traditional, and, 2. to describe the historical influences and developmental patterns of the Tsonga dress forms.

The research was conducted in two phases, an investigation of the form and meanings of contemporary and traditional dress symbols, and a literature review of the historical development of the Tsonga dress.

From the writings of the early missionaries, traders, and explorers, dating from the 16th century, we learned how the Tsongas had always had access to fabric, so were able to wear cloth rather than skins and grass. A few old pictures, and the memories of the old women in the tribes helped to fill in the gaps of our historic research.

Our research team made five visits to the Tsonga settlements in Gazankulu (the independent state of the Tsonga people) staying as long as three or four days at a time. To verify our data by sufficient cross validation, we made 14 separate visits and interviewed 33 women.

The study of the two main items of dress, the Nwandindi, a short, full under skirt, and the Nceka, a brightly printed rectangle of fabric which is tied under one arm and over the opposite shoulder, was the focus of the clothing study. The skirt, worn below the waist, creates the desired shape and is used as a dancing costume, (similar to the hula skirt). The Nceka is worn over the skirt, as well as over other plain, western style clothing.

EXPRESSIONS OF RANK IN CH'ING DYNASTY COSTUME

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Much has been written on Ch'ing designation theory. The expression of rank in design has received little attention although its rich diversity in color, form, and material offers treasures and intrigue for costume research. This study investigates the design rules for official costumes used by the Ch'ing Dynasty to designate rank. Data were collected from Ch'ing costumes at the National Palace Museum of Taipei and from extant Ch'ing law books such as: Ta-Ch'ing-Hui-Tien, Ta-Ch'ing-Hui-Tien-Shih-Li, at the National Central Library of Taipei. The primary focus of this study is the use of color, material, pattern, and garment type to indicate rank and social status.

Research reveals that rank designations were expressed in every costume detail. Rank indication started with hat design. Jewels and feather attachments to the hat were prescribed by custom. Peacock feather were worn by members of the Imperial family through the fifth rank and blue quills for sixth or lower rank. Badge motifs on robes represented the nine ranks of both civil and military officers. Yellow was the central color representing the earth, the center of the universe dominated by the Emperor as the source of all power and blessing. Color was used politically to distinguish rank and status. Colored robes and girdles identified the ranks of princess and nobles respectively. Court necklaces were only used by officials of the fifth grade and above in civil and the fourth grade and above in military posts.

Clothing was an outward indication of the social hierarchy. Power conferred by the rank and status of the individual held a special importance in Chinese culture. Each rank performed its own special duties, and the wearer's status had to be immediately recognizable by the prescribed costume. Because clothing displayed rank, clothing demonstrated power. All aspects of clothing were rigidly defined by law. Any deviation from the prescribed costume could be punished. In conclusion research found that Ch'ing costume: (1) used different gems, colors, or metals to identify rank; (2) used to rapidly indicate identify the wearer; and (3) used status symbols to indicate power and prestige. Colors, patterns, styles of robes and hats indicated the symbolic rank in Ch'ing dynasty.
QUILTS AND DIVERSITY

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Recent scholarship on diversity in American quilt making traditions reveals regional characteristics. Diversity in Rhode Island's quilt heritage is explored in terms of the state's demography. Findings are derived from the RI Quilt Documentation Project Archives.

The RI Quilt Documentation Project is a three-phase project to document, exhibit, and publish Rhode Island's quilt heritage. Organized by faculty and staff at the University of Rhode Island in collaboration with volunteers from quilt guilds, the project includes both privately-owned quilts and those in public collections made and/or used in the state prior to 1949. Documentation consists of examination for physical characteristics, interviews with quill owners for quilt and quilt maker history, and photography. To date, 843 quilts have been documented.

Rhode Island's quilts reflect the diversity of its communities. The earliest quilts show strong ties to the UK through use of imported British fabrics and the English piecing method. African Americans in Rhode Island made quilts although few survive. Narragansett Indians may have made quilts although none came forward during the documentation days.

The second half of the nineteenth century saw an influx of immigrants from other countries in addition to England. The French-Canadian were the only group to wholeheartedly embrace the quilt making tradition. Other immigrants from Northern European countries also participated in quilt making, adopting the established regional traditions without adding elements from their own cultural heritage. The Italians and Portuguese preferred white work, lace, and crochet to quilt making.

STUDENT TEAMS DESIGN A SMALL APPAREL COLLECTION FOR PENDLETON EVALUATED BY PROFESSIONAL CRITIQUE TEAM

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This cooperative project with Pendleton Woolen Mills has evolved over thirteen years to be an effective experience working as a member of a 3-person design team to prepare students for the realistic work environment.

Objective: To design, illustrate, and provide technical drawings and prices for a 7-piece collection of wool jackets, skirts, pants, and 1 blouse to meet the target customer criteria for the Miss Pendleton line, including style and price for the target customer.

Method: Pendleton fabric swatches for the subsequent fall season are provided, and all teams use the same fabrics. The merits of previous years' projects are evaluated. Students conduct research in retail stores to study the design parameters and price range of Pendleton and its competitors. Design sketch ideas are critiqued in class.

Discussion and Evaluation: The projects are presented by the student design teams to a critique panel (including alumni) at Pendleton Design Studios. The Pendleton critique team studies the collection, asking questions of the students. The successful areas of the designs are praised by the critique team, and design and manufacturing concerns are discussed. Accuracy of their price estimates is discussed, based on the estimate yardage and labor costs. Occasionally, the student and professional teams engage in back-and-forth negotiations, creating a very realistic learning experience. The student design team might be asked if they would be willing to "sacrifice" a design feature to bring the cost into the acceptable price range. Students look forward to this project as a capstone experience in their college preparation - requiring the assimilation of material from many courses. Pendleton personnel continue to enjoy contributing to the education of future professionals in the field of apparel design and manufacturing.
4-H TECHSTYLE TRENDS: A TEXTILE SYMPOSIUM

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A 4-H textile symposium was developed and conducted for male and female 4-H members, ages 15-18, from throughout Texas. The purpose of the symposium was to strengthen the 4-H clothing and textile program and to supplement other clothing and textile educational opportunities in Texas. The objectives of the symposium were (1) to provide an opportunity for youth to explore textiles and clothing career options, (2) to promote interest in textile-related research and in industries related to natural fibers produced in Texas, (3) to provide an avenue for 4-H members to complete indepth-textile projects and to share their knowledge, (4) to provide an opportunity for collaboration between higher education and Texas youth, and (5) to complement linkages between the textile and apparel industries in Texas, Texas Tech University College of Human Sciences, and the Texas Agricultural Extension Service.

The symposium was designed to allow a maximum of 56 4-H members to participate in a series of laboratory experiences and tours to introduce them to a variety of topics in textiles and clothing. Lab experiences included applied surface design on fabrics and leather, shibori tie-dyeing, commercial dyeing, flat-pattern manipulation, fashion illustration, textile testing, and stain removal. Tours included modern textile production of cotton denim using West Texas cotton, yarn production for use in mops and filters, knitted sock production, and the role of research and development in aiding fiber producers and fiber, yarn, fabric, and apparel manufacturers.

Career panels were also a part of the symposium, featuring industry professionals from textile and apparel production and management, quality control, textile research, fashion design, and retail management and promotion. Symposium participants rated the career session as excellent, in that it provided an opportunity for interaction between professionals and 4-Hers.

Because of the success of the first symposium, it is currently an annual event in Texas. Overall response was positive from participants, instructors, and 4-H adult leaders. The 4-H members evaluated the experience as excellent and influential in college career choices.

Universities in other states can replicate this type of curriculum to create interest in and to promote textile and clothing careers.

DATABASE MANAGEMENT OF TEXTILES AND APPAREL TEACHING RESOURCE COLLECTIONS

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Teaching resources developed or acquired over the years are often underutilized. With the addition of two new courses in apparel quality analysis and apparel production methods requiring examples of clothing components for analysis and comparison, a decision was made to establish a permanent collection of garments which would be readily available to students and faculty. To insure maximum utilization of such a collection, information about individual garments was recorded in a database, facilitating easy retrieval of information for a variety of instructional purposes.

Apparel donations were solicited from staff and students at the university. Selected garments were assigned individual numbers.

FileMaker® Pro was used as the database software on a Macintosh IIsi computer. The following fields were developed: garment category, description of garment, condition, flaws, detachable ornamentation, course(s) and topic(s). Other fields included the identification number, name of donor and date of acquisition. Pre-defined value lists were developed for those fields requiring standardization of descriptive terms. Examining individual garments and writing comprehensive descriptions, while time-consuming, is a necessary process if the example is to be as useful as possible and was a valuable learning experience for the instructor.

Because of ease in locating specific apparel examples in the database, garments were frequently incorporated into classroom learning experiences for both new courses as well as an existing apparel design class. Information within the database fields will be reviewed and revised as needed, based upon initial use.

Similar database management techniques are applicable for other resource collections including designer and historic costume slides as well as textile samples.
CONTEMPORARY VARIATIONS ON THE TRADITIONAL BRIDAL GOWN OF SAUDI ARABIA

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APPAREL AND INTERIOR COLOR INITIATION: SAN FRANCISCO

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Color controls a major interest in the aesthetic/economic pursuits in the apparel and interiors industries. This study provides a useful analysis of the creative problem-solving process used by industry designers to determine color choices, especially for those industries wishing to expand their operations to financially safe design areas. The overall goal of this study was to establish the forces in our culture which have the greatest impact on apparel and interior manufacturing color selectors and to compare the perception of color initiation (where color begins) of these two major industries in San Francisco.

The questionnaire was developed by manufacturers, designers and research consultants. Data were collected by the developed questionnaire which was sent to 250 apparel and interior color decision makers in the Bay area. Twenty-two factors were rated on a 1-5 scale as to which helped determine color decisions. The results showed that the creative color decisions were driven by last-year-sales, competition, or tradition. Few color decision makers indicated that their color choices were made for their own aesthetics or macro-cultural factors. The apparel and interiors industries retained a certain amount of autonomy to each other; they differed in 50% of the 22 factors in the study.

Traditional bridal gowns of Saudi Arabia were heavily decorated with jewelry, embroidered with gold or silver thread, and trimmed in lace. Colors, fabrics, quality and amount of gold on the gown varied according to region and family status. In an effort to reclaim some of the Arabic traditions, the purpose of this study was to design a line of six contemporary wedding ensembles for the Muslim bride using motifs derived from Islamic architecture and the holy Qur'an.

CAD technology was used in the pre-production design of the gowns and of the trim designs. CAD technology was also used to produce gold thread embroideries for application at neckline, cuff and hemline of each gown.

Sketches of the six bridal gowns were evaluated by a group of Saudi Arabian women in Jeddah, Saudi Arabia. Using a Likert-type scale the subjects ranked each gown on five separate items. The designer was interested in getting feedback on the acceptability of each gown to a Saudi clientele before beginning production.

This research adds interesting information to the ethnographic knowledge base concerning wedding customs in the Islamic world which can increase understanding across cultural boundaries. The process documentation of this research adds new design potential to the small couture studio by combining computer technology and ancient source of inspiration material with current methods of CAD embroidery.
FACILITATING TEAM PROJECTS IN TEXTILE CLASSES

Sara J. Kadolph

Teamwork is important to graduates' success. Yet, students have limited experience in teamwork and team dynamics. Faculty do not help students understand how teamwork differs from individual work. Students encounter problems when working in teams: arranging meetings, delegating responsibilities among members, meeting deadlines, and establishing performance standards. Because of these problems and frustrations, I selected cooperative teamwork as the model to use in textile testing.

Cooperative teamwork has five major elements: face-to-face promotive interaction, positive interdependence, individual accountability and personal responsibility, interpersonal and small group skill development, and group processing (Johnson, Johnson, & Holubec, 1991). Each element is critical to a satisfactory team effort.

In textile testing, I help students understand cooperative teamwork. A handout focuses on how cooperative teamwork will be used in class and suggests ways to distribute responsibilities among members. We discuss interdependence. We identify positive interpersonal and small group skills. We focus on how members establish and accomplish team goals. I explain my evaluation process for subject matter knowledge and team contribution. I allow time for teams to discuss their work and address areas where work is not satisfactory.

When comparing cooperative teamwork projects to regular team projects, cooperative projects are complete, more in-depth, higher quality, and more professional. I find a more cooperative and positive spirit within the class. Students are more excited about and involved in projects than before. Teams have fewer conflicts. Student members are empowered to deal with team problems without me. Some team members apply cooperative teamwork to other classes to mastering subject matter and work in groups. Learning how to integrate cooperative teamwork in class requires faculty time and effort. Class time is needed to orient students to cooperative teamwork and to conduct group processing. However, the rewards are worth the effort. Cooperative teamwork is a successful way to deal with team projects.


CLOTHING CONSTRUCTION: SKILL OR CONCEPT?

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A skill-based orientation focuses on sewing ability and construction of a nearly perfect completed product. Sewing requires dexterity, good eye-hand coordination, and skillful manipulation of materials developed by repetition. Evaluation is based on the level of skill represented in a completed product.

A conceptual-based orientation examines concepts, integration of variables, and their interaction that constitutes a particular product. The focus is on problem solving based on an analysis of variables and their interrelationships. Variables, such as the characteristics of materials, handling and assembling materials, equipment choice, quality standards, and performance expectations all affect construction decisions. Decisions are made as to stitch and seam selection, use of support materials, positioning of materials for sewing, sequence of operations, etc. Methods are developed based on analysis of variables and known concepts of assembly. Evaluation of the completed product is based on justification of methods, analysis and evaluation of decisions (appropriate or inappropriate) that were made, and recommendations for changes that are needed.

Adopting the conceptual approach to teach the basic clothing construction class included two projects, casual pants and a camp shirt. Steps in construction of the projects include establishing standards, developing a method, and constructing the project based on the standards and method. The students developed standards for the pants based on an extensive analysis of the ready-to-wear pants that they systematically disassemble. Students developed standards for the shirt after extensive examination of similar ready-to-wear at varied price points.

Students evaluated the products they constructed based on the established standards. Evaluation of student work was based on their analysis of the decisions made relative to each operation, their rationale for why the decision was successful or unsuccessful, and their recommendations for improvement. Completed projects were evaluated based on the decisions that went into the project, not on the level of competence and perfection, not the final product.

After using this approach I found that students approached the process from a holistic perspective instead of following step by step directions. Students were more willing to try new options and were less intimidated by their lack of experience and skill. Students are forced to think through each operation and its effect on the product and succeeding operations before making decisions.
University program restructuring, changing career opportunities, and technological developments have forced many textile and apparel programs to rethink their curriculum. This integrated approach to teaching apparel construction and analysis has evolved to meet these changing needs.

Integrated teaching of apparel analysis and construction focuses on several components. Students are introduced to apparel construction and analysis using lecture, demonstration and visual inspection. Construction is taught using apparel component laboratory activities. Students also construct an entire garment to apply skills they have learned and increase their knowledge of production sequencing, labor skills, quality control and production/garment costing.

Videos, guest speakers and field trips to local apparel manufacturers expose students to additional aspects of the apparel industry. Students are introduced to the CAD/CAM system and complete assignments relating to grading and marker making.

Critical thinking and analysis skills are developed throughout the semester as students complete comprehensive evaluations of ready-to-wear. A form/checklist has been developed which aids students in their garment scoring and evaluation summaries. These evaluations relate what the student has learned in the classroom to what is available in the marketplace.

Implementation of the integrated teaching approach significantly increases the student's consumer knowledge base and ability to evaluate apparel. Each of these components is designed to enable students to synthesize the relationship between apparel quality, construction, and cost. The effectiveness of this teaching strategy is evidenced during student's final ready-to-wear evaluations.

With record numbers of women starting businesses, research is needed on how females and males compare on business strategies and personal traits. The purpose of the study was to compare business strategies and demographics of men and women entrepreneurs in apparel production in Texas.

U.S. SIC codes for women's and children's apparel were used to identify the male and female manufacturers (n = 424). Using Dillman's (1978) method, the instrument, with four Likert-type scales, was developed. A response rate of 47% was obtained. Complete responses, 49 males and 57 females, were analyzed (t-test and ANOVA).

Significant differences were found on factors within three of the four scales. For Competitive Strategies (.76), men held higher value for Financing Strategies. In Reasons for Ownership (.78), women valued Flexibility more than men; Achievement was valued higher by women; men valued Mentoring and Independence higher. On the Management Activities scale (.84), females responded more favorably to Craftsman activities. (Cronbach's alpha.)

Differences based on mean scores were: men had more college degrees than women; men's common major was business, women's was liberal arts; more men than women were 41-50 years old; more men received 51-100% of income from the business, women received less; more men earned an annual income of $100,001, women earned less; more men than women owned corporations; and more men than women worked over 41 hrs per wk.

Most manufacturers perceived their businesses as successful. Research needs to address values and beliefs for success rather than the traditional male model of income and number of employees.

The purpose of this research was to investigate the degree and nature of instructional computer use within textile and clothing programs and to examine the role of a range of variables as predictors of adoption success.

Using a random sample from the ITAA membership, data were collected using a mailed survey questionnaire as well as telephone interviews to a limited number of firms determined to employ graduates of textile and clothing programs. Data were analyzed using frequency counts and percentages as well as cross tabulations to identify patterns between instructional computer use and those forces identified as having an influence on adoption decisions.

Results showed that barely half of respondents were using computers as part of their instruction and that such applications had been in place for less than seven years, suggesting that the final adoption decision had not yet been made. It was also discovered that applications rarely embraced industrial technologies of greater complexity. External (institutional) forces were found to have greater importance than internal (personal) forces, indicating that successful adoption is more dependent upon forces over which individual faculty members have no control. Recommendations from this investigation include increased allocation of resources to computer acquisition, maintenance and support within educational institutions.

Citation analysis involves the rank ordering of authors' of writings referenced in the published research of a field with the assumption that the rankings correlate highly with peer recognition and with the magnitude of the authors' contributions to the field. The purpose of this research was to conduct a citation analysis of authors in publications appearing in the Clothing and Textiles Research Journal from its inception through volume 12, issue 1 and all textile and apparel publications appearing in the Home Economics Research Journal since its inception through volume 22, issue 2. These journals were chosen since they are often considered to be the most comprehensive sources in the field (e.g.: Oliver & Mahoney, 1991).

Of the 456 total qualifying publications in the two journals, 16,104 references were extracted. Authors who were referenced at least 25 times in the publications were rank ordered. Fifty-two authors qualified as most referenced. The top most referenced authors in the two journals, in rank order were: M. Roach, L. Davis, J. Eicher, S. Kaiser, G. Winakor, L. M. Gurel, M. DeLong, E. Kelley, H. Buckley, M. Drake, and R. Nagasawa.

A CASE FOR THE USE OF A STIMULUS SAMPLING TECHNIQUE IN PERSON PERCEPTION RESEARCH STUDIES

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Person perception research studies reported in the Clothing and Textiles Research Journal have two common characteristics: 1) the experimental variable is often measured by manipulating the appearance of only one stimulus person and 2) studies imply that generalizations can be made to the population of ratees as judged by the subjects. In the design of person perception studies the researcher should be able to separate the effects of experimental manipulations from the effects of extraneous variables. Stimulus sampling allows for control of extraneous variables. The purpose of this paper was to present and analyze the results of research involving stimulus sampling and to identify why control of variance due to the stimuli is important. An experimental design was employed. Perceptions of fashion advertisement constituted the dependent variable. Characteristics of model were the independent variables. Three different models were used to represent each model type, e.g., three different models of older-than-average-age-model were used. Three groups of approximately 80 individuals (n=236) viewed slides from each of the experimental groups and responded on a perception of advertisement scale. The multivariate analysis revealed statistically significant effect for model \[ F(3,232) = 3.39, p<.01 \]. However the statistical differences were associated with models within a model type rather than between groups.

BUSINESS WOMEN’S ATTITUDES TOWARD DRESS IN SEXUAL HARASSMENT CASES

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Gender stereotypes, often inaccurate, figure strongly in the public's perceptions of both parties in sexual harassment cases. Research consistently finds that the perceptions of stereotypically provocative dress affect perceptions of victim responsibility for inciting harassment. The more attractive and sexy a woman appears, the more responsibility for harassment is assumed. Lennon, Lennon, and Johnson (1993) argued that clothing is an ambiguous and inaccurate form of communication and cannot be indicative of intent by victims "asking for" sex or attention to sexuality, therefore it should not be considered as evidence in sexual harassment cases.

**Purpose:** These findings examine the problem of sexual harassment and explore possible influences (if any) dress is perceived to have in harassment incidents. Women's experiences of harassment situations on the job (if any), and their attitudes about and acceptance of victim stereotypes related to dress were explored. Participants were asked whether dress, in their opinion, should be admissible evidence in sexual harassment court proceedings.

**Method:** Long interviews with 24 women in business positions were conducted. The interview included questions about the participants' work experiences, their professional appearance images, and perceived influence of dress on work interactions, particularly related to sexuality and sexual harassment. Two trained coders used grounded theory techniques in a content analysis of the text of the interviews.

**Findings:** The majority of participants held stereotypes about dress indicating that women "should be careful not to send the wrong message." 62% of the participants believed that dress should be allowed as evidence in court, although many were uncomfortable with the implications of their own beliefs. They held women responsible for the symbolic implications of dress, even realizing that dress could be misread. Direct experience with harassed women to conclude that dress is irrelevant to harassment behavior; those with past experience of harassment asserted that it is a conflict of personal power between men and women, not of sexuality and appearance.

**References:**
EFFECTS OF CLOTHING ON SELF-PERCEPTIONS OF EMOTION, SOCIABILITY, AND WORK COMPETENCY

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Does our appearance influence the way we behave? Most of us have special personal associations with the clothes we have on. The major objective of this study was to investigate the effects of positive and negative feelings toward individuals' clothing on their self-perceptions of emotion, sociability, and work competency. Three hypotheses were formulated and tested:

H1: There are significant differences between the effects of positive feelings and negative feelings toward one's clothing on the self-perceptions of emotion, sociability, and work competency.

H2: The effects of positive and negative feelings toward clothing on self-perception of emotion are significantly related to the effects of those on the self-perceptions of sociability and work competency.

H3: There are significant gender differences on the effects of feeling toward clothing on self-perceptions of emotion, sociability, and work competency.

The self-administered survey involved following measures: (a) perceived effects of clothing on self-perception of emotion, sociability, and work competency (dependent variables), (b) positive and negative feelings toward clothes, and sex of the subjects (independent variables). The subjects consisted of a convenient sample of females (N=273) and males (N=112) who were enrolled in three general education courses, three economics courses, and three sociology courses.

Statistical results of the study supported the belief that positive feeling toward one's clothing enhanced one's emotion, sociability and work competency. Self-perception of emotion was more affected by subjects' feeling toward their clothing than sociability or work competency. The magnitude of the effects of clothing, was greater for females than for males.

COMMENTS ADDRESSED TO YOUNG GIRLS WHEN WEARING DRESSES OR PANTS

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Kaiser (1989) identified preferences of preschool girls for dresses to reinforce culturally defined sex roles. Joffe (1971) found compliments from significant others important in teaching appearance as part of traditional feminine roles. This study identified the source of positive comments for young girls wearing feminine clothing.

Twenty five girls 3 to 6 years old were interviewed by their parent about preferences for and comments received when wearing dresses or pants. The parent also identified who decided when the child wore dresses and the occasions when dresses were most frequently worn.

More positive comments were received while wearing dresses than when wearing pants; furthermore, more subjects remembered comments word-for-word about dresses (92%) compared to pants (60%). When dresses were worn, comments tended to be about the girl herself; for pants, the remembered comments were more often about the garment. The most frequently remembered comments came from a parent with fewer from siblings or friends. Females were the source of more remembered comments than males.

More subjects had a favorite dress than a favorite pant. The most frequent reason given (53%) for liking a specific dress was that it made them feel "pretty" or "like a lady".

Findings confirm both the importance of comments from family members, especially parents, and the role of clothing in learning culturally defined sex roles.


CORRELATING THE SELF-MONITORING CONCEPT WITH RETAIL FASHION SALES PERFORMANCE

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Few studies have identified and evaluated interactive behaviors that are used by fashion retail salespersons. The purpose of this study was to determine if select interactive behaviors correlate with sales performance evaluations and/or commission status of fashion retail salespersons.

Self-monitoring provided the theoretical base for this research. In general, social-psychologists agree that self-monitoring influences the propensity of an individual to behave publicly toward other people. Marketing research uses the term "adaptive selling behaviors."

The questionnaire developed for this study was based on an analysis of literature. Scale I measured responses on general self-monitoring behaviors. Scale II measured responses on adaptive selling behaviors typically used in fashion retail sales. Reliability was calculated for each scale to ensure internal consistency: Scale I, .74; and Scale II, .78 (Cronbach's Co-Efficient alpha). Pearson Product-Moment correlation analysis revealed a significant relationship between the 2 scales. Hypothetical testing used p<.05 for level of significance. The population for the study was the sales staff of a single district of a major department store chain. The convenience sample size was N = 228; 46% of the eligible salespersons completed the questionnaire.

Predictive relationships were not found among Scales I and II with performance evaluations which are given at set intervals during employment. A weak predictive relationship was found between Scale II and commission status of a salesperson. The regression equation produced F = 15.487, with adjusted r^2 = .07. Noncommission salespersons are more likely to practice the adaptive selling behaviors as described in Scale II.

What is promising is that Scale II's performance almost succeeded in meeting the criteria for significance when correlated with performance evaluations. Further research is needed to develop Scale II. This research has the potential to be developed into 2 different types of training programs: (1) for salespersons to self-evaluate performance, and (2) for managers to better evaluate sales candidates during an interview.

PERCEPTIONS OF INSTRUCTORS: DRESS AND STUDENT CHARACTERISTICS

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The present study used a social perception framework. The independent variables consisted of: a) object (instructors’ dress formality), b) perceiver (gender and clothing interest), and c) situation (university setting). Student assigned teacher characteristics served as the dependent variable. Null hypotheses predicted no relationship between: a) level of instructor dress formality and perceived instructor characteristics; b) students’ clothing interest and perceived instructor characteristics; and c) student gender and perceived instructor characteristics.

Instructor’s dress was operationalized by using 3 black and white photos of a model in informal, moderate and formal attire. A pretest was conducted to condense the teacher characteristic scale used by Butler and Roesel (1989). In addition, a streamlined version of Creekmore’s (1971) clothing interest scale was employed. A convenience sample of 216 students from three universities was employed.

Factor analysis revealed three instructor characteristic factors: approachability, inflexibility and respect. Repeated measures ANOVA revealed significant differences (p<.001) between the levels of clothing formality for all three factors. Post hoc analysis indicated that the instructor dressed: a) informally was viewed as more approachable and flexible, b) moderately was perceived as deserving the most respect, and c) formally was seen as more inflexible and less approachable. Correlation coefficients revealed four significant (p<.05) relationships between clothing interest and teacher characteristics as related to dress. No differences between gender and instructor characteristics relative to dress were found.

AN ANALYSIS OF CLOTHING SYMBOLISM DESCRIBED IN CHARLES DICKENS' NOVELS

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Symbolizing is a universal phenomenon and clothing is one of the most important symbols. A novel creates literary symbols with language to express various images and complex of thinking. There have been very few studies on clothing symbolism described in novel.

This study tried to clarify symbolic characteristics of clothing by analyzing clothing symbolism described in master pieces of Charles Dickens (1812-1870), who was a well-known writer of England. As he has a deep understanding and knowledge on clothing, his novels are abundant in symbolic images of clothing. Five novels which are considered the most representative and excellent in clothing description among Charles Dickens' works were analyzed. They are Oliver Twist, Christmas Carol, David Copperfield, A Tale of Two Cities, and Great Expectations.

A framework of analysis was constructed, which was composed of 1) psychological aspect 2) social aspect 3) supernatural aspect and 4) demographic aspect. Psychological aspects such as temper and disposition, ideology, aesthetic attribute, mood and emotion were symbolized into various clothing behaviours. For social aspect, clothing symbols were used to stand for the wearer's occupation, occupation role distances, the authority of a character, and stratification in this novel, and social mobility and the changing role distance were also revealed through the changing clothing. Various and changing contexts from everyday life to special events were symbolized by clothing. Clothing symbolized a supernatural being such as the ghost. Demographic aspect including marital status, age, sex, and nationality were shown by clothing, too.

Especially, social aspect of clothing symbolism were found more abundantly in Charles Dickens’ novels than in others' because he was a real humanist who concerned about all kinds of social problems in his age. There is little difference between the clothing symbolism expressed in his novels and that in modern society.

By following a consistent framework, this study was able to analyze systematically the voluminous materials. The result suggests that the analysis of clothing symbol is very important to understand one's behaviour and the social situation, and that it might be possible to study clothing symbolism and social meaning of a historical period by analyzing representative novels.

RETAIL PRO: COMMERCIAL RETAIL SOFTWARE AS A TEACHING TOOL

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As programs emphasize new technology, faculty continue to look for creative ways to introduce technology into class-rooms. Retail Pro, a commercial software package, is used as stimuli to teach merchandising.

Most retail software requires input from users to establish how and when specific functions will be performed and how "setup features" should be designed. By analyzing functions and designing setup features, students are given an opportunity to discuss key retail concepts and management concerns such as purchasing setup, cost structures and inventory tracking methods. Students may also develop inventory matrices, making them more aware of sizing and inventory issues. The generation of purchase orders, receiving vouchers, sales invoices and transfer orders is helpful in understanding inventory control.

While there are many advantages to using commercial software for teaching purposes there are also limitations. Commercial software can be costly, so creative avenues should be sought to locate companies interested in donating software. Using any new software requires time to explore its capabilities and limitations. Because it is impossible to explore all functions of the software before using in the classroom, the instructor must be willing to handle unforeseen complications and operational problems. Networked computer lab settings can also pose unique challenges. There are both opportunities and limitations in using this teaching approach.
MAKING CLASS PROJECTS "REAL": STORE PLANNING AND MERCHANDISING FOR A LOCAL ZOO GIFT SHOP

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Providing students with opportunities for "real-life" experiences prior to graduation can give them skills and confidence that cannot be gained in the classroom. In one such opportunity, students worked with the local Zoo in planning for a new giftshop under construction. Objectives were to: work with a real client (the Zoo) as opposed to a hypothetical client, develop solutions to a real store planning problem, participate in a community service project, and display and present store planning proposals to the public.

During the 3-week project, students designed the giftshop's color scheme, interior materials, displays, storage, and lighting, and suggested merchandise assortments that could be stocked. Students interviewed the Zoo director and current gift shop employees for background information. A store planning textbook, architectural plans for the giftshop "shell", slide lectures on store design, guest speakers, and field trips to the Zoo provided students with information to aid them in their store design proposals. The proposed gift shop and the gift shop then in use were documented via photography, physical measurements, and written notes and critically analyzed for function and aesthetics.

The student project culminated in participation in the annual community zoo fund raiser, ZOOBILATION. The students' created two-dimensional presentations of their store designs which were presented in a "gallery show" as part of the fund raiser activities. Participation allowed students to receive feedback from objective observers and increased the students' confidence in oral presentation/defense. Extensive media coverage of the event also increased student interest and enthusiasm for the project.

COMPUTER APPLICATIONS OF RETAIL PLANNING, PURCHASING AND CONTROL

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Need and Impact: An understanding of merchandise buying methods is a critical component of preparing students for merchandising positions in retail environments. Retailers use a six-month merchandising plan for developing a financial statement and currently the technology is available.

Objective: The purpose of this study was to provide the student with the opportunity to prepare a six-month merchandising plan using the computer.

Methodology: With financial support from a teaching grant a computer program was developed for a six-month merchandising plan. Students in an upper division merchandising class used an instruction booklet with directions for using the computer program and past historical data for a hypothetical department store. Students inserted historical data into the computer and performed exercises that would build the components of the six-month plan. Students evaluated, compared, and summarized the data.

Prior to the introduction of the computer program a pretest was administered measuring knowledge of six-month merchandising plans. Six-month merchandising plans were introduced with the components of six-month merchandising plans presented simultaneously by the traditional paper and pencil method and the computer program. After six-month merchandising plans were completed a post test and a questionnaire about computer simulation exercises was administered.

Revisions and Future Implementation: Pretest and post test scores, students perception of satisfaction with the computer program and a comparison of the two methods of presenting six month buying plans were statistically analyzed.
**Objectives:** College students interested in retail careers, are today facing a more complex and challenging job market compared to just a decade ago. In this continuously changing and increasingly competitive employment climate, there remains a wealth of career possibilities for the prepared job seeker yet there are no guarantees that any particular job-search strategy will result in a job offer. Hence, conducting a successful job-search is not a simple nor infinite process that can or should be reserved for or employed the final semester before graduation. Intergrading career planning strategies into the lower division merchandising curriculum ensures systematic career guidance, empowers students in the transfer of career planning strategies from the classroom to the retail environment, and illustrates the fact there is no single rote formula for isolating complex career related information.

**Project/Material Design:** Structured written components were designed to engage lower division undergraduate students in search behavior and reflective thinking about the career preparation process. The project consists of two primary phases: the self-assessment profile and the retail industry inventory. A faculty teamed approach is utilized in the instructional mode. Career planning components of the project are discussed as diagnostic instruments devised to facilitate students in planning and executing a successful systematic progression through the labyrinth called the job market by retail recruiters.

**Effectiveness of Activity:** Upper division students attribute the project to assisting in aligning personal interests and technical skills in: the selection of courses in the upper division, the application of leadership concepts in extracurricular activities, the inclusion of related employment experience during their academic study, and the clarification of career focus after graduation.
PROFILES OF SMALL BUSINESS APPAREL RETAILERS: THE CASE OF SUCCESS VERSUS FAILURE

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Despite the benefits of small business, current research suggests that between 50 to 80 percent of all businesses will fail in their first six years of operation. These figures attest to the difficulties small business owners have in establishing and maintaining successful business operations. This exploratory investigation was under-taken to gain greater insight into the practices and perceptions of successful and failed small business apparel retailers.

Study participants consisted of 182 discontinued small business apparel and accessory retail owners.

Data were collected through the use of structured telephone interviews. Information collected during the telephone interviews addressed selected demographics and operational profiles. Telephone interviews were also used to determine reasons for business discontinuance.

Overall, 130 (71.4%) of the 182 previous businesses were classified as "failed" businesses and 52 (28.6%) were determined to be "successful". In comparison to successful business owners, failed business owners were significantly less likely to be able to specify their classification; reported fewer full and part-time sales people; owned a business with a shorter customer drawing radius; were more likely to recognize the importance of adequate working capital; were more likely to encourage the use of outside information sources and professional advisors; and were less likely to recognize the importance of pervious retail experiences prior to business ownership. An outcome of this exploratory investigation is the generation of hypotheses to be further tested, based on the study findings, in future small business research studies.

Reference:
AN ANALYSIS OF BUSINESS SITE SELECTION FACTORS OF SMALL BUSINESS RETAILERS

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When assessing the potential of individual sites, retailers must take into account many location considerations. The objective of this research was to (1) identify site selection factors important to small business retailers when establishing a business, and (2) examine the relations between importance of site selection factors and ratings of business site locations.

Method. The sample consisted of 182 past small business apparel and accessory retailers. Data were collected through a self-administered, original, mailed questionnaire. Based on Lewison and DeLozier’s (1983) principles of site evaluation, respondents were to indicate on a 5 point Likert-type scale how much importance was placed on the principles of interception, cumulative attraction, compatibility, and accessibility when establishing their business.

Results and Conclusion. Business site selection items were analyzed through principal components factor analysis. Two factors accounting for 69.6 percent of the explained variance were identified. Factor 1 identified loadings ranging from .93 to .57 (Cronbach's alpha = .96) for 9 items that primarily related to the principles of accessibility. Factor 2 identified 7 items with loadings ranging from .84 to .58 (Cronbach's alpha = .96) for nine items that primarily related to the principles of interception, cumulative attraction, and compatibility.

Factor 1 and Factor 2 were then tested with a multiple regression procedure. Regression analysis indicated that the importance placed on Factor 1 in establishing the business was not related to the business site location rating. However, Factor 2 was significantly related to rating of the site location. Specifically high levels of importance placed on items related to the principles of interception, cumulative attraction, and compatibility when establishing the business resulted in higher ratings on the business site location. These findings are of use to small business retailers, educators, and small business support personnel in aiding in the decision making process related to locational considerations.


CUSTOMER RETURNS IN CATALOG SHOPPING FOR APPAREL: SATISFACTION WITH APPAREL FIT AND MEANS OF FIT ASSESSMENT

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Numerous indicators show that as consumers get richer in income and poorer in time, they become willing to pay more for quality and convenience, a situation that renders a favorable business environment for catalog retailing. Recent trends, however, show a slight decline in patronage for general catalog retailers. Furthermore, many catalog retailers identify customer dissatisfaction and returns as serious deterrents to the profitability of their business. Although dissatisfaction with apparel fit has been characterized as one of the most prevalent reasons for returns, no published research specifically investigates catalog shopping to determine how satisfaction with apparel fit relates to patronage, returns, or customers' means of resolving problems related to apparel fit.

A survey was administered to a sample of 121 female consumers. The result of a Pearson Product Moment Correlation analysis indicated that the respondents who tend to be less satisfied with apparel fit in catalog shopping more frequently returned merchandise purchased from a catalog ($r=-.25; p<.01$). Also, the correlations between the respondents' general satisfaction with apparel fit and the extent of their returns in apparel catalog shopping was significant ($r=-.21; p<.05$).

Although the problems related to apparel fit are somewhat innate to apparel catalog shopping because customers cannot try on the garment before purchasing, these problems can also be attributed to the lack of a nationally standardized sizing system. Until such a standardized system becomes available, apparel catalog companies need to work hard toward alternatives: maintaining a higher level of quality control in sizing, developing more user-friendly size charts, providing more measurement data, having more detailed information or help available to customers upon request, and, most importantly, making customers aware that these means are readily available to them.
TAIWANESE AND U.S. STUDENTS IN A U.S. UNIVERSITY: EVALUATIVE CRITERIA FOR PURCHASING LEISUREWEAR

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The objectives of the study were to identify selection criteria for apparel purchase by U.S. university students and Taiwanese students, compare these two groups in terms of selection criteria, and finally analyze the findings for market implications. The sample consisted of 126 U.S. students and 105 Taiwanese students at a midwestern university. Most Taiwanese students participating in this study had lived in the United States between one and four years.

The students were asked to rank the relative importance of nine criteria, and they were required to rank the factors under each criterion as well. The results showed that the Taiwanese and U.S. students had similar rankings for the criteria. The Taiwanese students ranked the purchasing criteria in order as: price, style, quality, size/fit, color, brand, fabrication, country of origin, and media exposure. The U.S. students ranked the criteria as follows: price, size/fit, style, quality, color, fabrication, brand, country of origin, and media exposure. Price was perceived as the most important criterion in both groups. The Taiwanese students thought "on sale" to be the major incentive toward purchase. The U.S. students, however, considered "reasonably priced" as the primary concern. As far as color was concerned, Taiwanese students preferred bright-colored leisurewear, while U.S. students preferred dark-colored leisure clothing.

Given the potential for wide differences between U.S. and Taiwanese students, it is noteworthy that relative rankings of criteria were as close as they were. Global communication plays an important role to "shorten" mental distances among people in areas such as attitudes and life styles, which can help explain why these two groups of consumers exhibited similar rankings of evaluative criteria for purchasing leisurewear.

On the other hand, this research provides implications for international marketers. It is necessary to segment regional markets with regard to different countries' consumers, especially for different cultures. It is recommended that marketers provide appropriate, but sometimes different, product attributes to meet various consumers' preferences.

EVALUATING THE USE AND UNDERSTANDING OF CARE LABELS AMONG COLLEGE STUDENTS

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The objectives of the study were (a) to identify college students' general use of care label information and (b) to evaluate their level of understanding by conducting content analysis of care label information. Two-hundred thirty-eight students participated in the study. One-hundred fifteen (48.5%) were female and 123 (51.7%) were male.

Data were collected via a questionnaire developed by the researchers. The first part of the questionnaire focused on college students' use of the care labels. In reviewing the responses, it was found that: (a) Participants were least likely to read care labels when they buy clothing (51.3%) than when they wash (80.1%), dry (68.3%), or iron (51.7%), (b) approximately 70% of the students felt confident in understanding the instructions in the label. The second part of the questionnaire, consisting of 20 multiple choice questions developed by using the FTC's 1984 Writing a care label manual, was to examine the understanding of instructions on care labels.

Results showed the participants had a limited understanding of the instructions of the labels. The average score was 12.5 out of 20 possible points, which suggested that they understood 62.5% of the instructions correctly. Good understanding existed with such instructions as Tumble Dry (88.5%), Dry Flat (85.5%), Use press Cloth (80.2%), Line Dry in Shade (77.3%), and No Wring (72.6%). However poor understanding was found for seemingly simple instructions like Durable Press Cycle (42.6%), Hand Wash (36.1%), Machine Wash (34.5%), Wash Separately (52.6%), and Drip Dry (55.6%).

Also null hypotheses were examined to determine the relationship between respondents' level of understanding and selected demographic data. The results showed that gender and major were significant discriminating factors: (a) The female participants understood more of the instructions on the labels than did male participants (p<.01) and (b) engineering major had the lowest level of understanding while human ecology major and general studies had highest level of understanding (p<.001).
SITUATIONAL INFLUENCES ON APPAREL STORE CHOICE

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When consumers buy apparels, they may be influenced by their life style, social-psychological characteristics, and situations in relation to purchase. Recently, situational influences on apparel buying behavior was empirically investigated, and many researches in marketing proved inconsistencies in behaviors across various situations.

The purpose of this study is to investigate the effects of perceived risk, store attributes, and buying situations on apparel store choice behavior. Situational elements in this study are gift versus self-shopping and time pressure.

Data were obtained from 388 employed women randomly selected living in Pusan. A questionnaire was developed based on the previous researches. Data were analyzed by discriminant analysis, analysis of variance and t-test.

Results of the study demonstrated that situational attributes can influence apparel store choice behavior and store attribute saliencies. When shopping for themselves, consumers tended to be more sensitive to prices and quality, and to visit apparel store of national brand. For gift shoppers, quality and store reputation were likely to become more important store attributes, and department store tended to be more visited. In time-pressure situations, store familiarity and products information became more important to shoppers, and department store are more likely to be visited than no time-pressure situation.

Therefore, female consumers will be changing their store-visit patterns because of the situation, such as time pressure and gift-self shopping. It implies that situational variables can argument prediction of apparel store choice behavior and apparel store attribute rating, and they can assist in segmentation of apparel markets.

FAR EAST CONSUMERS -- FACTORS THAT PREDICT THE IMPORTANCE OF "MADE IN THE USA" LABEL

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Clothing labels provide valuable information. American producers have effectively used the "Made in USA" campaign to compete with imports. With the breakdown of trade barriers and the move towards a global market, this campaign is likely to be adapted to foreign markets as U.S. products vie for global dollars.

**Purpose.** This exploratory study examine interest, use and importance of clothing label information among consumers living in the Far East.

**Method.** Data were collected in Hong Kong (HK) by questionnaires. A non-random sample consisted of Americans, Asians, and Europeans. Demographic attributes were the independent variables. Dependent variables were interest, use, and importance of labels. Crosstabs and logistic regression were used to analyze data.

**Results.** Significant relationships surfaced. Results suggest that natives of HK do not always read labels, Asians are more likely to read prior to purchase and to refuse purchase in the absence of origin information on label. Gender, income, native-country, children, nationality and native predilection were the significant variables.

As people of all nationalities travel and immigrate to different countries, strategies should be developed to encourage consumers to read labels prior to purchase and to use "Made in USA" as a comparative measure when making purchase decisions.
A STUDY ON TRADITIONAL COSTUME OF KOREANS IN YANBIAN, CHINA

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This study is on the Korean traditional costume worn by the Koreans (Chosun-chok) living in China, who moved to Yanbian, China in the 19th century and established their own local government. The purpose of this study is to investigate and analyze the actual wearing status and wearing attitude on Korean costume. The study also aims to explain the reason why they have kept their traditional costume, although they have lived in the foreign country for 100 years.

The survey using questionnaire was conducted. Data were collected from 400 women living in Yanbian by the face-to-face interview. Frequencies, percentiles, mean, oneway ANOVA, x²-test and Scheffe-test for analyses were used.

The major findings are:
(1) Possession rate of costumes: Skirt (chima) and upper wear (chogori) was very high as 70% of subjects had more than one pair of them.
(2) Wearing rate for occasion: Wearing rate of wedding ceremony, first and 60th year's birthday party, new year's day and thanksgiving day, dinner party, picnic was 86%, 92%, 87%, 73%, 69%, respectively. Differences among the age groups were significant. Wearing rate increased with age.
(3) Attitude on traditional costume: Overall attitude was very positive. Positive attitude was increased with age significantly. Image on traditional costume was feminine, beautiful, sumptuous, refined, fashionable and dignified. They took pride in wearing traditional costumes and felt they should hand over this wearing habit to their descendants. Korean express their ethnic identity through Korean's traditional costume. It seems that the reason for high possession rate and high wearing rate is Koreans' pride and good image on their costume.

EIGHTEENTH CENTURY BREECHES IN FIVE ENGLISH COSTUME COLLECTIONS: COLOR, FIBER, FABRIC, AND CUT

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All the breeches at five costume museums in England were studied. The sample of 72 breeches was analyzed based on the color, fiber, fabric, and cut.

Method. Catalog descriptions were recorded. Measurements of the breeches were taken. Front view, back view, and garment details were drawn and all breeches were photographed.

Findings. The frequency of breeches made of light, medium or bright, and dark colors are nearly evenly distributed. Black and brown dominate the color array of the sample. Both black and brown breeches dated late in the century were more frequent than those dated earlier in the century. Very few light-colored breeches were dated as late in the century.

Silk fiber occurred most frequently. Sixty-one of the 70 breeches whose fiber or fabric were specified in the catalog description were silk. Silk breeches may have been saved by owners and descendants more frequently than other breeches. Therefore, it cannot be assumed that silk breeches were more frequently worn than breeches of other fibers. The cut narrowed in back waist fullness and in leg circumference as the century progressed. Breeches tended to be longer in overall length late in the century as compared to early in the century. As the century drew to a close, dark colored, snugger-fitting breeches, reaching several inches or more below the knee were in use. Light colored breeches, of leather or fabric, are more evident in paintings of the period and in historic costume literature than in costume collections in England.

Conclusions. Paintings of the period suggest that light-colored breeches may have been worn late in the century more frequently than this sample indicated. Additional data should be collected from primary sources in England such as letters, diaries, and merchant records to compare with the extant artifacts in museum collections.
Differences between wood and copper printing technologies are not always easy to distinguish because, with adaptations that are seldom acknowledged in popular references, they can produce very similar effects. However, with careful examination, printed dress fabrics can yield important information to an informed examiner.

It is possible to scrutinize a fabric to isolate clues offered by the method of manufacture. By comparing the researcher's examples with examples from primary and secondary references and with descriptions of the printing processes, the requirements of a given process may be related to the appearance of a print. This makes it possible to set tenable date parameters for the object, before which the effect could not have been achieved.

This research project is based on over 300 photographs taken by the researcher with color slide film, appropriate lighting and a set of close-up lenses, of fabrics in period garments from costume collections in three institutions: the College of Human Ecology at Cornell University, the New York State Historical Association at Cooperstown, and Old Sturbridge Village at Sturbridge, Massachusetts. Garments from the researcher's private collection were also included in the survey. Because few garment examples were found for the earliest dress prints, some patchwork examples were included in the survey.

For each garment, a data form was completed which includes a sketch of the garment, notes of observations about its printed design, a visually matched color swatch made with colored pencils, and a print of the slide.

The photographs, along with diagrams of printing machinery drawn with AutoCad by the researcher provide visual support for descriptions of major printing methods of 1800-1860 as derived from major period and current references.

In my undergraduate 19th and 20th century history of costume course, I always require students to complete a research project--primarily using costume history books to investigate the history of a particular item of dress. When requiring secondary sources, I have found that students usually regurgitated the information they read, incorporated lots of direct quotes, and did very little analysis. Over Christmas break 1993 I devised a new project which would incorporate the use of 20th century primary sources (i.e., Vogue, Harper's Bazaar) requiring the students' own analysis. The project was limited to primary source research in the 20th century to provide the same time frame for all students. My overall objectives were: 1) to help students research and analyze information independently and 2) to require students to examine and analyze the history of an item of dress through primary source research.

I explained the project the first week of the quarter. By the end of the second week students had to select an item of dress to research; they had to review costume history books to determine the earliest popular use of the item. Then students began their research of primary sources. Students were instructed to begin at the earliest occurrence of the item and to continue researching it to its current use.

At the end of the quarter, students turned in a written summary along with their notes, visuals, and a bibliography. They presented their findings to the class in an oral presentation supported by visuals.

Overall, students revealed a greater depth of analysis on the evolution of a style than they had before. I will use this project again during fall quarter 1994 with the following revisions: require in-class time on research to encourage all students to begin the primary source research earlier in the quarter, and include a session with the reference librarian to acquaint the students with the primary sources available.
Durable press and related finishes have had a significant impact on the textile and apparel industry in this century. Durable press products are present in historic collections and pose problems in storage and handling including brittleness, formaldehyde release, yellowing, chlorine retention, and discoloration. Our purpose was to identify chemical compounds used in durable press finishes to address problems in conservation of twentieth century costume and textiles in museum collections.

We reviewed patent literature from 1926 (issuance of the first patent) to 1993 for durable press and related terms describing the finish. We focused on compounds and mixtures used to create durable press finishes and on comments related to performance of a specific finish.

We identified classes of compounds used to produce the finish and identified significant trends in patents issued. In the 1930s and 1940s patents focused on a few compounds and processes with little identification of significant changes in fabric performance other than crease resistance. The greatest number of patents were issued in the 1950s, 1960s, and 1970s. In the 1950s, number of compounds increased, finish side-effects of the compounds and setting both fabric and garments appeared. In the 1960s and early 1970s, attention was focused on improving durability and wearability. In the later 1970s and 1980s, patents addressed environmental concerns, especially related to formaldehyde. Although rayon, cotton, and blends with polyester were most common, patents for wool, polyester, and acrylic were issued.

Patents addressed problems with chlorine retention and formaldehyde outgassing. Objects stored with these items are at risk. Durable press objects may be brittle and weak requiring special care and handling. Conservators need to know which objects are likely to present risks in collections and which require special handling. Knowledge of these finishes will help professionals work with specific items to minimize problems and promote their long term survival. These objects are an important component of material culture. Their preservation is important for us and future generations.
APPAREL ANALYSIS RESEARCH

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Understanding apparel analysis, its processes and implications, may be accomplished by students developing and executing a research project.

Objectives: The objectives of the project were to: (1) examine the effect of price on quality and consumer satisfaction of an apparel item; and (2) survey consumers to determine characteristics on purchasing and wearing habits, and perceptions of quality.

Class/Project Description: Students enrolled in an apparel analysis class developed and conducted the study. Pantyhose representing three price levels were donated by a hosiery company. Students worked on the following:

1) Wear Test Study - hosiery acquisition and tracking, methods and questionnaire development, wear-test participants, questionnaire coding and input, data write-up, report to class, and report to hosiery company.
Method - Three price levels of sheer black, control-top pantyhose were worn 3 times and assessed by each of 8 student participants.

2) Consumer Survey - review of literature, questionnaire development, data collection, data coding/input, data write-up, report to class, and report to hosiery company.
Method - A four-page questionnaire was developed to survey 200 randomly selected female college students concerning panty hose purchasing habits and perceptions of quality.

Results from the wear test project and the consumer survey were summarized and an oral and written report were submitted to the hosiery company donating the pantyhose.

Effectiveness of Activity: The focus of the research project was to encourage critical thinking by students. The students worked cooperatively in both the wear test study and consumer survey. Questionnaire development required them to determine which demographics are "really important," and "are we asking the right questions to obtain the desired information?" Students expressed appreciation in being able to interact with the apparel industry. The research project format, using various apparel items, will continue to be included in the curriculum of this course.

DESIGNS FOR THE NEAR ENVIRONMENT: IMPACT ON INDIVIDUALS

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The teaching strategy involved five classes participating in the planning and implementation of a two-semester project. The purpose was to show how design impacts the individual while providing a long-term research study with input from two content areas.

Instructors in apparel design, fashion merchandising, and interior design identified a problem: to what degree does the design of the near environment influence feelings of anxiety or comfort. The design process involved: 1) designing two environments which reflected freedom and restriction, and 2) designing two garments representing the same. Students held focus groups, pre-tested designs, and administered evaluations to gather information which helped define parameters of apparel and environment design variables. A research class designed a survey to gather data for the dependent variable. Five classes were involved with the project.

The research sample consisted of 95 students on campus. Subjects were asked to wear the two garments and enter the two environments where they completed a survey which measured state-anxiety. Two-way ANOVA was performed by a graduate student using Minitab. Analyses indicated there were significant effects for clothing, environment and the interaction.

Effectiveness. Formative and summative evaluations of the teaching strategy were positive for all students and faculty involved. Students were part of the process at all levels and gained an appreciation for research and for the content of other classes.

Followup. Next year's apparel and interior design classes will develop a similar project to determine clothing and environmental effects on performance.
EXPLORATION AND INNOVATION
IN TEXTILE DESIGN LAYOUT

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The initial teaching of principles of layout for textile design to students at the college level can be laborious, resulting in few projects to critique over the duration of a course. A typical method of teaching layout involves instruction in drawing motifs rendered in a particular style and arranged in a pattern to create a balanced effect. By employing the use of a photocopier machine (with enlarging and reducing capabilities), the students eliminate the drawing of motifs at this stage and are thus able to concentrate on the principles of layout design. They achieve the objective of learning how to create a variety of textile design layouts in a short time.

The instructor provides students with photocopies of copyright-free motifs, in different sizes. Students are instructed to cut them out quickly, without regard to precision. Upon viewing several examples of printed fabrics of a particular layout, they are instructed to arrange their motifs in a similar manner and to tape the motifs to inexpensive newsprint paper. All of the layouts are immediately critiqued and corrections made. The students then view other printed fabrics that depict a variety of layouts and create layouts which are similar. These too are critiqued and corrections made. This is followed by instruction in drawing of motifs, so students can be entirely original in their approach to creating textile designs.

The instructor has applied this teaching strategy since summer, 1992, and has discovered that students learn the principles of textile design layout quickly, while gaining an understanding of aesthetics of good design.

VIDEOTAPED PORTFOLIO PRESENTATIONS:
A MOCK JOB INTERVIEW

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One of the goals of students majoring in apparel design is to develop a portfolio and prepare to deliver a portfolio presentation in the form of a job interview. Job interviews can be anxiety-producing and students generally do not have an opportunity to practice a professional presentation. Students often experience great difficulty in sharing information about themselves and do not realize that often they exhibit nonverbal communication which can distract from the effectiveness of their interview. Visual feedback can be used to improve their presentation and instill confidence in the student.

The purpose of the project was to offer practical experience in presenting a professional portfolio in the form of a mock job interview and provide visual feedback via videotape. An effort was made to duplicate an interview setting. The objectives were for each student to participate in (1) a videotaped mock job interview, (2) a private critique and evaluation of the mock job interview, and (3) a written critique of each students performance.

During a required conference at the beginning of the semester, the students were asked about their career goals and were informed of the requirements of the mock job interview. The mock job interview was scheduled for the end of the semester and would be formatted as if the students were interviewing for a job. The portfolio presentations included brief backgrounds of the students academic careers, design philosophies, career interests, and information about their design projects. Each student viewed and critiqued their performance. The results of the written evaluations were also discussed with the instructor. Evaluation criteria included delivery, subject matter, visuals, and general effectiveness.

The project was evaluated using an instructor designed evaluation form. The students felt that the project objectives were met, providing a valuable learning experience.
AN INNOVATIVE STRATEGY FOR TECHNICAL INSTRUCTION

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In order to comply with established standards and guidelines for interior design accreditation and certification, the curriculum in the clothing, textiles and interiors department of this university was recently revised. An experimental instructional unit in building and barrier-free codes and standards was introduced as part of a course in interior finishes and specifications.

The unit was presented in classes meeting once a week for five weeks. Content of the unit was organized into five three-hour lessons: fire resistance ratings and testing standards, occupancy and construction type classifications, means of egress, barrier-free regulations, and the code search process. Lesson topics were selected from knowledge categories appearing on the professional certification examination.

Innovative instructional methods included problem-solving exercises, experiential learning and case studies. The importance of textile safety standards was demonstrated in a laboratory presentation by a fire protection engineer. Completion of worksheets systematically developed problem-solving skills; students evaluated occupancy groups and analyzed fire-resistance ratings to determine minimum types of construction. A group project in barrier-free regulations fulfilled affective as well as cognitive objectives; teams of students equipped with tape measures and a wheelchair completed accessibility checklists for selected campus buildings. An individual project required the completion of a comprehensive code search case study which demonstrated the students' mastery of the unit's content.

The acquisition of technical knowledge, a critical vocabulary, and problem-solving skills prepared students for upper-level design classes and entry level employment. The worksheets, experiential learning and case study techniques described in this curriculum would be appropriate educational strategies in many other courses, particularly those of a technical nature where traditional methods have typically been employed.

PROFESSIONAL PORTFOLIO DEVELOPMENT: CREATING THE FOUNDATION

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Graduates and students seeking positions in product development, merchandising and design must demonstrate an thorough understanding of product line development and the ability to produce color stories, illustrations, specifications and presentation boards. Mastery of these skills is communicated through the professional portfolio. This project was designed to teach rendering, color story/theme board development and product line development in a format which would result in an effective professional portfolio. Specifically, objectives of this project were to: 1) Produce a portfolio suitable both for interviewing and as foundation for future development. 2) Develop skill in creating color story/theme boards, product designs, specifications, presentation renderings and portfolio presentations and 3) Enhance understanding of the product line and its development.

Each student in Visual Communication for the Textile Product Industry developed three mini lines of textile products as a term project. For each line, students produced 1) a color story/theme board and 2) a stylized, promotional type of illustration. For each item in a line, students produced 1) a specification rendering with swatches, and 2) a detailed presentation rendering. At midterm, students presented their working sketches and fabric choices to the class for review and critique. As the projects developed, the instructor periodically reviewed progress individually with each student offering direction and constructive criticism. Finally, the completed project was compiled and formally presented in a portfolio.

Quality of the projects and resulting portfolios continues to be exceptional. Developing a structured portfolio early in a student's program encourages maintenance, improves quality, and is applicable to all areas of emphasis; design, marketing, and merchandising. It assures that students have work ready to show if opportunities arise for internships or part time positions. Because the project was developed with industry input, it has been particularly rewarding to hear students report positive feedback received during interviews. The project continues to be revised and improved based on comments from these industry interviewers.
AN EVALUATION OF POLICE OFFICERS' BICYCLE UNIFORMS

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Since 1988, a trend in law enforcement has been the implementation of police officers' bicycle programs. Today, more than 500 police departments, nationally, utilize bicycle patrols ("Lock Smart," 1992). League of American Wheelman indicated little has been done to look at officers' clothing needs (1991).

In 1993, a bicycle patrol program was initiated on the university campus. The purpose of the study was to investigate police officers' satisfaction with their uniforms during the first six months of the program.

A questionnaire was administered to six patrol officers, both male and female, at three months and six months. Administering questionnaires at predetermined periods allowed the researcher to evaluate overtime officers' satisfaction with their bicycle patrol uniforms. After each questionnaire, photographs were taken of any visible clothing problems identified by the police officers.

Findings indicated the officers found the bicycle uniforms non-irritating, comfortable, wrinkle free, machine washable, and easy care. Officers also indicated the uniforms were not absorbent or durable. Problems with the uniforms included shirt and short snagging and garment design problems. This would seem to indicated the need for manufacturers to reevaluate fabric and/or design of bicycle shirts and shorts. Findings were reported to manufacturers of bicycle patrol uniforms. This type of research is an example of how professionals can interact with communities to solve real problems, large and small, in order to improve the quality of life of individuals.


CAD USE IN ART DECO INSPIRED HAND-KNIT GARMENT PRODUCTION

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The purpose of this study was to use three CAD software packages (AutoCAD, ApparelCAD, Animator Pro) in designing and producing a line of hand-knit garments inspired by Art Deco motifs. From a content analysis of 4,753 Art Deco objects, four prominent motif categories emerged. They were geometric, images of women, organic and oriental. Two motifs from each category were selected to be used as the focal point on a hand-knit garment. The design collection consisted of eight ensembles.

Pre-production design, motif placement, and color combination was done using ApparelCAD and Animator Pro software. The knitting and crocheting processes were documented and translated into instructions for future designers who might want to replicate this studio research.

A variety of production complications having to do with tangling and stretching of the yarn is discussed by the designer. Suggestions for further research include: 1) a wear study to evaluate the dimensional stability of each garment during and after wear and laundering, 2) the use of CAD to create production grids for Aran or Fisherman knit sweaters.

The collection was presented to the public in a runway show. The complete documentation of this research includes photo-documentation of Art Deco sources of inspiration, knitting processes, colored knitting grid patterns for each garment, knitting instructions, and photographs of each garment.
Justification: The potential impact of the quality of our water on human health and well-being is of great concern to many families. When present in certain amounts, dissolved minerals and suspended materials cause problems. Many aquifers have highly mineralized water that produces laundry and cleaning problems. Water quality affects the life of household equipment, clothing, and other textile products. Research indicates that the cost of increased repair of equipment and replacement of textiles, equipment, and plumbing caused by hard or acid water is a significant economic factor.

Objectives: 1) To inform individuals of the cleaning problems that exist due to poor quality water, 2) To suggest products and practices individuals can use to solve existing and prevent future laundry problems, and 3) To make individuals aware of the equipment available to solve most water quality problems associated with laundering.

Program Development Strategy: Attendance is generally low at public programs related to household water quality, requiring alternative methods to provide this information to clientele. Exhibits are in demand for use by Extension agents at Farm Shows throughout the state. Funding received from the South Dakota Cooperative Extension Service and USDA Extension Service Improved Program Support for Water Quality program was used to prepare exhibits for use by county and state staff. Clientele in selected counties were interviewed by the Clothing and Textiles Specialist to determine the most prevalent problems. Publications on water hardness, stain removal, and treatment systems accompany the exhibit.

Evaluation: Number of people reached and number of publications disseminated will be recorded. One-on-one contacts with clientele will assess additional educational information needed to solve problems.

This newsletter was initiated to provide owners of small apparel-production businesses and those considering starting such a business with business information and a network that they requested. The initial mailing list was developed from clients who called their CES office for related apparel-business information. County Extension agents placed an article in their newsletters as well as in the local newspaper asking interested people to call them.

The newsletter delivers vital market and business-management information to small apparel-related businesses within the state. This industry group represents new outreach for the Kentucky Cooperative Extension Service. Business owners were surveyed to determine which topics they wanted information about. The names of those who returned the survey were entered into a database which created the mailing list for the newsletter. Those on the mailing list are encouraged to submit articles for the newsletter or request topics they want to see addressed. The database, maintained in the Extension Textiles and Clothing office on the University of Kentucky campus, is also used to send other pertinent information to this group.
APPAREL PRODUCT DEVELOPMENT
FOR ELECTRONIC SHOPPING

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In the competitive work environment that faces university graduates today, experiential student projects are critical. To address this need for real-time experience, an Advanced Apparel Production class was developed that requires students to design, produce and market a targeted line of apparel in partnership with a manufacturer. The ten week class is taught annually and begins as an instructor led experience. In the development phase, students select a target market and a manufacturer. The instructor input emphasizes environmental scanning, targeted market research to identify niche markets, and work management through multi-functional teams. The class project reported involved the development of a line of clothing for large size women to be marketed through the electronic shopping network, QVC. The industry partner was Orbit Industries, a $100m women's apparel firm located in Helen, GA.

Class members were assigned to marketing, design or production teams. The market research team examined the women's plus size segment and the electronic shopping matrix for information in support of the development of a line of garments. The design team interpreted features deemed important to QVC buyers, like bold prints and two piece outfits into a line. The production team worked with the manufacturer to developed manufacturing specifications and produce and cost all samples.

The industry partner is an integral part of the process. Through a local contractor of Orbit Industries, students were able to have constant contact and input from the manufacturer as the project developed.

In a final presentation the class project was evaluated by the Orbit contractor. As a result of the presentation, the class was asked to present the line to Orbit executives. The class was offered $50,000 by Orbit to put the line in production. One class member was offered an internship with the company. Auburn University faculty were invited to participate in management level functions of the company including market research and sales direction.

TEACHING SENSORY LEARNERS IN AN INTUITIVE LEARNING ENVIRONMENT

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How do sensory (visual and auditory) learners cope in an intuitive learning environment? Intuitive learners learn and think in words, while sensory learners need to hear oral descriptions and see pictures or diagrams of the information before they can comprehend and retain information. Intuitive learners can often comprehend information by reading the text without listening to the lecture. Intuitive learners usually do well in the college setting and often become professors themselves. Since it is easier to teach the way we learn, many instructors use the textbook, packets of readings, and/or handouts as the primary source of information. This serves the intuitive learner, but does not adequately address the needs of the sensory learner. Sensory learners are often more dependent upon educational stimulus from an instructor than intuitive learners. Thus, sensory learners are handicapped more than intuitive learners when they miss class (for whatever reason). Therefore, it is important to help students discover their learning style at the beginning of the course and stress the importance of attendance for visual and auditory learners.

Visual learners learn primarily from illustrations and think in terms of pictures, then they have to translate the pictures into words. This translation process can be a problem on written tests with a time limit. The visual learner has to translate the words to pictures, determine the answer, and translate the answer back into words. To better meet the needs of visual learners, I allow students to draw diagrams or outlines on the paper before they write the answer. Also, I am trying to provide more illustrations in lecture, lab, and exams.

Auditory learners need to hear the information and often have to resort to reading the text or test question aloud and thinking aloud, but this may annoy other students in the class. To accommodate the audio learners, I allowed self-selected audio learners to listen to a pre-recorded version of the test in another monitored room and record their answers on the regular typed version of the test. Both groups of students finished the test at about the same time, but the audio-test participants benefited from the even pace forced by the audio-taped exam. The audio group verbally indicated that their mind did not wander as much during the exam and that they understood the questions better from hearing them. After grading the exams, I noticed that all the audio test takers had significantly higher scores than their previous average for exams. Another benefit of this audio-testing was their higher self-esteem.
FABRIC-CAUSED DIFFERENCES IN HUMAN SKIN TEMPERATURE AND HYDRATION

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Placement of textiles over human skin can affect an individual's skin hydration status and skin temperature. Increases in skin hydration and temperature may cause dermal irritation and thermophysiological discomfort. This study examines how human skin responds to different textile fibers and fabrics. Eight fabrics, each tested wet and dry, were placed on 18 subjects' forearms. Fabrics included: polyester/cotton plain weave, cotton rib knit, cotton twill weave, polyethylene nonwoven, PTFE coated nonwoven, acrylic plain weave, wool twill weave, and nylon tricot knit.

Skin hydration and temperature readings were taken before and after removal of each fabric (40 minutes). The objectives of the research were: 1) to examine how eight different types of fabrics influence human skin temperature and skin hydration; 2) to examine whether dry and wet fabric affect human skin temperature and hydration differently; and 3) to examine the interaction of treatments and fabrics on human skin hydration and temperature.

Among the 8 fabrics, polyester/cotton, cotton twill, polyethylene and acrylic had higher skin hydration measurements for the dry treatment; whereas when wet, cotton knit, cotton twill, PTFE coated, and wool had higher hydration measurements. MANOVA results indicated a significant difference in skin hydration for the wet and dry treatments, as well as significant differences for the interaction of treatments and fabrics. For skin temperature, there were no significant differences between treatments, among fabrics, or for the interaction of treatments and fabrics.

EFFECT OF YARN TYPE AND TWIST MULTIPLIER ON THE SELECTED FABRIC PROPERTIES OF OPEN-END AND RING SPUN YARN FABRICS

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Open-end (OE) yarn was developed to meet the requirements of weaving and knitting technology. The fact that OE spinning can produce a high quality yarn more economically than ring spinning has instigated the interest of textile researchers. It is hypothesized that the difference in yarn spinning methods and yarn structure of OE and ring spun (RS) yarns would have influenced the performance properties of fabrics woven with these two yarns. Therefore, this study investigated the effect of yarn types and twist multiplier (TM) of OE yarns on air permeability, absorbency, flexural rigidity, and coefficient of friction.

Test samples consisted of 16 OE yarn fabrics with systematically controlled warp and filling TM and three sets of comparable OE and RS yarns of 65/35% polyester/cotton fabrics. The performance properties were measured by standard ASTM and AATCC test methods. A two way ANOVA test revealed that the effect of warp and filling TM had significant effect on all four fabric properties investigated. Sheffe's test indicated that higher TM (4.0, 3.75) of OE yarns contributed to significantly higher air permeability and coefficient of friction and lower TM (3.50, 3.25) yielded better absorbency and stiffness of test fabrics.

As to the effect of yarn type, the test fabric woven from OE yarns in both warp and filling displayed higher absorbency, whereas that woven from RS yarns in both directions displayed higher air permeability, coefficient of friction, and flexural rigidity than their counterparts.

This investigation indicates that the optimum level of fabric performance properties related to comfort can be achieved by careful selections of yarn variables for specific end-use situations. Future study should explore wider range of twist levels and yarn types than those investigated in this study. The knowledge gained would benefit textile field and consumer.
EFFECTS OF THE ADD-ONS ON THE WEAR PERFORMANCE OF PEG-TREATED ATHLETIC SOCKS

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Temperature adaptability of polyethylene glycol (PEG)-treated fabrics was expected to be applied to clothing for environmental changes since PEG as a phase change material imparts thermal storage and release properties to textiles.

The objectives of this study were: 1) to evaluate the effects of PEG add-on on the objective wear performances and subjective sensations of socks, 2) to determine the effects of PEG add-on on the comfort zone based on microclimates and overall comfort sensation.

Acrylic athletic socks were pad-cured with PEG resulting in 20 and 50% add-ons which were minimum showing thermal storage and release properties and maximum showing stiffness tolerable for socks in the pretest. Six male college students performed a subsequent exercise wearing two different socks on each foot in a conditioned environment (14°C, 65% R.H., 0.25 m/sec air velocity). As objective wear performances, microclimate temperature and humidity in socks were measured by a thermohygrometer and the amount of residual sweat in socks was obtained after the wear period. Subjective sensations included thermal sensation, wetness, softness, fit, and overall comfort using previously identified scales.

For the objective assessments, ANOVA indicated the 50% treated socks showed significantly less changes of microclimate temperature and humidity (p<.05) than other two kinds of socks in every period. And the amount of residual sweat in 50% treated socks was less than that of others. These results were considered due to the effect of thermal adaptability and the improved moisture transport properties of treated fabrics with the higher amount of PEG add-on. Of subjective assessments, while thermal sensation, wetness, and fit were not significantly different, 50% treated socks were accepted stiffer in softness sensations and more comfortable in overall comfort assessment than others (p<.05). Comfort zone was extended in treated socks surporting PEG treated socks were felt comfortable in wider interval of microclimate temperature and humidity.

Results suggest that treatment with PEG add-on 50% on acrylic knits provided better objective wear performance and it caused more comfortable sensation. Therefore it is thought that high add-on of PEG-treated apparel is more effective for wearer's comfort.

APPAREL STORE AND RESTAURANT ENTREPRENEURSHIP: AN INTERDISCIPLINARY, MULTI-CULTURAL COURSE

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The overall objective of the project was to develop a course exposing students to entrepreneurial concepts. Because of the increasing need to understand other cultures, a major focus was on cultural differences and how this affects operation of a small business in today's society. Specific course objectives related to students included (a) the development of a feasible business plan which incorporates course concepts from previous classes in the curricula, (b) self assessments of their abilities to own/operate a business, and (c) increased awareness of the role of entrepreneurship in the economy. The course was developed by investigators from a land grant university and two historically black universities and funded by the United States Department of Agriculture.

Course design and instructional materials were developed in a collaborative effort to facilitate the differences among the three schools in size, location and student diversity. Ten on-site videotaped interviews with entrepreneurs were incorporated to reinforce each major course concept. The video lectures provided an avenue for industry involvement and visually demonstrated the ethnic diversity of successful entrepreneurs. Six video and four written case studies were created to strengthen students' analytical skills. Computerized budgets including a start-up budget, one, three, and five year pro-formas, and a feasibility plan were also developed. A computerized merchandise assortment plan assisted apparel students in formulating effective inventory plans.

The course will be taught fall 1994 at all three institutions. Pre-and post-tests will be conducted to measure students' readiness for starting a business, thus, the effectiveness of the course. Data will be correlated with students' ability to effectively create business plans. Teaching evaluations will be completed to measure the effectiveness of teaching methods. The project will culminate with an entrepreneurial conference where students from each institution will share business plans with academic and industry experts.
CUSTOMER SERVICE TRAINING BLITZ

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Customer service is a top priority in the current retail environment. Thus, students must understand the concept of customer service and have the ability to communicate this concept to others.

A customer service training project was designed for use in an undergraduate promotional strategy course. The objectives were to increase students’ awareness of customer service strategies and to provide an opportunity to implement and evaluate strategies.

Student teams developed a 30-minute customer service training session for sales associates in a hypothetical retail store. Students used hands on activities, handouts, and visual aids to enhance the effectiveness of their sessions. Topics were selected by the student teams and ranged from handling irate customers to identifying customer needs. Each team played the role of trainer, sales associate, and management. Thus, students were able to view and evaluate the presentations from a variety of perspectives.

A resource packet including materials from a wide range of trade and academic publications was available for student use. Customer service videotapes were also included in the resource packet. Students were encouraged to identify additional materials for use in their presentations.

Each session was evaluated by the participants (sales associates) and the management team. In addition, a self-evaluation was completed by each team. An outline of the presentations including activities planned to involve participants, visual aids, handouts, and documentation of resources used was reviewed by the course instructor. Students assisted in the development of all evaluation materials.

Students were creative in implementing their presentations and used costumes, mood music and props from local stores. Activities included audience role play and hands on interaction with new products. Students ratings of the project were high.

FIT COMPARISON OF CHI PAU CUSTOM DRAFTED & SIZE GRADED

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The Chi Pau is a traditional garment worn by Chinese women for formal occasions. This close-fitting one-piece dress was traditionally made by a tailor or one's mother. However, with fewer people having the skill to make the Chi Pau, the cost for a custom garment has increased resulting in limited use.

The purpose of this study was to investigate the possibility of popularizing the Chi Pau through mass production to decrease costs. Specifically, the study compared the fit of the Chi Pau from patterns made by the traditional method of custom drafting and from patterns made by the mass production technique of size grading.

The fit of each of the two garments for each of the 8 subjects was evaluated by three university professors on 16 items using a 7 point Likert scale.

Results revealed that all of the garments made from custom patterns were rated acceptable, while only one of the size graded garments was rated acceptable. It was therefore concluded that producing the close-fitting Chi Pau from size graded patterns adjusted proportionately for three waist and hip variations generally did not achieve an acceptable fit.

The study revealed that the most difficult area of fit for the Chi Pau is the back waist. This was especially true for people with large back hips (seat) and/or a "sway back" posture.

The wide variance in subject height (6'5" to 5'2") caused unacceptable fit due to location of the darts and side seam curve for the waist and hips. To help improve the fit for the graded patterns in the close fitting garment, each size had three different waist and hip circumferences in 1½ inch increments. If these graded patterns also had a variety of length proportions, it was theorized that more of the garments would have been rated acceptable.
IMPROVING GARMENT FIT FOR THE MATURE WOMAN

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Although women over the age of 55 comprise a growing segment of the apparel market, the apparel industry has not addressed specific fitting needs of this group. Ready-to-wear apparel currently available to women in this age group does not fit because of lack of regard by apparel manufacturers for physical changes in body shape and size due to the aging process. The purpose of this study was to modify a commercial pattern based on work by Woodson and Horridge (1990) using grading as a pattern development technique, and to evaluate the accuracy and effectiveness of the modified pattern by measuring fit and comfort on live models.

Computerized grading was utilized to make modifications on the commercial pattern. Basic dresses from a commercial pattern and a modified commercial pattern were made up in muslin. Twelve subjects tried on both dresses and researchers recorded fit data. Subjects also responded to a survey concerning comfort of each dress.

Results of a t-test indicated that there were significant differences between the commercial and modified dresses. Results of a comparison of subjects' perceptions of comfort indicated that comfort perceptions were more accurate for the modified dress than for the commercial dress.

Although the generalizability of the results of this study is somewhat limited by a small, nonrandom sample it was concluded that computerized grading is a quick, cost-effective method of modifying a pattern to meet needs of special markets. Manufacturers may want to target this segment of the market because of rapid growth and large discretionary income.


DESIGNING FOR THE INDIVIDUAL WITH SCOLIOSIS AND LORDOSIS: A CASE STUDY

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Scoliosis (a condition that makes the spinal column curve often affecting rib cage placement and leg lengths) and lordosis (a convex curvature of the spine that causes a sway-backed appearance) can make one's clothing choices quite limited (Cailliet, 1975). Alterations for appropriate fit may be needed or their clothing may feel uncomfortable and visually incongruent to what is considered good fit within our culture.

PURPOSE: The purpose of this study was to create comfortable, well fitted garments for an apparel design student with scoliosis and lordosis.

PROCEDURE: Anthropometric measurements were taken, basic blocks drafted, and basic fitting garments sewn. Numerous fittings and alterations were made to provide comfort and appropriate fit. The student chose to make two fashion garments to test her new slopers: a 1960's type empire dress and fitted slacks. Using her personalized slopers she created these designs by flat pattern techniques.

RESULTS: Completed garments fit the individual comfortably and provided the cultural norms of good fit.

IMPLICATIONS: While the above process is not a mainstream solution to fitting problems for those with scoliosis and lordosis, the personalized slopers have broadened one individual's clothing choices.

ADULT DEVELOPMENT AND THE STATUS OF TEXTILES IN THE TOURIST MARKET

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This study relates adult development to the status of textiles and apparel as souvenirs in the tourist market in terms of: (1) categories of purchases, (2) numbers purchased, and (3) dollars spent for self and for gifts. This study used the conceptual framework of adult development proposed by Levinson (1978).

Forty-two Iowa women, frequent travelers purchasing many souvenirs, were interviewed. Two groups of 21 each corresponded to early adulthood (EA: ages 17-45) and middle adulthood (MA: ages 40-65) of Levinson’s framework. The range of variation in their souvenir-purchasing behaviors differed by occupation, income, education, marital status, and numbers and ages of children.

Souvenir purchases were categorized as: (1) textiles, mass-produced (TM); (2) textiles, handmade (TH); (3) non-textiles, mass-produced (NM), and (4) nontextiles, handmade (NH). Analysis of the data revealed that 28% of the reported souvenir purchases were textiles. T-shirts dominated textile purchases. Although older tourists bought more total souvenirs than younger tourists, their proportion of purchases of textiles actually decreased.

Overall, informants spent the most money for personal souvenirs, an intermediate amount for spouses, and the least for gifts for children and adult friends. In all three categories of gift purchases and in both age groups, the women who had made extensive travel plans spent more than those who had made minimal plans, and bought more personal souvenirs despite lower average incomes.

The sharp increase in souvenir purchases between ages 40-42 coincides with the transitional period between the EA and MA eras of Levinson (1978). Evolution of buying habits in kinds of souvenirs purchased and increased selectiveness with age, which document the changes that Levinson (1978) postulated.

Manufacturers and marketers of textiles, including apparel, should target extensive travel planners. Space for creative ads in travel magazines and brochures should be purchased. Cultivation of travel agents and art- and tourism councils to support textile products and to suggest gift giving and purchase of personal souvenirs should be encouraged.


FINDING A NICHE IN THE PLUS-SIZE MARKET: HEAVY DOLLAR VOLUME APPAREL PURCHASERS

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Growing at a 6% rate since 1990, the catalog industry has continued to be profitable. Paralleling this growth, the plus-size market (size 14 and larger), has been one of the fastest growing segments in the U.S. apparel industry (Simone, 1992). It was hypothesized that the demo-graphic profile, shopping orientations and satisfaction with catalog services offered influence the dollar volume of purchases made through catalogs by plus-size customers.

A mail survey was sent to a random sample of 1,500 plus-size catalog shoppers; 495 useable surveys were returned. Chi-square analysis revealed that heavy dollar volume purchasers were predominantly Caucasian (p<.01), held professional occupations (p<.01), and earned in excess of $50,000 (p<.001). MANOVA and Oneway Analysis of Variance revealed heavy purchasers to be more fashion-conscious (p<.01), credit card users (p<.05), dissatisfied with local retailers (p<.01), more likely to purchase greater quantities of apparel through catalogs (p<.000), and more satisfied with catalog services offered (p<.01) than non-heavy purchasers. These results suggest that this market is receptive to a variety of direct marketing opportunities. Findings may assist retailers in identifying consumer spending patterns. Such information may then be used in developing marketing strategies which promote multiple sale transactions to keep increasing profits.

References
CONSUMER ATTITUDES TOWARD
FASHION ADVERTISING

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The purpose of this study was to assess consumer attitudes toward fashion advertising. A mixed convenience sample of 312 subjects responded to ten color advertisements for a hypothetical fragrance. The advertisements illustrated a female model dressed in four different ways: demure, suggestive, seductive, and semi-nude, and portraying two ethnic groups. Subjects rated each advertisement on 11 items and indicated their opinions about fashion advertising on 27 attitudinal statements.

The subjects preferred the advertisements with the demure models; the least preferred advertisements featured semi-nude models. Responses to attitudinal statements about fashion advertising showed that subjects paid attention to fashion advertisements and viewed them as a good source of fashion information. Subjects agreed that too much sex appeal is used in fashion advertising.

The Analysis of Variance with repeated measures revealed that gender differences were found in some styles of dress comparisons but not all. Between ethnic groups and styles of dress, some differences existed. Three age groups of subjects rated dress styles differently. On appropriateness of dress, gender differences existed in rating the dress style.

Fashion advertisers need to re-evaluate their use of nude models in advertisements geared toward the general public. They should also consider using ethnic models more frequently.

ETHNOCENTRIC CONSUMERS: ARE THEY DEMOGRAPHICALLY DISTINCT?

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Consumer ethnocentrism represents "the beliefs held by American consumers about the appropriateness, indeed morality, of purchasing foreign-made products." (Shimp & Sharma, 1987, p. 280) Research suggests that knowledge of the level of consumer ethnocentrism could be used to customize a marketing mix of foreign and domestic goods. The purpose of this study is to determine: 1) if ethnocentric consumers are demographically distinct, and 2) if demographic variables are predictors of consumer ethnocentrism.

A questionnaire, consisting of demographic questions, an experimental section, and the CETSCALE (Shimp & Sharma, 1987), was administered to 205 students. Purchase intent and price and quality perceptions were determined in the experimental section. Level of consumer ethnocentrism was measured by the CETSCALE (Shimp & Sharma, 1987).

ANOVA results indicated a significant difference in the mean ethnocentrism score between men and women, with women exhibiting stronger ethnocentric tendencies than men. Multiple regression results revealed demographic variables were not significant predictors of consumer ethnocentrism.

This study indicates it may behoove marketers appealing to female purchasers to emphasize the origin of domestic products.

SPECTATOR SPORT DRESS: A HISTORICAL PERSPECTIVE


The spectator has an illustrious history of participation in the pageantry of sport. In recent years, the impact of spectators and their extremes in dress have been a salient factor at team sporting events. The reverberations of the stadium full of flag-waving supporters or the crowd of fans wearing the team's colors have each been the focus of much media attention.

Behind these observations is the researcher's view that history usually does repeat itself. The purpose of this paper, therefore, is to demonstrate the historical precedent for the view that spectator sport dress is not a uniquely contemporary phenomenon. Viewed on a continuum, current dress for spectator sport has been found to represent personal individuality, group conformity or mass uniformity dependent on the nature and emotional impact of the team sport. Such factors were also considered applicable in this research. In the historical perspective, the paper addresses the following objectives to:

1. Summarize the findings from previous research on the dress of spectators
2. Review the nature of spectator dress from a Western cultural perspective
3. Identify the extent and nature of the twentieth-century spectator in America
4. Discuss the impact of the media and the changing dimensions of spectator dress
5. Analyze the influence of the spectator on the sport through their dress
6. Evaluate the precedent for the distinctive symbolic nature of spectator sport dress in light of the historical record

As an interpretive inquiry, the research relies on the assumptions and theoretical perspectives of symbolic interaction which were applied to questions about the common set of symbols used by spectators. As a recognized means of non-verbal communication, spectator dress is rife with meaning about people's social interactions.

Spectators provide the opportunity to apply Blumer's theoretical assumptions about human behavior and the meanings which may be attributed to the clothes they wear currently or wore historically. Conceptually, the research draws upon Stone's work on the meaning of appearance and its application to one of his favorite analogies - games and sport. As a costume historian, the researcher relied upon a visual analysis and systematic review of original works of art and photographic images to provide the historical perspective. The contemporary viewpoint evolved out of field research experiences and direct participant observation, as well as video documentary analysis. A slide presentation supports the findings which show that history does indeed repeat itself.

THREE ERAS OF THE POPULAR COWBOY HAT

Kathleen Kearney

No other item of clothing exemplifies and contributes more to the cowboy "image" than the hat. From its roots as a Spanish sombrero to the contemporary Stetson, the cowboy hat has undergone the same kind of fashion change as other articles of clothing. The history of the cowboy hat was documented through interviews with custom western hat makers, study of cowboy literature, clothing catalogs, photographs, western paintings and sculptures, reproductions of handbills from wild west shows and rodeos, and movies and television shows. Based on shapes of hats, heights of crowns, and widths of brims, there are three distinct divisions in the history of the cowboy hat:

1) During the last thirty years of the nineteenth century, hats were a well established, essential part of a cowboy's attire. By the era of the great cattle drives (1865-1885) the cowboy was an American hero distinguishable by his outfit—a combination of garments that were functional and recognizable. The hat evolved from the early styles vaqueros wore out of necessity, not for fashion. In the early 1870s, Stetson saw the need for a sturdy, well designed felt hat and began manufacturing it. By the 1880s, the cowboy hat was fashion as well as a necessity. Hats had names such as the Montana Pinch or Peak, or the Plainsman, and a cowboy spent as much as a few months wages on his hat. Hats were moderately sized with crown heights of about five inches and brims about four inches. A cowboy often put his personal touch on a hat by creasing the crown to suit himself, and sometimes all cowboys in an outfit creased their hats in the same way as a means of group identification. Without realizing it, a cowboy also shaped the brim of his hat by putting it on and taking it off in an habitual way.

2) The first forty years of the twentieth century was the big hat era. Big hats were the product of rodeos rather than western movies, and as rodeos became a form of cowboy entertainment early in the century, hat crowns became higher and brims wider. Perhaps the larger hat created a more dramatic effect when the wearer was on horseback. Will James recorded the period though illustrations accompanying his books and articles published between 1923 and 1942. Hollywood took the big hat and made it bigger and more prominent for film. The ten gallon hat of the period had a crown of seven inches and a brim of five inches. The large hat made the cowboy seem larger than life-size and helped perpetuate the cowboy image on the movie screen. Hats had distinctive names and shapes; for example, the "Tom Mix" of the 1920s had a round crease on each side of the crown.

3) From 1940 to the present an increase in rodeos, western movies, and television shows such as Maverick and Bonanza made cowboy hats more popular than ever. In general, the big hat dropped out of favor, and hats became more moderately proportioned and reverted closer to nineteenth century dimensions. In the 1950s, Hollywood produced its greatest number of historic films, and costume designers strived for authenticity in their creations for the screen. For a brief period, big hats reappeared with inspiration from the 1980s movie Urban Cowboy. Many variations of hat styles based on height of crown and shape of creases, and width and curve of brim have appeared since 1940. Some hats were given names such as the "Horseshoe," a 1950s model with a flat, dented crown. Today, few authentic cowboys remain, but the cowboy image is intact thanks, in part, to the hundreds of hat wearers who use their hats as fashionable dress.
MENSTRUAL PRODUCT DESIGN AND
WOMEN'S DRESS, 1854 THROUGH 1921

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It has been believed that few attempts were made to develop or market any type of commercial menstrual products before 1921. In order to trace the design development of pre-1921 menstrual products, United States patents granted from 1790 through 1921 were analyzed.

The first menstrual product patent was issued in 1854; from 1854 through 1921, over 200 menstrual product patents were granted. An analysis tracing product design and development trends revealed six types of menstrual products: (1) belts or supporters, (2) menstrual receivers or napkin holders, (3) absorbents, (4) attaching devices, (5) garments designed to protect the wearer's clothing, and (6) vaginally inserted retentive cups. The patent illustrations were examined by the researchers to determine any product development trends. This examination revealed that the prevailing trend in menstrual product design was towards flat, uncomplicated products. Tampons were also patented during this time but were not intended for menstrual use.

In order to determine if the design and development of menstrual products had any apparent effect on changes in women's fashions, the researchers then compared the menstrual products and fashions in women's clothing from 1854 through 1921. Findings from this comparison suggest that the development of commercial menstrual products had little effect on producing fashion changes. In fact, changes in women's fashions influenced menstrual product design, and were the motivation for the creation of smaller, more streamlined products. In particular, changes in the structure and design of women's undergarments, most especially open- and closed-crotched underdrawers, appear to have had a major impact on menstrual product design.
X-RAY DIFFRACTOMETRIC MEASUREMENT OF MICROCRYSTALLITE STRUCTURE OF COMMON MILKWEED AND INDIAN HEMP FIBERS

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X-ray diffractometric (XRD) study of cellulosic fibers reveals information concerning the microcrystalline structure of those fibers, including features such as the crystallite lattice parameters (a,b,c), crystallite size, and percent crystalline component. While most XRD work has dealt with commercial cellulosic fibers such as cotton and flax, two other cellulosic fibers were studied in this work in an effort to obtain a baseline with which to compare archaeological fibers and to explore the effects of degradation in the archaeological context. Common milkweed (Asclepias Syriaca) and Indian hemp (Apocynum Cannabinum), although not economically significant, produce strong, long, and fine fibers, and were used extensively by prehistoric people of eastern North America in the production of textiles.

A procedure developed by Foreman and Jakes* (1993) was employed in the calculation of crystallite size and percent crystalline component. Lattice parameters were determined from characteristic spectral peaks. The crystallite sizes of common milkweed and Indian hemp fibers were found to be of similar magnitude while they differ significantly from that of flax fibers. Also, the crystalline components of both common milkweed and Indian hemp were found to be smaller that of flax fiber. The differences i.e., smaller crystallite size and lower amounts of crystalline component, could be due to the higher content of lignin and hemicellulose in the common milkweed and Indian hemp.


THE ROLE OF HUMIDITY IN THE OZONE FADING OF ACID DYES ON NYLON

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Nylon 6, 6 carpet yarn dyed with five commercial acid dyes was exposed to 0.2 ppm ozone for 1, 2, 4, 8 and 12 days in an Atlas Gas Exposure Cabinet. The three levels of humidity were 88 ± 2% (AATCC high humidity test 129), 65 ± 2% (AATCC low humidity test 109) and 76 ± 2%, which is the midpoint between the high and low humidity tests. Three hundred samples were prepared for ozone exposure (3 humidity levels x 5 exposure times x 5 dyes x 4 replicas). Following exposure, color change was measured with a Macbeth spectrophotometer in terms of CIELAB, D_s light source, and a 10° observer. A 3-way ANOVA was conducted to test for main effects and the interactions between level of humidity, time of exposure, and dye type.

Four of the five acid dyes exhibited significant color change after two days ozone exposure time and continued to show progressively more color change from 2 to 12 days exposure. The fifth dye had no significant color change throughout the 12 days exposure time. As humidity increased from 65 to 76 to 88%, the amount of color change also significantly increased, particularly from the medium level (76%) to the high level (88%).

The findings of this study confirm the assumption that ozone fading of acid dyes on nylon increases as the level of humidity increases. It is believed that the humidity helps to open the porous fiber structure, thereby aiding diffusion of the dye from the center of the fiber to the surface. The dye exhibiting the most extensive fading under all conditions was the lowest molecular weight dye and the dye exhibiting the best fastness to ozone under all conditions was the highest molecular weight dye used in this study. These observations support the theory that the larger the dye molecule, the greater its immobility in the fiber and hence the better the resistance to ozone fading.
ASSESSING THE ACCURACY OF A RANKING METHOD TO EVALUATE FABRIC WHITENESS

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The accuracy of a visual ranking method to assess colour differences in off-white fabrics was investigated under a controlled set of conditions. Two hypotheses were proposed relating ranking accuracy to: (a) the magnitude of the colour difference between consecutive specimens in a given series; and (b) the number of specimens being ranked at one time.

Off-white specimens were produced by dyeing a standard white fabric with dyestuff mixtures at different concentrations and dilutions. A computer program selected specimens using the following criteria: each series was compared to a common reference specimen; six CIELAB ΔE readings for each specimen fell within ±0.04 of the average; within each series, the nominal ΔE increments between consecutive pairs were equal; and the lightness, chroma and hue values decreased from the whitest to the least white specimen.

Separate randomized complete block (RCB) designs were run and visual ranking results were analyzed using two factors: (a) ΔE between consecutive specimens within a given series (ΔE_min = 0.2, ΔE_med = 0.5 and ΔE_max = 0.8); and (b) number of specimens being ranked (3, 6, 9 and 12). A threshold test established the ΔE midpoint for the colour difference factor. Twenty-four female Clothing and Textiles students participated in the ranking tests.

For each experiment (i.e., each RCB) Kendall’s rank correlation coefficient (τ) was calculated for each panelist to measure the strength of relationship between her ranking and the instrument ranking (expected ranking). This was done at all levels of the factor. The strength of relationship gave a measurement for the accuracy of visual ranking. Median τ’s ranged from 0.73 to 1.00 for the two factors. Generally, Page’s test for ordered alternatives rejected both null hypotheses in this experimental design, supporting the alternative hypotheses that ranking accuracy: (a) increased as the ΔE between consecutive specimens increased; and (b) decreased as the number of specimens being ranked increased. The median τ’s for the 24 panelists approached 1.00 (1.00, 1.00, 0.94 & 0.96 for 3, 6, 9 & 12 specimens, respectively) for the ΔE series above the visual threshold (i.e., above 0.2). The study has suggested that if the colour differences between specimens were above the panelists’ threshold they could rank a series of specimens from the whitest to the least white.

PERCEPTIONS OF CHEMICALLY RESISTANT GLOVES - A COMPARISON BETWEEN FARM APPICATORS AND OTHERS

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Justification. Most U.S. households use pesticides, but certification programs do not focus on household use practices. Rucker et al. reported that 23.9% of urban users wore gloves, but users’ glove perceptions were not studied.

Objectives. This paper compares the perceptions of persons who never use pesticides, use them mainly for garden and ornamental crops, or around the house (Group 1) with perceptions of persons who use pesticides in farming (Group 2). Three hypotheses were tested: 1) the perception of fit would not be the same, 2) the perception of ease of donning and doffing would not be the same, and 3) the perception of comfort of gloves would not be the same for the two groups.

Methods. At the 1993 Farm Progress Show educational exhibit, participants’ hands were measured, then each received neoprene, barrier laminate, and nitrile gloves to change spray nozzle tips. Free gloves were given to those who completed a questionnaire that asked about their glove perceptions. For analysis, the two groups’ responses were compiled. Significance of cross tabs was indicated by Pearson’s Chi Square.

Results. 602 people tried on gloves and filled out the questionnaire the first day. Of these, 241 (40%) were in Group 1. A statistically significant difference was found between Group 1 and 2 in the perception of gloves which were most comfortable to use (P<.05). With Group 2 respondents, about the same number viewed nitrile and neoprene gloves (49.5% and 48.6%) as most comfortable to use. Most (62%) Group 1 users thought nitrile gloves were most comfortable. No significant difference was found between the two groups with regard to perception of fit and ease of donning and doffing.

Conclusions. This research shows that non-farm and/or non-users differ from farm pesticide users in some perceptions of gloves, but not all. Educational programs about personal protective equipment are needed for both groups.

SENSORY PERCEPTIONS OF FABRIC: GENDER DIFFERENCES

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The purpose of this study was to compare terminology used when males sorted fabrics and when females sorted fabrics and to identify gender differences/commonalities related to multi-sensory perceptions of textiles.

Student volunteers sorted 60 fabric samples into groups based on tactile-only or visual and tactile sensory interaction and answered questions about each grouping of fabrics in terms of why the fabrics were grouped together. Descriptive terms and phrases used by the subjects were recorded for each fabric in a group, aggregated by fabric and content analyzed.

Descriptive terms/phrases per fabric averaged 57 and 359 different terms/phrases were used. The most frequently used terms by both males and females were soft and rough, but women were more varied in choosing the main adjective. Other terms most frequently used by women were smooth, textured, stiff, bumpy, silky and stretchy. Men did not frequently use the terms textured and stretchy.

The fabric which elicited the most descriptive terms was a cotton/acetate Jacquard weave brocade and the fabric with the least descriptions was a polyester/nylon cut velour. Descriptive terms were mainly related to feel of fabric or fiber/fabric structure, though look of fabric, extended inferences, affective responses, and end use were other categories used by both sexes.

Results suggest that males and females are different in their frequency and variety of their sensory interaction and perceptual responses to fabrics. However, a largely common set of terms exists between the two genders. Further study of these terms compared to predetermined textile adjectives will help define the meaning of textile terminology to consumers and merchandisers.

IDEALIZED IMAGES: APPEARANCE AND THE CONSTRUCTION OF FEMININITIES IN TWO EXCLUSIVE ORGANIZATIONS

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Two exclusive organizations, one religious and one secular, are chosen to illustrate diverse uses of idealized images by young women. These images represent socially constructed notions of idealized feminine behavior and appearance in opposite types of institutions. Ethnographic fieldwork was used to explore the use and control of appearance in relation to idealized images for each group.

Holdeman Mennonites (a total institution) reject the world and its fashions, and retain rigid control of ideology. Social control measures are used to keep members committed to group norms exemplified in their exacting dress code. As a consequence, the Holdemans are a relatively homogeneous group of members who have a particular notion as to women’s role in general, and femininity in particular.

Sororities, (greedy institutions) exercise less control over their member’s lives than do total institutions. They embrace the world, fashion, the beauty myth, and accept multiple roles for women. Sororities accept role conflicts as inevitable, and maintain group consensus through subtle measures of social control. Society at large controls girls through the beauty myth. The greedy institution does not rely on coercion in the same way as does the total institution.

While the two organizations are distinctively different, with one embracing and the other rejecting fashion, nonetheless there are generalizable findings. The data showed that adherence to the idealized image is strong in the early stages of membership when combined with commitment to prescribed role. This data refutes notions of an "essential" feminine nature, which attempt to present a universalistic notion of femininity irrespective of culture and history.
BODY IMAGE AMONG AFRICAN AMERICAN WOMEN: A COMPARISON OF CULTURAL CONTEXTS

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Although much research exists in the area of body image, little has focused on African American women. While anorexia and bulimia are connected to body image and body image disorders, they may not be conditions that affect white women only. African American women perhaps experience pressure to be thin for the purpose of combatting racial stereotypes. African Americans may have a standard of ideal beauty which differs from the Euro-American standard. This study examined and evaluated the effects of cultural context on the internalization of a Euro-American standard of beauty for African American women. Data were gathered in two cultural settings, one predominantly Euro-American campus and one predominantly African American campus. A survey questionnaire measured body image, self esteem, and appearance behaviors. Cultural context was related to the definition of standard of beauty; 58% (EA campus) vs. 40% (AA campus) defined it as Caucasian features, indicating a strong degree of internalization of the predominant cultural ideal. About half (58% vs. 47%) indicated that there is a different standard within the African American culture which includes such features as a more rounded silhouette, thus indicating that thinness is not important. About 25% in both settings acknowledged that their appearance did not compare with the predominant standard. Cultural images of beauty must be revised in order to perpetuate a more global standard that includes and empowers all women regardless of ethnicity.

CROSS CULTURAL BODY IMAGE AND APPEARANCE BEHAVIORS: SINGAPORE AND KOREA

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Ideals of what is beautiful in form vary across culture and time. Standards of beauty are never static or absolute, but change constantly and are set by collective taste. Cultural ideals of attractiveness influence the development of an individual's body image. This study compares body image and appearance behaviors, in relation to psychological and socio-cultural factors, among college students in Singapore and Korea. A self-administered questionnaire measured gender role orientation, self-esteem, body image, and appearance behaviors. Descriptive measures, correlations, and MANOVA were used.

Men evaluated their appearances more favorably than women on most BI subscales; Singaporean women were more positive in their evaluations than Korean women. Women were less satisfied with specific body areas and weight than were men, and engaged in more appearance behaviors. Exercising was the most common behavior engaged in by all groups, followed by dieting and ear piercing among women. Men espoused more traditional gender roles than women, perhaps due in part to the strong influence of Confucian philosophy. Self-esteem for all groups was average, perhaps reflecting values of both modesty and collectivism. Non-traditional Singaporean men and women were less likely to diet; there was no effect for Korean women. Non-traditional Korean women were less satisfied with their bodies, raising the question whether they may experience more conflict than Singaporeans between Western ideals and traditional Asian values.
CULTURAL IDENTITY AND BODY IMAGE: DISCUSSANT COMMENTS

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Traditional approaches to the study of body-image have reduced the body into parts separate from the whole, ignored the contexts informants necessarily assume in order to provide responses, and assumed that some useful understanding of the phenomenon is obviously embodied in some numerical measurement. If the "stuff" of peoples' lives, including their bodies, has meaning for them, what approach can best uncover those meanings?

I believe a variety of approaches generally subsumed under qualitative research methods holds more promise than the tradition of positivism, the paradigm from which virtually all quantitative, questionnaire research in the social sciences derives. With qualitative research, the process is generally inductive whereby relevant categories are suggested by the informants rather than by the researcher. Further, focus is on understanding the complexity of the meanings held by informants and on understanding the contexts in which those meanings are experienced.

Employing a research instrument that may have relevance to one cultural system in to a different cultural system is fraught with all sorts of potential misunderstandings. Moreover, methods or techniques that generate responses without a means to explore what those responses mean can result in serious misunderstandings.

The positivist papers in this group represent well-established approaches to social science research in the second half of the 20th century. However, the assumptions and methods of well-grounded qualitative research are different in kind from those of quantitative research, and, I believe, are far better able to illuminate the sorts of questions in which these and most other social science researchers claim to be interested.

THE ROBE OF THE EMPRESS EUGENIE OF FRANCE: AN ARTIFACT STUDY

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A dressing gown that is purported to have been owned by the Empress Eugenie of France, is the focus of this artifact study. The gown was brought to the North Dakota prairie by Marie Downing Williams in 1887. During her eight years as a maid in the court of Queen Victoria, Marie occasionally served the Empress Eugenie. In 1880, Marie accompanied the 54-year old Empress on a trip to South Africa to visit the site of her son's death. A 1930 interview with Marie lists a dressing gown that was designed for the Empress as one of several gifts from Eugenie.

This artifact study uses the four-step perceptual model articulated by Marilyn DeLong. Information and insights gained through observation, analysis, interpretation, and evaluation are used to assess the authenticity of the artifact and its story.

The quilted sky-blue and shell-pink silk princess-style gown hugs the figure closely at the bust and flows loosely over the hips. Decorative embellishments include a cord belt with tassels, eight frog closures, extensive hand embroidery, and top stitching. The garment's style, colors, and decoration date it to the early 1880s.

The Empress sorted through her wardrobe biannually and distribute items she no longer wore, so it is possible that Marie was a recipient of her clothing. However, sources report that the Empress disliked dressing gowns and owned only one, a ready-made red flannel garment she wore in 1865 to tend her ill son. Secondly, while it was her favorite color, Eugenie stopped wearing blue after the death of her sister in 1860. Third, by the time Eugenie was forty, she had begun to "thicken in the bust." The gown has only a 34-inch bust. These facts, together with some of the construction and decorative features of the garment, challenge the claim that the dressing gown was designed for and/or worn by Eugenie. It may, however, have been purchased by the Empress as a gift to Marie in appreciation for her services. The gown's primary appeal is its possible association with royalty.

References:

THE ACQUISITION OF MENSWEAR IN AN AMERICAN FRONTIER TOWN, 1857

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BRINGING CIVILIZATION TO THE FRONTIER: MEN'S COATS IN 1865 VIRGINIA CITY, MONTANA

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On April 1, 1865, the Steamboat Bertrand, loaded with goods for the gold-mining communities of the Montana Territory, sank in the Missouri River in an area called DeSoto Bend, 25 miles upstream from Omaha, Nebraska. Salvaged in 1968, the goods in the cargo hold of the Bertrand included everything needed to sustain life in a mining community including mining equipment, household implements, food, textiles, and clothing items. The cargo included 137 men's coats of various styles consigned to the retailing firm of Vivion and Simpson of Virginia City. The number and sophisticated style of many of the coats were at odds with the often romanticized images in many Western movies and novels that depict settlers of the frontier West leading isolated lives requiring self-sufficiency and rugged individualism.

Analysis of the coats indicates that Virginia City was not as isolated and self-sufficient as often portrayed. Research shows this community was a very "Easternized" society in terms of goods and services, entertainment, and cultural amenities. Contrary to the "rough and tumble" town portrayed in movies, Virginia City was quite sophisticated. This air of sophistication was evident in the clothing available for purchase and worn by townspeople. Research shows that etiquette demanding appropriate fashion apparel for cultural and social events was closely followed by many citizens of this city. The high fashion styles of some of the coats consigned by Vivion and Simpson may have, in fact, helped contribute to civilizing Virginia City.

Study of the coats was helpful in determining a clearer picture of what the residents of Virginia City wore and how their clothing reflected aspects of their social and cultural surroundings. This study also contributed to a greater understanding of life in a western frontier society and the influence the East had upon this culture. In addition, this research indicates that more coat types were available to men of 1865 than has been indicated in clothing history literature.
HISTORIC: ANALYZING ARTIFACTS
DISCUSSANT SUMMARY

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Scholars who study artifacts usually seek to discover the meaning of objects by first identifying and describing the objects. From these deep descriptions the researcher develops questions that relate to culture, rather than the object itself. The next step is to analyze objects within their social-cultural context, and finally interpret them in terms of the meaning they had for their original makers and users, and for the researcher and her audience. Variations on this theme appear in research models developed by a number of researchers. The most well-known models are those of E. McClung Fleming (1973), Jules Prown (1979) and Stuart Smith's students (1984). While scholars often use models, many adapt them to suit their needs, including the panelists in this session.

Barbara Caron drew on a perceptual model for her study of a 19th century house gown given to Marie Downing by Empress Eugenie of France. This perceptual model included observation, analysis, interpretation and evaluation. The observation included a description of the gown and evaluation of quality. Analysis was an attempt to determine what this artifact was and date it. Interpretation in this model relies on impressions and associations...sort of free associating. Caron concluded that Eugenie did not wear this garment. This model would work for some objects, but it has limitations for answering broader questions about cultural context. While limited in scope, Caron's paper reveals creative and analytical thinking.

Susan Hannel examined a sample of clothing purchased and/or made in Oregon, it seems quite likely that the clothing found in the trunk could have been of eastern manufacture and purchase anywhere. Hannell offers us possibilities of stores in Oregon, and even tailors and seamstresses.

Using a model developed by Horswill and Severa (based on Fleming), Hannel is able to answer questions regarding the cut and quality of the clothing, yet does not compare them to actual documented garments housed in collections. Of interest was Hannel's scheme for trying to determine the type of store where the garment might have been purchased based on the quality and type of construction, which presumes that certain types of stores only sell certain garments. With this vast amount of information Hannel has great potential to further our knowledge about men's nineteenth-century clothing habits.

In "Bringing Civilization to the Frontier: Men's Coats in 1865 Virginia City, Montana," Deb Meyer successfully offers a re-interpretation of life on the frontier. The research question came directly from the examination of the garment: Why did the garments suggest a sophisticated life style, when we have generally assumed that these pioneers had a rugged frontier lifestyle with few amenities?

Meyer showed thoughtful selection in the use of three components -- technology, social structure and ideology, and the Smith model to analyze and interpret the artifacts and data. She concluded that the sophisticated clothing aided in the socialization and civilizing process of the inhabitants of the city. The photographs were particularly supportive of her conclusions. This study lends credence to the need for using a variety of artifacts in seeking answers to research questions, especially where written evidence has so clearly been misleading.
TOTAL QUALITY IN THE CLASSROOM

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A small group of professors with similar dedication to teaching formed a group to study the application of TQM in the classroom. Our objective was to apply TQM in the class so as to facilitate the learning process. Thus, the group's objective was expressed in our desire to role model our energy and concern for continuous improvement in the classroom. We found a common technique among us was to involve students in a cooperative learning environment, to have the students grouped in teams, and to have students have input into their learning environment.

As quality is what the customer says it is, several professors decided to pilot test the level of quality in our classes perceived by our customers or students. During one semester, students in our classes were asked to describe their expectations of the teacher, classmates, and environment and then evaluate at what level these expectations were being met. Student feedback was solicited via a survey three times during the semester.

The results, in the form of mean averages for each expectation, was shared after the second evaluation at midterm. Students saw results of their input. This information was then discussed with class members as how the class could be improved or what adjustments could be made, especially if mean averages decreased. This was an application of sharing the leadership to improve the process of the teaching/learning environment.

The study found that student's perceptions of their expectations within the classroom on average changed substantially between the beginning and midterm; beginning and end; and midterm and end of semester. Besides effectively applying TQM in the classroom, we also liked this application as it was preventative oriented and not problem oriented within a class. It allowed us to know our students' expectations before they became complaints at the end of the semester.

PERCEPTIONS OF WORK ENVIRONMENTS BY TEXTILE AND APPAREL FACULTY MEMBERS

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The study examined textile and apparel faculty members' perceptions of their work environment within the context of demographic variables: academic rank, level of education, and size of institution. The objectives of the research were (1) to provide information that textile and apparel units might use in preparation of future faculty, and in satisfaction and retention of current faculty, and (2) to examine the relationships between demographic variables and work environment measures.

The Work Environment Scale (WES), one of the social climate scales developed by R.H. Moos (1986) was used for this study. Various studies have found the WES to be one of the most appropriate instruments for evaluating educational work environments.

All active, U.S. members of the International Textile and Apparel Association (ITAA) were asked to complete the WES and a demographics survey. Analysis included 337 usable responses. MANOVA followed by LSD tests were used to determine if relationships existed between the work environment measures and demographic variables.

Significant relationships were found between work environment perceptions and the demographic variables of academic rank, level of education, and size of institution. Faculty members with doctorates reported more work pressure than those with lower degrees. At the smallest institutions, faculty perceptions indicated more peer cohesion and greater physical comfort than those at the largest institutions.

ITAA faculty rated Involvement, Work Pressure, and Autonomy higher than the mean of the normative scores for all work groups in general. However, ITAA faculty rated Peer Cohesion, Supervisor Support, Control, and Physical Comfort below the normative mean for all work groups. Overall, textile and apparel faculty (69%) are more satisfied with their jobs than faculty in general, as found in a study reported in the Chronicle of Higher Education Almanac (1993).


TEXTILES AND APPAREL ON JEOPARDY!: NOT A TRIVIAL PURSUIT

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The purpose of this study was to examine the field of textiles and apparel as it appears in popular culture, specifically the game show JEOPARDY!. Objectives of the study were to 1) determine categories on the show that relate to textiles and apparel or that include answers/questions associated with the field and 2) compare popular culture with the academic field in relation to emphasis placed on subject matter areas.

JEOPARDY! was video taped daily for one calendar year (re-runs were eliminated). A total of 13,847 answers/questions were observed during the study and 339 related to textiles and apparel (2.45% of total). Seventeen categories were identified that related specifically to the field and represented 190 answers/questions (56%). Subject matter areas identified most often among answers/questions were Clothing Design/Construction/Illustration (108 entries, 31.8%) and Historic Costume/Textiles (96 entries, 28.3%). Chi-square analyses were run to address objective 2. Subject matter areas seen significantly more often on JEOPARDY! than among ITAA membership information included Textile Science ($X^2=7.26; p \leq .01$), Clothing Design/Construction/Illustration ($X^2=11.32; p \leq .001$), and Historic Costume/Textiles ($X^2=20.55; p \leq .001$). Areas with more emphasis among members of ITAA included Social/Psychological/Cultural Properties of Dress ($X^2=14.57; p \leq .001$) and Retail/Marketing/Business Applications ($X^2=36.04; p \leq .001$).

Differences in mission may contrast popular culture and academia. JEOPARDY! focuses on facts that may be more available within the subjects emphasized on the show. Subject matter with greater emphasis in academia may address theory not readily known to JEOPARDY! contestants.

PREDICTING FAILURE OF FABRICS USED IN PERSONAL FLOTATION DEVICES

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The purpose of this research was to assess the relationship between color change and strength loss in selected personal flotation device (PFD) fabrics after laboratory weathering.

Current U. S. Coast Guard acceptance procedures for PFD fabrics are based on standard tests of fabric properties following laboratory weathering. Standards developed in the 1970s for 100% cotton fabrics have not been modified for use with the range of fibers and fluorescent colors most prevalent in this market today, although some of the currently used fabrics are highly susceptible to degradation during use. In a previous study, the majority of PFD fabrics tested showed significant loss of strength after exposure to laboratory weathering (Leonas & Epps, 1994).

Specimens of six PFD fabrics were exposed to light according to Coast Guard recommended procedures. Fabrics were evaluated for change in color and grab strength after seven exposure durations. In most of the cases, both color change and change in strength showed a linear relationship with duration of exposure, and there were significant correlations between changes in color and strength. The results indicate that color change may be an appropriate indicator and predictor of decline in fabric strength.

THE EFFECT OF SENSORY INTERACTION ON DESCRIPTIONS OF FABRICS

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In an effort to isolate the sense of touch from the sense of sight, procedures used to study visual and tactile perceptions of textiles typically involve subjects feeling fabrics and then responding based upon these tactile sensations. However, when isolating senses for investigation, the external validity of these studies may be questioned. Therefore, the effect of sensory interaction on descriptions of fabrics was examined.

As part of a larger study 169 subjects sorted 24 fabrics (woven, knit, and nonwoven fabrics made from natural and manufactured fibers) into groups based upon how the fabrics felt to them. Subjects either felt and saw the fabrics (sensory interaction group; n = 107), or only felt the fabrics (accomplished through the use of a screen; n = 62); and were then asked to write why they sorted the fabrics the way they did. Through content analysis, these terms were categorized using the following taxonomy: texture (27% of the terms), fabric traits (24%), fabric name (20%), fiber content (11%), weight (8.5%), end use (3.5%), appearance (2.5%), extended inferences (2.5%), and affective responses (1%). Significant differences were found between the two groups in their use of terms ($X^2 = 44.60, df=8, p < .01$). Subjects in the sensory interaction group were more likely to use terms classified as end use and appearance; subjects who only felt the fabrics were more likely to use terms classified as texture and fiber content.

Because sensory interaction may affect perceptual responses to fabrics, researchers who use these methods need to be aware of this limitation when collecting and interpreting data.

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MERcerization and Dyeing of Kenaf/Cotton Yarns and Fabric

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Kenaf is being considered as an alternative agricultural crop. Our laboratory has proven the feasibility of both woven and nonwoven textile products. (Ramaswamy et al., 1994a) made with kenaf fiber blends. However, for kenaf to be used in apparel, it is essential to evaluate the response of kenaf to conventional finishing and dyeing processes. Therefore, the objectives were to study the effects of bleach, slack (SM) and tension (TM) mercerization on: (a) physical properties of yarns and fabric, (b) dye uptake of kenaf/cotton fabrics.

Fibers were extracted chemically (Ramaswamy et al., 1994b), softened and processed on the cotton processing system. The physical properties tested for yarns were shrinkage, strength and elongation (ASTM D1578-88) and for fabric were shrinkage, strength and elongation, extent of mercerization (AATCC 89-80) and moisture regain (ASTM D 2654-76). The rate of dye uptake was determined using a spectrophotometer. (Cheek and Roussel 1989)

Slack mercerized yarns had a shrinkage of 20% whereas the tension mercerized yarns had negligible shrinkage. Mercerization improved strength of yarns. Elongation was 15-18% for SM yarns as compared with 3-4% for TM yarns. The kenaf/cotton fabric resulted in less shrinkage (10% for SM and 3% for TM) as compared with control cotton fabric (13% for SM and 8% for TM). Strength and elongation of mercerized fabric showed the same trend as the yarns. Barium activity number indicated that kenaf/cotton fabric was completely mercerized, even better than cotton control fabrics. Moisture content of kenaf/cotton fabrics (6%) was slightly less than control fabrics (8%). Mercerization did increase the dye uptake for the kenaf/cotton fabrics. These results lead us to believe that kenaf/cotton fabrics may perform as good as cotton fabrics. We believe that kenaf can bring an exciting texture to women's fashions.

Fabric wrinkle recovery is a major concern of consumers in their judgment of the aesthetic appeal of both apparel and household textiles. Development of quantitative methods for evaluating the wrinkling of these fabrics is an important issue to researchers studying fabric appearance retention. The method often used for testing wrinkle recovery of a fabric is AATCC Test Method 128, "Wrinkle Recovery of Fabrics: Appearance Method," in which standard procedures of inducing and rating wrinkling are specified. Because of the subjective nature of this rating method, the reliability and accuracy of the results are sometimes questioned. There is a need for instrumental test methods to assess wrinkling that provide more objective and precise results.

This research uses computer image analysis techniques to characterize and quantify fabric wrinkling for the purpose of devising an automated rating system of fabric wrinkle recovery. The image system used in this study consists of a Dell 486/M PC compatible computer, an HP color scanner and the self-developed software. The scanner is an input device to capture images from fabric samples. The images are processed by using a variety of image processing techniques to enhance quality and to change format of the images for sequential analysis. In the image analysis program, two variables, wrinkle ratio and shade ratio, are defined to quantify wrinkled appearance from two perspectives. Wrinkle ratio measures the amount of wrinkle depth based on differences in pixel intensity. Shade ratio measures the size of wrinkles by counting clustered black pixels representing wrinkles. From the analysis of the AATCC wrinkle recovery replicas, it was found that the grades assigned to the five replicas are not linearly related to the severity (or degree) of wrinkling the replicas represent. Through non-linear regression, two empirical equations are formulated to serve as mathematical models for grading fabric wrinkle recovery based on measurements of the AATCC standard replicas.

Six fabrics varying in structural characteristics were tested for wrinkle recovery by two approaches, subjective evaluation and image analysis. All samples were treated in an AATCC wrinkle tester to induce wrinkling according to AATCC Test Method 128. The wrinkled samples were scanned into the computer so that machine-evaluated grades could be determined and compared to the visual evaluations. The experimental results showed that the computer grades predicted from these two equations are acceptably close to the visual grades. Furthermore, subtle differences in wrinkling that cannot be discriminated by human eyes can be distinguished by this computer grading system.

Research in the area of entrepreneurship has studied the relationship of gender of owner and success of business. Studies have indicated that male business owners are more successful than female. However, these findings are based on the fact that males and females desire similar outcomes from their businesses. The purpose of the present study is to investigate the factors that contribute to business success and women business owner's satisfaction with their work.

The names of one hundred and fifty three female business owners of apparel and related areas were obtained from the Women's Yellow Pages of Oklahoma and the Directory of Oklahoma Home-Based Businesses. Data was collected using a mail survey. The questionnaire composed of closed ended and open ended questions.

The quantitative data were analyzed using means, frequency tables, and T-test. Self ratings of success was or a 7-point scale, with 1 as "very unsuccessful" and 7 as "very successful." The data were divided into two groups: successful and unsuccessful. T-test was done to find differences among the two groups. The analysis indicate that on several factors there were significant differences among the two groups. Successful respondents felt less threat to survival and well being of their businesses, they were more satisfied with life in general and with their businesses. Also successful female business owners had more experience and had more self confidence in running their business. Length of ownership, desire to see the business grow, dissatisfaction with previous employment, income, and hours per week spent on the job were other factors that differentiated successful and unsuccessful female business owners.

Respondents' verbal descriptions of success and satisfaction with their job were analyzed using content analyses. More female business owners mentioned factors other than financial factors as contributors to the conceptualization of success and satisfaction.

It is important for researchers and training programs to understand how female business owners perceive success and satisfaction with their businesses and to determine variables that contribute to success. Information from this study may be used to design training schedules and generate hypotheses for future gender studies on entrepreneurs.
TAIWANESE APPAREL INVESTMENT IN CHINA

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Taiwan, a leading world apparel producer and exporter, recently has experienced economic downturns in this sector in reaction to domestic labor shortages, wage increases, and declining world demand. In order to maintain profits, many Taiwanese apparel industry members have indirectly invested in China through Hong Kong.

The objectives of this project are to analyze the role of the Taiwanese government, the relationship between private apparel firms and the government, and potential economic and political benefits and costs for Taiwan's apparel industry and the Taiwanese government in light of government regulations for managing outward investments in China. Wade's (1990) governed market theory is used in a political economy analysis of results.

Data collected consisted of trade and investment statistics, trade documents, government documents, and telephone interviews with government officials in Taiwan and Washington DC, and owners of apparel factories in Taiwan who have invested in factories in China during the last two to seven years.

Results indicate that government and industry interests do not directly conflict. The government realizes the need of businesspersons to invest in China and does not prohibit them from indirect investments there as long as no technology transfer is involved and the national security of Taiwan is unaffected. Economic benefits of investment in China for apparel manufacturers and the government outweighed economic costs. These included avoidance of trade barriers in developed countries, low labor costs, and penetration of the Chinese market. Many Taiwanese manufacturers, after setting up factories in China, shifted their operations in Taiwan into centers for research and development, material procurement, training, and marketing. Industry upgrading has thus been achieved without requiring government involvement. Because most Taiwanese factories in China import raw materials and components from Taiwan, Taiwan's upstream and midstream textile sectors are doing well. In terms of political benefits and costs, both Taiwanese investors and government officials agree that certain costs to Taiwan's national security may be unavoidable because of the complex political situation that currently exists in Taiwan.


CALCULATING PROXIMITY OF RURAL COMMUNITIES TO REGIONAL AND DISCOUNT RETAIL ACTIVITIES USING NETWORK GEOGRAPHIC INFORMATION SYSTEMS

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By their nature, rural communities are isolated from most middle and higher order retail goods. However, those goods have become increasingly available from discount retail stores. The strongest limiting factor to location decision in the midwest has been the need to locate distribution centers near major highways. This trend, however, is changing: saturation and niche marketing techniques have led to greater accessibility to a wider range of retail goods for citizens of remote rural communities.

Recent computer hardware and software advances now allow previously cumbersome and highly detailed analyses to be completed with great efficiency and accuracy. Using geographic information systems (GIS), highly accurate calculations of distance and time needed to travel are used to relate rural communities to shopping destinations. This study explores the advantages of GIS routing applications versus traditional and non-digital forms of analysis. Comparisons between proximities are made for 298 rural communities relative to discount retailers, regional shopping malls, and major interstate highways.

Within the context of this project, the effects of different retail location strategies are now in a visual format that quickly conveys understanding to a wide audience. The proximities of rural consumers to retail goods, previously only empirically estimated, are now easily displayed and calculated. In addition, the use of GIS technology can highlight the potentially isolating effects the use of major interstate highways can have when used in the development of location and marketing strategies employed by retailers.

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DIFFERENCES IN THE USAGE OF EDI FOR APPAREL MANUFACTURERS OF VARIOUS SIZES

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The purpose of this study was to examine differences in the use of EDI (Electronic data interchange) for apparel manufacturers of various sizes. This study represents the first stage of a much larger study which is being conducted by the researchers on the use of EDI.

In the first stage a short self-administered questionnaire was sent to 400 randomly selected apparel manufacturers who were listed in the EDI Yellow Pages. Respondents were asked about: 1) outgoing EDI transmissions, 2) incoming EDI transmissions, and 3) general questions about the firm. In sections one and two respondents were asked to indicate the percentage of data for EDI transactions which were prepared by four specific methods. A total of 86 surveys were returned for a response rate of 21.5%.

Analysis of Variance (ANOVA) was used to compare patterns of EDI usage for firms of different sizes. Significant differences were observed for two technologies which were related to outgoing EDI transmissions: 1) manual rekeying of data for transmission \((p < .004)\) and 2) batch mode transmission of data \((p < .02)\). No significant differences were observed for incoming EDI transmissions. Results from the Least Square Means (LSM) indicated that manual rekeying of data is done most often by smaller firms. This finding may indicate that smaller firms either do not have the technology to transmit data in batch mode or that they are doing a very small amount of data transmission and do not believe that it is cost effective to invest in more sophisticated technologies. Conversely, LSM results indicated that batch mode transmission is done most often by the largest firms.

GANG IDENTITY THROUGH CLOTHING AND APPEARANCE: ISSUES IN SAFETY INTERVENTION STRATEGIES

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As problems of gang behavior are escalating, the need to understand gang identity through clothing and appearance has become critical. Erroneous judgments have been made that have led to dangerous outcomes. People have been killed over jackets and shoes, or for wearing the wrong color in the wrong neighborhood.

In response to these dangers and the rise of gang activity, schools around the country are imposing dress codes. However, no materials exist on how to go about determining appropriate codes, or how to maintain a broad range of self esteem issues in the process. Experimenting with appearance during the adolescent years is an integral part of developing a sense of self. Clothing choices can also express cultural pride and identity. It is important to remain sensitive to these needs. Thus, the issue of gang identity or simply style experimentation and expression becomes a critical one in the context of dress code formation. In order for truly safe environments to be created, it is imperative to accurately determine the visual mix and nuances of gang identity for each site, understanding that gang identity, as well as street style, is not a static event. Simply documenting an appearance locked in time is a limiting approach. Often, by the time an adult understands the meaning communicated by a symbol of clothing item, the meaning and/or symbol have changed.

This research project explores gang identity as expressed through clothing and appearance. The primary goal is to document and understand the changing nature of gang identity within the broader context of street style and adolescent expression. Over the past two years, data have been collected in various settings in the Midwest and the West Coast.

The results from this research show the shifting of images and meanings across consumer cultures of urban adolescents in various locations. As gang identity mixes with street style and moves toward mainstream acceptance, the understanding of the dynamic provides useful implications in a variety of situations.
SYNTHESIS OF STUDIES RELATED TO HUMAN VALUES AND CLOTHING BY META-ANALYSIS

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Researchers have arrived at controversial conclusions on relationships between human values and clothing values or clothing behaviors. Meta-analysis is a useful quantitative approach to combine the results from different studies on a related topic. The purposes of this study are to integrate the results across studies on the relations of human values to clothing values or clothing behaviors, and to introduce and demonstrate a procedure of meta-analysis.

For meta-analysis, nine primary studies related to human values and clothing were selected on the basis of the following criteria: 1) a study in which the researcher employed the Allport, Vernon, and Lindzey “Study of Values” (AVL) or a modified measure of AVL, and 2) a study in which Pearson correlation coefficients were presented between human values and clothing values or clothing behaviors.

Correlation coefficients on selected relationships between human values and clothing values or behaviors were obtained from each study. Using the meta-analysis method developed by Hedges and Olkin (1985), unbiased estimates of $r$ were computed, and homogeneity of effects overall and within groups were tested at the .05 significance level.

Significantly positive relationships existed between human values and the parallel clothing values. Clothing values had negative or no relations to their non-parallel human values. Seven significant relationships between human values and clothing behaviors were found. Results across studies were replicable on some relationships, whereas results on other relationships were inconsistent due to variation of the correlation parameters in the studies. There was evidence that the relationships might be varied by moderator variables such as nationality or occupation.


PRESERVING OUR HERITAGE

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The Apparel Design major was approved at our University in 1990. With this new major came the development of a course of study in Historic Costume. Since that time faculty have received an influx of unsolicited garment and accessory donations from area residents. These items are worthy of attention because they hold special significance either by their age, style, construction, fabric, or trim.

A faculty service grant enabled the instructor to develop a class project that made history of costume come alive with material objects. Using the donated garments and accessories, the instructor allowed students to obtain hands-on experience in working with historical artifacts.

Each student enrolled in the history of costume class was allowed to select one of the donated items to study. The costume identification project included an analysis component and the preservation of the artifact.

First the students analyzed the extant garment and identified fiber content, color, design details and construction details. Then the research process began. This included studying the social, historical, political and technological influences. Once all information had been combined into a cohesive whole, the students had to date the item and present their findings to the class.

The last portion of the assignment involved preserving the costume using appropriate techniques which were demonstrated by the instructor and suitable materials supplied through the grant.

The students were enthusiastic about the project and contributed more to class discussions when they became an integral part of the creative problem solving process. This teaching strategy provided a method of facilitating classroom participation as well as preserving clothing items too valuable to discard.
INTEGRATED SKILLS REINFORCEMENT

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Integrated Skills Reinforcement (ISR) is a student-centered approach for teaching the language skills of reading, writing, speaking and listening. An interdisciplinary faculty development program to use ISR methods grew out of the concern of college professors of the declining SAT and ACT college entrance scores.

The purpose is to develop an ISR Learning Guide for a sophomore level Social Sciences of Clothing course. Each student taking the course receives a learning guide that would provide all the requirements for the entire semester.

The method for ISR manual development is six faculty are accepted by the administration to participate in this professional development activity. They are from departments across the campus. The group meets for 3 days with a facilitator, Dr. J.R. Anderson. An entire course is developed. Reading questions aid students in learning and memory retention. Focus questions coordinate lecture and reading materials and develop critical thinking skills. Faculty members meet once per week for two hours during the semester. During the first hour, what is written is reviewed by one partner. The second hour issues are discussed by the group. Students pretest the materials during one semester. Revisions are made.

Results are a comprehensive learning guide to aid students in their reading, writing, speaking and listening skills while learning subject matter. Students are receptive to the learning guide presented. Improvement is documented in their writing and reading skills. The learning guide has been tested three semesters (100 students).

The interdisciplinary approach using professors across the campus aids in a better understanding of clothing & textiles.


ALUMNI:
A FASHION CAREER CLASS RESOURCE

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Careers in Fashion class was developed to inform students of career opportunities. Continual workplace changes require up-to-date career information. What better resource than our alumni?

Objectives were: a) provide students with current career data; b) establish contact with alumni; and c) provide each student with a personal contact resource from their major.

A letter to alumni explained the project and requested participation on a postage paid postcard. The class developed an open ended questionnaire that addressed previous and current employment, significant college classes, professional and personal employability skills, role conflict, and additional comment space. Returned cards indicating consent to participate were randomly distributed among students. Individualized student letters and questionnaires were mailed allowing a one month response period.

Students presented their alumni contact's information which included: employment position and title variety, personal and professional skill similarity, and university class significance. Alumni thank you letters were mailed.

Alumni were a career exploration resource and appreciated the opportunity to share and participate. Students gained personal contacts and current career information. A continuation of the project will include recent graduates; an expanded and more formalized questionnaire; and provide alumni with project results.
ENHANCED GRADUATE MARKETING RESEARCH THROUGH REAL-WORLD EXPERIENCE

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A chain retailer with a store located in the vicinity of the university asked the Department of Textiles & Clothing to conduct marketing research to aid them in attracting university students to the store. Two graduate students with merchandising interests and research training undertook the project as independent studies. After meeting with store personnel, a survey instrument was developed that addressed the marketing concerns of the retailer. Undergraduates in a merchandising class used the instrument as part of a final project to collect data and prepare individual summaries of their findings. Student evaluations of the undergraduate project (n=23) showed that 78% agreed that they would like more experiential problems in their course work and 61% indicated that the project was a useful learning experience. The graduate students analyzed the data using SPSS then prepared a market analysis and new merchandising strategies that were presented to the retailer. As a result of this project, the report was sent to the retailer's corporate headquarters for further study, and the local store re-evaluated both its advertising message and media. The project gave the students an opportunity to experience learning at its highest level, and, at a time when university programs are being critiqued, this project demonstrated the value of the university to its community.

U.S. TEXTILE AND APPAREL IMPORTS FROM ASIAN COUNTRIES IN THE CONTEXT OF QUOTA RESTRICTIONS

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Textile and apparel quotas, under the auspices of the Multifiber Arrangement (MFA), have been used to control US imports from developing countries for more than 30 years without any sign of import reduction. Instead, US imports have actually increased through upgrading, market diversification, and trade diversion. Among the questions raised concerning these situations by previous researchers are the following: has the overall restrictiveness of the MFA been reduced by trade diversion? and is the shift of suppliers a natural evolution or an artificial creation that would not have happened without quota restrictions?

Based on these questions, this research investigated the effects of quota restrictions of US textile and apparel imports from nine selected Asian-exporting countries on trade diversion, restrictiveness of quotas, and the shift of comparative advantage. Computer files of the World Bank were used to obtain the following data: quota limits of US imports from Asian countries, US imports charged from Asian countries, and quota utilization rates of Asian countries. Regression equations of US import changes, standard deviations of quota utilization rates, and correlation coefficients between import changes and quota utilization rate changes were used t test production site shifts, changing restrictiveness of quotas, and comparative advantage shifts using the Statistical Analysis System (SAS).

Results of regression equations indicate that the production sites have shifted from the Big Three to China and ASEAN. Analysis of standard deviations suggests that the US quotas are less restrictive to the Asian developing countries than they were formerly. Results of the two analyses indicate that the occurrence of trade diversion reduced the overall restrictiveness of quota system. Results of correlation analysis suggest that quota utilization rates might be used as indicators of comparative advantage shifts. Accordingly, the analysis of average quota utilization rate changes indicates that the comparative advantage of textile and apparel production has been shifting from the Big Three to China and ASEAN. Analysis of the trade diversion and comparative advantage shifts indicate that US quota restrictions have had important effects on patterns of US imports from Asia. Microanalysis of each country's specific situation with regard to these macroanalytic results is recommended for further research.
EFFECTS OF TRANSACTION COST ON TURKISH APPAREL EXPORTS TO THE U.S.: A CASE STUDY

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Textile and apparel imports from developing countries to the U.S. have grown significantly in recent years. It is important to study the abilities of these countries to trade with the U.S. In Turkey, the textile and apparel industry is the largest industry, contributing one-third of all manufacturing employment. Considering this, one may wonder why the Turkish textile and apparel industry has not penetrated the U.S. market to its full potential. The purpose of this project is to study the ability of the Turkish apparel industry to trade with the U.S.; the transaction cost approach is used.

This study is based on North's (1987) theory of institutions, transaction costs, and economic growth. North gives four transaction cost variables that influence the rate of growth of economies: Measurement costs; exchange process costs (contractual agreement or prsonal exchange); enforcement costs; and non-market exchange costs that evolve from differences in ideological attitudes. According to North, the ability of an economy to control transaction costs is through the development of political and economic institutions. In the U.S., these institutions developed gradually and had a balanced interplay with the market. However, in Turkey and other developing countries, markets are forced to grow quickly to keep up with global competition, and political and economic institutions frequently lag behind. North believes that this lag contributes to high transaction costs.

A case study method is used. First, data were gathered on the institutional framework; these indicated that the institutional framework is not well-developed. Data were then collected for two manufacturers in Turkey: one currently exports to the U.S. and one no longer exports to the U.S. These manufacturers and their clients were given questionnaires based on North's four transaction cost variables. These data indicated that transaction cost, including all four variables, has affected the ability (or lack of ability) of these two manufacturers to trade with the U.S. In general, findings supported North's theory. These results may be useful for those academics interested in understanding relationships between transaction cost and international business who seek to improve their trade arrangements.


SOURCING STRATEGIES OF INDEPENDENT IMPORTERS: EFFORTS TOWARD TOTAL QUALITY MANAGEMENT

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Implementation of the North American Free Trade Agreement will have an impact on the sourcing strategies used by importers of textile and apparel products. As independent importers look to new potential sources for textile and apparel products, greater attention toward the implementation of Total Quality Management (TQM) procedures may be required to assure that the products purchased satisfy their market requirements. The purpose of this study was to investigate the decision-making strategies of United States and Canadian independent importers regarding the buying process for foreign-made textiles and apparel and involvement in TQM programs.

Responses to a mailed questionnaire indicated that the majority of companies employed decision-making units of one to three people when making buying decisions or selecting a foreign supplier. Only 11.5% were participating in TQM programs. The majority of these indicated that they had seen improvement in their companies due to the implementation of such programs. Twenty-nine percent of the respondents indicated that they used certification programs only to monitor product quality.

Seventeen percent of the respondents' used foreign suppliers that had implemented TQM programs. 26% were not using TQM suppliers, and 57.4% indicated that they did not know whether or not any of their suppliers practice TQM. Because there were more companies relying only on certification programs than companies practicing TQM, one can conclude that participants were more interested in programs to control the quality of their imported product rather than programs to enhance and monitor the quality of the entire organization.
INTERNATIONAL TRADE--DISCUSSANT
SUMMARY

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Papers presented in this session reflect the growing interest among textile and apparel faculty and graduate students in the international trade area. Because the three papers used diverse methodologies and theory, it was difficult to draw parallels among the three. However, this diversity is a positive sign that scholars in the field are drawing upon theory from other disciplines and various methodologies to approach a range of issues related to international trade in textiles and apparel.

Chang and Douglas examined the effect of the quota system in diverting production to other countries. This phenomenon represents an ironic outcome of the quota system because the protectionist forces responsible for fostering the quota system have, in fact, created additional competitors on a global scale. A useful follow-up to Chang and Douglas' study would be a similar analysis in ten years after the quota system has been dismantled.

Duran and Douglas found that transaction costs have affected Turkish apparel manufacturers' ability to penetrate the U.S. market. As the authors appropriately suggest, a significant reason is that Turkish manufacturers have had a long tradition with well-established ties to the West European market. Therefore, even with turkey's generous U.S. apparel quotas, many manufacturers find it easier and less costly to ship to Western Europe. Turkey's limited penetration in U.S. markets perhaps reflects the fact that both U.S. manufacturers and retailers are looking increasingly to the Americas for their sourcing needs, particularly in view of retailers' rapid response strategies.

In addition to Gabrie and Minshall's primary objective, their results provided useful findings on importers and their sourcing decisions. Authors found more emphasis on programs to control the quality of imported products than on the programs to improve management of the firms producing the products. Other studies might focus further on the product certification programs, or a similar study might be conducted with retailers.

Overall, these three papers reported useful findings. More than that, they offered new approaches that might be applied to other countries and other trade issues.

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DISCOUNT STORE PATRONS: THE INFLUENCE OF DEMOGRAPHICS, STORE ATTRIBUTES, AND INFORMATION SOURCES

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Trade publications suggest that consumers shop in discount stores more frequently than in the past. However, little research has updated the profile of Discount Store Patrons (DSP). Research was conducted to identify differences between frequent and infrequent DSP in demographics, importance of store attributes, and use of information sources. The Retail Patronage Influences Model (1975) was the conceptual framework.

Systematic random sampling identified 5,000 consumers to whom surveys were mailed; 879 usable surveys were returned. Chi-square analysis indicated that more female (p<.01), married (p<.05), college-educated (p<.05), young (p<.001), non-Hispanic (p<.05) consumers living in larger households (p<.01) were frequent DSP. Principal component factor analysis with varimax rotation generated 11 store attribute factors. ANOVA indicated that pricing policy (p<.001), advertising (p<.05), resource management (p<.01) and merchandise (p<.05) were more influential for infrequent DSP; language/distance (p<.01) and customer service (p<.05) were more important to infrequent DSP. Regression analyses revealed relationships between importance of store attributes and information sources used to select a store.

Results enhance the Retail Patronage Influences Model by updating the profile of DSP and exploring relationships among importance of store attributes, information sources, and store choice. Results may guide discount stores in developing efficient strategies for reaching target markets.

AFRICAN-AMERICAN MOTHERS' NEED RECOGNITION, SEARCH AND ALTERNATIVE EVALUATION OF CHILDREN'S CLOTHING

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Black households spend 35% less than white households, however in children's clothing, blacks are the best (higher average annual expenditures for consumer units) customers (Morris, 1993).

This study explored need recognition, search, and alternative evaluations of black mothers who have at least one child in the newborn to 6 years old age range. The Engel, Blackwell, and Miniard Decision Process Model was used as the conceptual framework (Engel, Blackwell, & Miniard, 1993).

Four focus group interviews (n=36) were performed in which open-ended questions about advertising information, stores shopped, frequency of shopping, decorations and fibers preferred, and items purchased. The results show that these mothers receive their advertising information from reading parenting magazines, in-store advertisements, and talking to friends and relatives. These mothers shopped mostly at national chain stores. They shopped mostly from once a month to once every 3 to 6 months. Flowers, cars, letters, numbers, and sports were some of the decorations that these mothers preferred. Cotton (100%) was the most preferred fiber.


RELATIONSHIP ANALYSES OF SHOPPING ATTITUDES, PERSONALITY TYPES, AND VALUES SYSTEMS AMONG SELECTED CONSUMERS

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Consumers have differing personality types, values systems, and attitudes constituting overall sets of personal perceptions and mental understandings which influence behaviors with regard to the purchase of goods and services. Therefore, the purpose of the study was to determine whether relationships existed between respondents' shopping attitudes and personality types and values systems.

Subjects consisted of 679 consumers living throughout the U.S., age 25 and older. Response rate was 46.7%. A self-administered mail questionnaire collected data regarding selected shopping attitudes, four personality types ("Personal Profile," 1986), and four values systems types ("The Values Analysis," 1981). Statistical tests were utilized to determine whether shopping attitudes differed significantly between subjects having differing personality types and values systems.

Results indicated that personality did not significantly influence all shopping attitudes, that a trend toward personality having an effect on store shopping attitude existed, that values did significantly influence shopping attitudes, and that values had significant influence on time consciousness and brand loyalty.

Results confirmed that relationships exist between shopping attitudes and personal traits. Additional research could include assessing the influence of additional personal characteristics on shopping attitudes.


MARKET SEGMENT PROFILES
DISCUSSANT SUMMARY

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The researchers in this section shared a concern for better understanding of market segments and relations among market segment descriptors. Work of this type is essential to insure a satisfactory match between marketplace offerings and consumer wants and needs.

Although all three papers dealt with market segment profiles, the researchers approached their work in quite different ways. Thw Wright and Grasso paper demonstrated how focus groups could be useful in gaining an in-depth understanding of a particular target market while the other two papers demonstrated the benefits of large-scale mail surveys.

Additional directions that this work could take is to focus on the underlying causes for certain relationships, and problems as well as preferences of selected market segments. For example, the fact that most mothers in a segment prefer 100% cotton does not mean that any market adjustments are needed -- cotton garments may already be in plentiful supply. Also, a focus on one segment should not lead to the neglect of others. For instance, if data from low income discount shoppers could be compared with data from the high income discount shoppers, more detailed interpretation might be possible.

More general issues that should guide future work on this topic include 1) how various targeting strategies affect any non-target markets and 2) how to insure that targeting is truly supportive of the selected market, rather than patronizing and exploitive.

GENDERED RELATIONSHIPS,
CLOTHING, AND THE FRAMING
OF RETIREMENT

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Previous research has examined physiological and social psychological issues relative to clothing in the context of old age. The present research aims to extend the knowledge base in this area by including the standpoints of retired men. The portion of the study described herein revolves around retired men's relationships with female spouses, relative to clothing and everyday life. Do gender identities bend, blend, or become further demarcated relative to spheres of activity often associated more with female than with male cultural discourse? The study employed a grounded theory approach, but was guided by symbolic interactionist perceptions on aging and clothing, coupled with life-stage theory in human development.

In-depth interviews conducted with 65 retired males and their spouses provided the qualitative data base for this analysis. Interviews were transcribed verbatim and content analyzed. Gender-relational themes emerged as a significant dimension of both the interview processes and responses. Clearly, the female spouse is the gatekeeper of clothing knowledge. She cares for both her spouse and his clothing: in a physical, practical sense, as well as an emotional, symbolic manner. On a tangible level, this is most evident in the area of clothing care, but she also assumes a primary role in determining what is purchased, retained, or discarded. On a symbolic level, her physical action is an emotional investment in both her husband and his appearance. The data are interpreted in light of the intersections among (a) the historical-ideological contexts shaping the couples' relationships, (b) aging as a human-developmental and relational process, and (c) ongoing sites of negotiation and representation in everyday interactions.
BODY IMAGE, SELF-ESTEEM, AND CLOTHING BEHAVIOR OF MEN AND WOMEN AGED 55 YEARS AND OLDER

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Since today's culture considers the young, thin body ideal, it is important to investigate body image of older people and relationships between their body image, self-esteem, and clothing behavior. This research examined relationships between 1) body-cathexis and self-esteem, 2) body-cathexis and clothing behavior, 3) self-esteem and clothing behavior, 4) body-cathexis and demographics, and 5) demographics and clothing behavior of men and women aged 55 years and older.

Data on the four sets of variables were obtained from 67 men and 75 women who were members of senior centers and local churches in Atlanta, Georgia. The questionnaire was administered by mail. Body-cathexis involved five areas of body parts. Clothing behavior had seven dimensions: clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, satisfaction with shopping, shopping interest, store patronage, and clothing expenditure.

Pearson correlation coefficients showed positive relationships between body-cathexis, self-esteem, and clothing behavior. Fisher's z transformation detected similarities and differences between the men and women in the correlations of these variables. Generally, self-esteem and clothing behavior of women were more related with their body satisfaction than were those of men. Multiple regression showed relationships between body-cathexis and four demographic variables (income, sex, education, and social participation). Also, there were relationships between 1) clothing attitude and social participation, 2) sex and three clothing behavior dimensions (fashion opinion leadership, satisfaction with ready-to-wear, and shopping interest), and 3) income and clothing expenditure.

The results suggest that body-cathexis is an important variable in self-esteem and clothing behavior of older people. The close relationships among these variables are consistent with previous studies on younger subjects. The findings contribute to knowledge about the elderly since there are few studies about body-cathexis of older people. Also, the information generated is useful to apparel companies since older consumers may try to compensate for body dissatisfaction through their clothing choices.

CATALOG PATRONAGE MOTIVES OF FEMALE CATALOG SHOPPERS OVER AGE 50: A COMPARISON OF LIGHT AND HEAVY SHOPPERS FOR APPAREL AND ACCESSORIES

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Catalog purchases made by older consumers have increased in retail business. The study's purpose was to examine catalog patronage motives of female catalog shoppers aged 50 and older.

From the previous studies, catalog patronage behavior for shopping has been found to be influenced by a multiplicity of motives.

MANOVA was used to compare between light and heavy catalog shoppers in terms of catalog patronage motives, fashion opinion leadership, catalog shopping activities, and lifestyle activities.

Questionnaires were sent to a nationwide sample of female consumers who had spent at least $50 on catalog shopping for apparel and accessories within a 12-month period. A total of 167 respondents who spent between $250 and $500 were eliminated. Among the final sample of 296 respondents, those who spent over $500 were classified as heavy user (n=143) and those who spent less than $250 were categorized as light shoppers (n=153).

No difference between two groups appeared in catalog patronage motives regarding merchandise assortment, convenience, image, recreation, and customer service. As for lifestyle activities, light catalog shoppers tended to participate more actively in such activities as grooming/fashion, social, sports, and media than did heavy catalog shoppers. No difference was found in fashion opinion leadership. The largest percentage of heavy catalog shoppers were employed full-time and had family incomes of $30,000-$39,999, whereas the largest percentage of light catalog shoppers were retired and had family incomes of $10,000-$19,999.
SOCIAL PSYCHOLOGICAL: FOCUS ON AGING
DISCUSSANT SUMMARY

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Throughout our lives we go through changes in status and identity. Some changes in status are planned for and result in the acquisition of new identities. Others are produced by a long continuous process, for which the points of transition are obscure and the change is masked (as when one tries to hide one's age). In the U.S. of the 1990s, youth and thinness are highly valued and within this environment, to visibly age and manifest grey hair, wrinkles, and other bodily changes is to deviate from the cultural ideal. In accord with actual physical changes of the body due to aging, it might be reasonable to expect women's body images to be negatively affected as they age. As older consumers shop for ready to wear clothing they may experience forced comparisons between how the clothing looks on mannequins and how it looks on them. Using social comparison theory one might predict that older consumers would be more likely to shop through catalogs than to shop at retail stores in which they would be forced to confront these contrasts in the mirror. One next step might be to see if light and heavy shoppers differ in actual body size, in body satisfaction, and in self-esteem. Furthermore, retirement, self-esteem, and body image may affect catalog shopping by older Americans. In the context of retirement, clothing represented and was used in the construction of gendered relationships. Future research might focus on younger couples. Perhaps they will not reflect the dichotomy of gender roles to the extent that retired couples do. Longitudinal study would also be worthwhile to study the way in which these gendered relationships are negotiated over time and also to determine the extent to which they are affected by other factors.

APPAREL MANUFACTURERS' PERCEPTIONS ON ORGANIZATIONAL STRATEGY AND PERFORMANCE

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The researchers investigated apparel manufacturers' views on organizational strategy and performance. Miles and Snow's (1978) adaptive cycle and strategic typology provided a theoretical framework. An Apparel Industry Survey was mailed nationwide to a systematically selected sample of 1,634 manufacturers producing women's, misses', and junior's outerwear. Frequency counts were used to categorize the respondents (N=151) into strategic type classifications (STCs) using a majority decision rule. Data analysis resulted in the following distribution: defenders (Ds, n=66), prospectors (Ps, n=18), analyzers (As, n=36), and reactors (Rs, n=31). The Ds (43.7%) emphasized entrepreneurial stability by producing a narrow range of products; engineering efficiency via specialized skills and standardized technologies; and centralized administrative controls. In contrast, Ps (11.9%) pursued entrepreneurial innovation by producing a wide range of products; engineering prototypic technologies and products; and decentralizing administrative controls. The As (23.8%) focused on entrepreneurial balance by simultaneously producing a stable product line and adopting new products; engineering dual technologies; and proven administrative controls. In contrast, Rs (20.5%) lacked consistent entrepreneurial, engineering, and administrative responses. Chi square and ANOVA statistics revealed significant differences among the STCs on one organizational characteristic and one performance variable: total years in business and overall firm performance (Ps>Ds, Ps>Rs). Organizational strategy implications for apparel manufacturers were provided.

Reference

BUSINESS PLANNING AMONG APPAREL PRODUCERS: A COMPARISON OF PERCEPTIONS AND REALITY

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The purpose of the study was to: 1) compare the importance of operational (annual) and strategic (beyond one year) planning to financial performance of a national sample of apparel producers and 2) assess apparel producers' perceptions of environmental uncertainty as it affects their businesses. Specifically, apparel producers' attitudes and views towards planning, and perceived and real indicators of financial performance were analyzed.

To assess apparel producers' attitudes toward environmental uncertainty, two dimensions of environmental factors were studied: perceived importance (relative influence of each factor on the outcome of the planning process) and stability (volatility of each factor over the past three years). The importance of strategic planning to financial success was found to be positively related to the (1) importance of the managerial factor (availability and control) and (2) stability of the definitional factor (competitive advantage) and the social/political/technological factor (demographic and regulatory changes).

Although the perceived importance of operational planning to financial success was found to be a predictor of net profit, the actual planning horizon (operational or strategic) had no bearing on actual net profit. Smaller apparel companies reported significantly higher profits than did larger firms.

A significant contribution of this research is the comparison of apparel producers' perceptions of the importance of planning to financial success and their actual financial performance.

Implications of the findings are discussed and competitive strategies are offered.

PRODUCT LINE ANALYSIS TO ASSIST MERCHANDISING

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The five "rights" of merchandising are taught in retail merchandising curriculums but these "rights" are also useful in merchandising at the apparel manufacturing level. A large domestic children's wear manufacturer was faced with the challenge of accurately merchandising the Fall 1994 product line.

The purpose of this study was to conduct product line analysis using Fall 1993 styles. Data consisted of 760 styles with forecasts and sales (bookings) for each style. Seventeen variables were used in the study with descriptive and inferential statistics used to analyze the company's product line.

Sales (bookings -- in dozens) were compared with forecasts for each style and an overall error rate (percentage) was calculated. Results indicated that 41.32% of all styles were either over-estimated (forecast estimate > sales by 50%) or underestimated (forecast estimate < sales by 50%). The error rate was greatest in three of the nine sub-strategic business units.

Results from forward stepwise regression indicated four variables (1 Sales, 3 Product) were explaining 81.52% (R-Square) of the variability in sales (dependent variable) for the 1993 product line. The most important variable in explaining sales variability was the Sales variable (style rank -- A, B, C; A = "top seller") followed by Product variables of product type, product length, and fabric types.

Four recommendations were made to management (and implemented!) for the Fall 1994 product line. 1) The statistical model has been replicated for each season. 2) Error rates are closely examined bi-weekly with close scrutiny of all SUBSBU's. 3) Sales representatives of the three largest retail accounts have been used to rank the line, prior to and independent of the merchandising team. 4) Reconfiguration of the product mix has taken place. Results have provided avenues for increased company profitability and assistance in forecasting a "market responsive" product line.
COMPETITIVE BUSINESS STRATEGIES:
DISCUSSANT SUMMARY

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The papers presented in this session focused on manufacturing firms. Business planning was the commonality among the papers. Two studies involved surveys of apparel manufacturers and one focused on development of a forecasting plan for a single firm. One survey investigated apparel manufacturers' views on organizational strategy and related their perceptions to Miles and Snow's (1978) adaptive cycle and strategic typology. Another survey investigated long and short range business planning relative to financial performance and managers' perceived importance of environmental factors relative to long range planning.

Low response rate was a common problem in both surveys, 16.2% and 14.09%. This is not uncommon for surveys, but in order to have application and use for a wider population the numbers need to be higher. The low response rate raises several questions that should be addressed in developing further research projects. Is a survey the best means of examining an issue and collecting data? Do mailing lists reach the level of management needed? Are the appropriate people completing the survey? Do industry participants feel the survey is meaningful enough to stimulate a response? Would a more narrowly focused study provide more in-depth information with wider application?

The purpose of the third study was to work with a single manufacturer and conduct a product line analysis of Fall I and Fall II 1993, establish a statistical model, and assist in forecasting Fall I and Fall II 1994. The results provided error rates by product category, a profile of best selling and reorderable styles, and a forecasting strategy. Forecasting guidelines were established that can be applied to future seasons. The success of this study is due to the firm's interest in the project, participation of key employees, and the firm's cooperation.

As researchers seek to learn more about the manufacturing sector, smaller populations may provide better insights and greater opportunities for information transfer and theory building than larger more diverse populations.

EFFECTS OF OSL AND UNUSUAL STIMULI ON CONSUMER RESPONSES

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Fashion advertisements may use unusual stimuli to appeal to consumer personality traits such as Optimum Stimulation Level (OSL), which describes tendencies to seek change, risk, unusual stimuli, sensuality, or a new environment. A trend in fashion advertising has been to feature models with disabilities—an unusual stimuli in an industry that favors perfect bodies. This study examined the effect of OSL on consumer responses to fashion advertisements with and without unusual stimuli.

Subjects, 101 women in a variety of occupations, viewed an ad featuring one of three models in either a wheelchair or a lawn chair and rated the likelihood they would inquire about, consider, and purchase advertised clothing products for personal use and as a gift. OSL was measured by the Arousal Seeking Tendency Scale (Mehrabian & Russell, 1974).

Social desirability did not affect responses. There were main effects (p<.05) for stimuli (wheelchair/lawn chair) on consumer responses to products intended for self or as a gift. Subjects viewing ads with a model in a wheelchair were more likely to inquire about, consider, and purchase products for self or as a gift (p<.05).

A lack of interaction between OSL and exposure to stimuli indicates models with physical disabilities may not be viewed as an unusual stimuli but as a reflection of a diverse society. Models with physical disabilities effectively stimulated consumer interest in fashion products. Fashion marketers can confidently expand their list of effective models to include models with physical disabilities.

RETAILERS' ATTITUDES AND NEEDS IN RELATION TO THE AMERICANS WITH DISABILITIES ACT (ADA)

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A three phase study, funded through a university research grant, was developed to explore attitudes of small retail businesses toward the ADA and identify retail design needs for merchandising and marketing. The objectives of the research project included: identify the level of awareness and compliance by small retail businesses regarding ADA and identify prevailing attitudes toward the disabled, elderly and ADA by retailers (Phase I), develop informational materials needed to assist businesses (Phase II), and provide information via workshops and educational packets for retailers and teaching faculty (Phase III).

For this Phase I report a preliminary study was conducted by interviewing owners of 15 small retail businesses. Questions concerning the retailer's awareness and attitudes toward the mandated ADA requirements were discussed. Retailers were asked to list the types of compliances already in place and future plans for compliance. Data collected from the interviews was used to develop a questionnaire mailed to 100 small apparel businesses in Oklahoma.

Interview data indicated that about 60% of the stores have already begun making changes to meet the ADA mandates. A need for more information on simplified ways of designing their stores for better accessibility was reported (73%). Most owners (86%) were very interested in marketing techniques to entice the elderly and persons with disabilities to shop in their stores. Photographs of the store layouts and merchandise presentation indicated the areas where retailers are most interested in making improvements for their store.

Analysis of the questionnaire data (18 respondents) indicated that about 40% were not aware of the Americans with Disabilities Act or the mandates. Most businesses did not provide braille signage or accessible heights of merchandise presentation for persons in wheelchairs. Provisions for printed educational materials were of primary interest to the retailers.

RESPONSES TO AND NEEDS OF PEOPLE WITH DISABILITIES DISCUSSANT SUMMARY

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Three papers focused on the clothing decision making process: developing consumer interest, attracting consumers to the product, and selecting clothing to meet the consumer's needs.

Prototype advertisements depicting an able bodied female and a physically disabled female were developed to measure the Effects of OSL and unusual stimuli on consumer responses. Although only perceptions of able bodied consumers were measured, it would be interesting to compare perceptions with disabled consumers. Then compare consumers with low OSL and high OSL by ability levels. Type of product (outerwear vs. intimates vs. cosmetics) might affect their willingness to purchase.

The findings of the survey related to Retailers' attitudes and needs in relation to ADA indicated the need for education and how that information might be effectively delivered. Lack of knowledge and interest in providing services for this population could be approached with programs related to general customer service and then introduce ADA. Working with retailers to first change their attitudes would be more feasible than trying to make costly structural changes in physical facilities. Suggestions included inviting selected retailers to workshops and providing printed materials that could be shared within their retail establishment and possibly with other retailers.

Many of the Clothing needs of the developmentally disabled were similar to the needs of the physically disabled in general. Therefore, these findings need to be placed in a national data bank (ABLEDATA) so future researchers can draw upon them. According to the researcher many of the solutions to special clothing needs could be mass produced which might be possible in sheltered workshop situations. The researcher is to be commended for translation of written materials in Spanish and reporting findings to both the professional and lay audiences.
AESTHETICS: THE JAMES DEAN OF TEXTILES AND CLOTHING

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Broadening scholarship to include more creative written expressions (e.g., use of analogy and metaphor) can breathe life into ITAA, an association dominated by prosaic written scholarship. My creative essay draws analogies between aesthetics and James Dean to help dispel misconceptions of aesthetics of textiles and clothing, which is important for the betterment of our field. This creative essay is a combination of introspection and critical analysis, using qualitative and quantitative data to support my position.

Fallacies of Aesthetics and James Dean

Both aesthetics and Dean are encumbered with fallacies. Both are mistakenly seen as rebels, enigmas, and ensnared in their own complexity. Aesthetics, like Dean, involves more than physical beauty. To rest comfortable with exploring only the attractiveness of Dean's physical appearance misses the richness of the experience. Because of limited space, this abstract will only (briefly) address one misconception, aesthetics of textiles and clothing as rebel.

The Rebel. Both aesthetics and Dean are considered rebels because they are mistakenly thought to resist or reject the established social orders of their worlds. Aesthetics is seen as a rebel, resisting or working outside the established rule of scientific rigor. Aesthetics, unlike an uncivilized wolf-boy huddled in the corner afraid of fire, has embraced modern science (e.g., rigorous methods, ratings of reliability, and tests of significance). With the propagation of aesthetics scholarship from philosophy to a wide range of disciplines steeped in their own methodological traditions it is apparent that aesthetics submits to the rule of scientific inquiry. Many saw Dean as a rebel on-screen and off-screen, but his on-screen characters were really in search of conformity and order offered by the establishment. For instance, in Rebel Without a Cause his character (Jim Stark) desperately wanted the social order of a family headed by a strong father.

There is one major difference between Dean and aesthetics of textiles and clothing; aesthetics is not going to crash and burn at an early age. Scholars should embrace rather than shun aesthetics to fortify understanding of many aspects of textiles and clothing.

THE ART-DRESS NEXUS: A MODEL

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AUSTRALIA 2006

Illustrations of the interrelationship between dress and other art forms are evident throughout history. Fashion in dress through the years has reflected the essential spirit of various art styles and movements. Neo-classicism, Cubism, Abstraction, Surrealism and contemporary art developments have found almost immediate expression in fashion trends.

However this art-dress connection is in an unusual position. Scholars within the field of fine art often consider dress as unworthy of scholarly attention and trivial in comparison to painting, architecture and sculpture. On the other hand, the majority of costume researchers view 'aesthetics' as the study of art rather than of fashion. Furthermore to understand the significance of the art-dress relationship one must adopt an interdisciplinary approach. Many scholars are adverse to such research and as a result, little work has been conducted which has examined the art-dress nexus as the primary focus of study.

The art-dress relationship is an important determinant in the direction specific fashion movements follow. In Narcissus - An anatomy of clothes, Heard (1924) theorized on the existence of two domains within art - the Public Domain of Outer Art and the Private Domain of Inner Art. Outer Art referred to 'public' arts such as painting, architecture and sculpture. Inner Art referred to 'private' arts such as dress and jewellery.

Utilizing Heard's concept, the author developed a model which would visually present the various divisions which exist within the broad field of art and would explain the interrelationships between the Fine Arts, the Decorative Arts and The Arts. Using the model it is possible to visualize the directional modes of influence and gauge the apparent strengths of such factors.

This paper presents a model for the analysis and interpretation of the art-dress nexus. Specific examples of the interrelationships between the various divisions of art have been selected and discussed using relevant art styles and movements to further aid in an understanding of the proposed Art-Dress Model.

PROTOTYPE UNIFORM FOR
VOLUNTEERS IN A CHILD-FRIENDLY
CENTER

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The purpose of this research was to design a uniform to be worn by volunteers for The Jurak University Site To Improve Children's Environment (JUSTICE) Center located in Tulsa, Oklahoma. The center provides a multi-disciplinary evaluation in a child-friendly environment of children who have, allegedly, been sexually abused.

Interior designers, child psychologists and sociologists were consulted to create a physical environment that communicates warmth and friendliness to help children feel more comfortable before and during medical and psychological evaluations. A teddy bear motif is used throughout the center from wall tiles to a teddy bear shaped doorway that invitingly urges children to enter the child-friendly waiting area. The centers' administration requested the design of volunteer uniforms that would be practical to care for, fit a range of sizes, and convey a sense of friendliness and security to the children.

The functional design process was used to develop the prototypes. Interview data were collected from the center's administrators. A market analysis of existing uniforms, a materials search, a literature search that sought information on sexually abused children as well as research on clothing symbolism and a textile evaluation of candidate materials was conducted. The prototypes were presented to the JUSTICE Center staff. One design was chosen and twelve jackets are being produced. This request acknowledges the potent ability of clothing to communicate strong and significant messages and the functional design process was an effective methodology.

DEVELOPMENT OF AIRCREW ARM COVERAGE DESIGNS
FOR THE PREVENTION OF ARM PAIN IN HIGH
PERFORMANCE TACTICAL FLIGHT BASED ON PRESSURE,
ARM MOBILITY, HAND DEXTERITY, GRIP STRENGTH AND
COMFORT ANALYSIS

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In an evaluation of Advanced Integrated Life Support Systems (AILSS) by the Navy for pilots who operate high performance aircraft, it was found that arm pain was experienced by the test subjects. Based on past research completed in high positive acceleration (G) protection, it was theorized that arm pain was due to the absence of pressure on the arm by the AILSS. Without pressure on the arm, it was believed that the pooling of blood, lymph and body tissue under high positive acceleration led to arm pain. Based on this theory, it was believed that through the application of external pressure by an "arm coverage system," that arm pain could be eliminated. However, in order for the arm coverage system to be successful, it must provide maximum arm mobility, hand dexterity, grip strength and comfort so that the pilot could conduct tasks effectively and efficiently during high performance flight. Ten concepts were developed and presented to Navy sponsors of this project. From the ten concepts, five of them were selected by the Navy and fabricated so that they could be tested in a human factors protocol at "1 G conditions. The five designs included: 1. Four separate elastomeric bands secured with hook and pile tape 1" smaller than the subject's arm. 2. Four separate elastomeric bands secured with hook and pile tape 3" smaller than the subject's arm. 3. Two separate dual-closure gel wraps that secured with hook and pile tape. 4. Pullover with a high modulus elastomeric raglan sleeve containing an inner gel pack system. 5. High modulus elastomeric gauntlet with inner gel pack system.

Nine male subjects were tested wearing each of the five arm coverage designs and in two control (uncovered arm) conditions. The protocol measured the ability of the designs to provide pressure, arm mobility, hand dexterity, grip strength and comfort. Pressure exerted onto the forearm by the arm coverage designs was measured by three strain gage sensors (A, B & C). Arm mobility (shoulder abduction & flexion, arm adduction and elbow flexion) was measured with a goniometer. Hand dexterity measurements were taken with a DataGlove® and a Purdue pegboard. Grip strength measurements were collected with a hand dynamometer. Comfort was measured mechanically through blood pressure readings taken with a sphygmomanometer and subjectively with two questionnaires.

ANOVA (p < 0.05) of the data collected, concluded that the pressure exerted onto sensor B by the arm coverage designs, and the elbow flexion and finger mobility measurements were the factors that determined the success of the arm coverage designs. Subjective comfort data supported these findings. ANOVA for the data collected by pressure sensors A and C, and for shoulder abduction & flexion, grip strength and mechanical comfort measurements were found insignificant (p > 0.05) T-tests performed on the arm adduction and timed task ability (Purdue pegboard) data showed a learning curve, thus, they were found insignificant. Based on the findings it was recommended that Designs II, III and IV be considered for future testing by the Navy at greater than 1G conditions to determine if they could eliminate arm pain in flight and provide pilots arm mobility, hand dexterity, grip strength and comfort.
SOFT PRODUCT DEVELOPMENT: AN INNOVATIVE APPROACH TO RESTRUCTURING CURRICULUM

Janet Hethorn, University of California Davis

Soft Product Development is a series of two courses that represent an innovative approach to content traditionally taught in separate courses; clothing construction, flat pattern, and draping. I have combined these areas in order to maintain a holistic perspective in product development that stresses understanding of the theory and practice involved and how one process links to another. The students begin with developing a conceptual understanding of the 2-D to 3-D relationship in building any form, and quickly move to the body, fabric, and on to apparel structures. This condensed approach to product development also meets the current resource challenge to streamline courses taught without sacrificing content.

The students work rapidly to develop a skill base and depth of knowledge. The courses include a minimum knowledge base in each topic area and depth is gained through repetition and applying the concepts in future projects. After completion of two quarters of Soft Product Development, the students have integrated enough information to be able to approach independent problem solving situations.

Beginning students who had never sewn before or developed their own patterns, designed and produced lined jackets with four point collars and welt pockets. Not only were patterns and construction technically accurate, but students also submitted computer drawings of pattern development and markers, along with instructions for steps in construction. They are now ready to approach any pattern making or construction problem with confidence.

By developing these courses in Soft Product Development, no only are the students presented with a holistic, theoretical base to skill development, but they are also ready to move forward with other apparel design courses right away. The integration into the curriculum is much more flexible than requiring several skill related courses. During a time when skill courses are being cut and students are simultaneously expected to magically have a skill base from which to work, Soft Product Development is a solution that has been very successful.

TEACHING DEDUCTIVE LEARNERS IN A SEQUENTIAL INDUCTIVE COURSE

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I was helping some students who attended class every day, completed all the readings and workbook assignments, but could not pass examinations. I kept hearing them say that they “did not understand the big picture” and then I remembered a lesson about deductive learners from my teaching methods class.

Deductive learners need to see the “big picture” first in order develop a reference framework for organizing and retaining the rest of the information. However, in a sequential inductive course, the information is presented in a logical progression from the smallest unit to the largest unit. This order of presentation is perfect for students who are inductive learners, but most classes include a mix of inductive and deductive learners.

When teaching both deductive (macro-to-micro) and inductive (micro-to-macro) learners in the same class, one can teach in a macro-micro-macro sequence to accommodate both learning styles. I experimented with this sequencing in my introductory textile science class. The revised course began with a topic familiar to students, care of textiles, to reduce the fear of the abstract unknown (a.k.a. textile science anxiety). The category of textiles was deductively broken into fabrication identification (weaves, knits, films, foams, and fiberwebs). The weaves and knits were further broken into yarn classifications (filament, staple, spun, twist). Then the fabrics and yarns were divided according to fiber classifications, and then individual fibers and their properties. After these categories were studied, the rebuilding inductive (micro to macro) process began with serviceability concepts of textiles starting with fibers, then yarns, then fabrications, then finishes. Environmental issues and legislation are discussed globally throughout the course rather than at the end of the course.

I am spending more time in preparation, but I am pleased that more students are comprehending the information. I still have students who fail the course, but these non-passers are no longer those deductive learners who attend every day and struggle so hard to grasp the overall framework for organizing the detailed concepts of basic textile science. Meanwhile, the inductive learners are able to organize material sequentially and appear to be doing all right with this new sequence. I still need smoother transitions and more pretest/posttest data to determine the overall effectiveness of this macro-micro-macro sequencing.
The purpose of this research was to design a uniform to be worn by volunteers for The Jurak University Site To Improve Children's Environment (JUSTICE) Center located in Tulsa, Oklahoma. The center provides a multi-disciplinary evaluation in a child-friendly environment of children who have, allegedly, been sexually abused.

Interior designers, child psychologists and sociologists were consulted to create a physical environment that communicates warmth and friendliness to help children feel more comfortable before and during medical and psychological evaluations. A teddy bear motif is used throughout the center from wall tiles to a teddy bear shaped doorway that invitingly urges children to enter the child-friendly waiting area. The centers' administration requested the design of volunteer uniforms that would be practical to care for, fit a range of sizes, and convey a sense of friendliness and security to the children.

The functional design process was used to develop the prototypes. Interview data were collected from the center's administrators. A market analysis of existing uniforms, a materials search, a literature search that sought information on sexually abused children as well as research on clothing symbolism and a textile evaluation of candidate materials was conducted. The prototypes were presented to the JUSTICE Center staff. One design was chosen and twelve jackets are being produced. This request acknowledges the potent ability of clothing to communicate strong and significant messages and the functional design process was an effective methodology.
SOFT PRODUCT DEVELOPMENT: AN INNOVATIVE APPROACH TO RESTRUCTURING CURRICULUM

Janet Hethorn, University of California Davis

Soft Product Development is a series of two courses that represent an innovative approach to content traditionally taught in separate courses: clothing construction, flat pattern, and draping. I have combined these areas in order to maintain a holistic perspective in product development that stresses understanding of the theory and practice involved and how one process links to another. The students begin with developing a conceptual understanding of the 2-D to 3-D relationship in building any form, and quickly move to the body, fabric, and on to apparel structures. This condensed approach to product development also meets the current resource challenge to streamline courses taught without sacrificing content.

The students work rapidly to develop a skill base and depth of knowledge. The courses include a minimum knowledge base in each topic area and depth is gained through repetition and applying the concepts in future projects. After completion of two quarters of Soft Product Development, the students have integrated enough information to be able to approach independent problem solving situations.

Beginning students who had never sewn before or developed their own patterns, designed and produced lined jackets with four point collars and welt pockets. Not only were patterns and construction technically accurate, but students also submitted computer drawings of pattern development and markers, along with instructions for steps in construction. They are now ready to approach any pattern making or construction problem with confidence.

By developing these courses in Soft Product Development, no only are the students presented with a holistic, theoretical base to skill development, but they are also ready to move forward with other apparel design courses right away. The integration into the curriculum is much more flexible than requiring several skill related courses. During a time when skill courses are being cut and students are simultaneously expected to magically have a skill base from which to work, Soft Product Development is a solution that has been very successful.

TEACHING DEDUCTIVE LEARNERS IN A SEQUENTIAL INDUCTIVE COURSE

Dr. Lucinda Schoenberger, Iowa State University
1064 LeBaron Hall, Ames, Iowa 50011-1120

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TEACHING THE TECHNIQUES OF KNIT DESIGN USING INTERACTIVE MULTIMEDIA

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Techniques used in the design and production of knits are specific to the field and require performing intricate movements that are difficult to learn. Interactive multimedia provides clarity, completeness and repeatability of demonstration necessary to learn these technical skills. The missing component in interactive multimedia learning is expert observation and the resulting feedback, something very difficult to simulate when using a computer program. Data gloves are being experimented with as an input device, to "feel" the learner's movements so the program could provide appropriate feedback. The gloves are still in the experimental stage.

Most instruction in the program consists of digitized video and audio segments. Demonstrations were videotaped under optimum lighting condition. Special lenses provide the best possible vantage point for learners. The completed videotape was then digitized into small files and stored on a hard drive. Audio instructions are recorded and captured separately. The students often choose to watch the technique, then listen to the audio clip allowing themselves be "talked" through the process.

COMPETITIVE METHODS AND ORGANIZATIONAL PERFORMANCE OF APPAREL MANUFACTURERS

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The researchers studied competitive methods emphasized in the apparel industry as viewed by manufacturers. Theoretical foundations were based on Andrews' (1987) classic conceptualization of strategic choices and Porter's (1980) contemporary contextualization of generic strategies. One hundred fifty-one U.S. manufacturers of women's, misses', and junior's outerwear indicated the emphasis their organization placed on 26 competitive methods and three organizational performance items. Factor analysis of the competitive methods resulted in nine underlying factors: marketing, value, operations, promotion, assortment, financial, protection, production, and processes. Average linkage cluster analysis was used to join the 151 manufacturers into homogeneous groups. A majority (91.4%) of the apparel manufacturers emphasized multiple markets (market segments, channels of distribution, customers, and forward integration); moderate values (slightly superior product quality, moderate pricing, and high customer service); monitoring of operation costs (lowest costs per unit); maintenance of brand name promotions (brand identification), moderate assortments (geographic markets and product range); protective vertical integration (slight backward integration); and mixed production sources (subcontracted and fully integrated). ANOVA results indicated no significant differences among the clusters of apparel manufacturers on organizational performance. Strategic implications for apparel manufacturers were determined.

References


INFLUENCE OF ROLE EXPECTATION
ON HISPANIC WOMEN'S SELECTION
OF WORK AND SOCIAL APPAREL

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Influence of role expectation on apparel selection for work and social activities was investigated for a Hispanic working woman sample (n=114) in Texas. Role expectation was derived from a Sexual Identity Scale (Stern et al., 1987), Sex Role Orientation Items (Krause & Markides, 1985), and family participation, work, and education items. High (n=28) and low (n=38) traditional Ss had scores ½ SD above/below the M. Dependent variables were influence of 19 information sources, use of 12 acquisition sources, and femininity of 7 appearance attributes measured on 5-point Likert scales; a 5-point semantic differential format measured 7 clothing styles. Analyses included descriptive statistics and t-tests.

For both situations, Ss were influenced most by in-store clothing displays, friends, and female family members, used department stores more, and had 4 very feminine appearance attributes (hairstyle, cosmetics, jewelry, and clothing style). For both situations traditional women indicated significantly more influence for in-store clothing display, television, and TV ads (p<.025) and more national chain store use (p<.001, p<.025). For work, traditional women had more feminine shoe styles (p<.05) and clothing detail (p<.001); for social situations hairstyle, cosmetics (p<.025), shoe style, accessories, and clothing detail (p<.001) were more feminine.

Retailers need to use in-store clothing displays, develop promotional strategies linking friends and female family members to buying behavior, increase the appeal of more retail sources, and most importantly offer feminine apparel and accessories.


CONSUMERS' IMPULSE BUYING
PROCESS OF CLOTHING PRODUCTS

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The purpose of this study was to construct a model to explain the consumers' impulse buying process of clothing products. For this purpose, a tentative model was constructed based on the theoretical backgrounds.

In order to test the tentative model empirically, a questionnaire was developed and data were collected from 447 adult women living in Korea. As a result, the model was modified. The final model was summarized as follows.

Consumers' unplanned purchasing behavior on apparel was divided into three types depending upon consumers' alternative evaluation process: (1) the reasonable unplanned buying which includes both objective and affective evaluation of the product; (2) emotional unplanned buying which includes only affective evaluation of the product; and (3) objective unplanned buying which in only objective evaluation of the product. This study defines the impulse buying as the second and third unplanned purchase types. The impulse buying of clothing products was occurred when either objective or affective evaluation on apparel buying was imperfect.

The pattern of impulse buying appeared differently according to the consumer involvement pattern. The impulse buying was presumed to be related with expressive clothing. The major situational factors were consumers' current feelings and financial state, the price of the good, the possibility of the apparel being sold out, the image of the store and its displays, and persuasion by sales-people and/or friends. Consumers' satisfaction level of impulse buying was low. But the satisfaction level of reasonable unplanned purchase, which includes both objective and affective evaluation was high.
CURRENT SCARIFICATION AND TATTOOING PRACTICES OF SOUTH AFRICAN TSONGA-女主角

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The Tsonga dress, including scarification and tattooing practices, used to be very distinctive. As symbols of group identity, they served to set the Tsonga apart from their neighbouring tribes. Although many examples of tattooing are still to be seen, the practice of scarification dwindled to such an extent that it was almost completely discontinued 30-50 years ago. Only members of the older generation still bear signs of these practices and know the underlying meanings of these dress symbols. It was therefore imperative to include scarification and tattooing practices in a study of the Tsonga-female's dress.

The cultural perspective which focuses on the symbolism of cultural forms and relations, was used as overall theoretical perspective. The acculturation model of Segall (1979) served as a practical tool for implementing principles from the cultural perspective.

A qualitative research strategy was employed to study Tsonga dress practices in the Ritavi-district, South Africa, over a period of two years. Methods employed to gather data included various interviewing techniques, observation, field notes and human documents (analysis of photographs and letters).

Body markings, functions and meanings were classified into typologies to facilitate description and comparison of former and current practices. These findings revealed some similarities in form with earlier times, although the context of meanings has changed. As a group, these markings still serve the purpose of beautifying the body, enhancing sexual attractiveness and demarcating groups according to age and area. They have lost their distinctiveness as symbols of ethnicity, and have ceased to play an important role in transitional ceremonies. Contact with the Western culture also resulted in the acceptance of new beauty ideals and standards. The contact with a money economy and the acceptance of different economic values lead to the acceptance of new status symbols. Where rites of passage are still performed, it seems as if economic gain is a strong instigator to partake in these practices, as opposed to earlier times, when initiation was one of the important transgression ceremonies in the life phase of each girl and was connected with nubility and marriage. Less value is attached to courage and endurance, aspects which were visually portrayed by former scarification practices. From the viewpoint of the theoretical framework, the findings support the basic assumptions of the cultural perspective, provide insights in the forces at work during the process of acculturation and illustrate the process through which new meanings arise.

MODIFICATION OF EUROPEAN-STYLE DRESS IN THE AMERICAS AS A REFLECTION OF THE ATLANTIC SLAVE TRADE (1761-1810)

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In the eighteenth century, the Atlantic slave trade enabled formation of the capital required to launch the British Industrial Revolution (Anstey, 1975) while affecting the involuntary migration of approximately 15-25 million African slaves in the Americas during the course of the trade (Curtin, 1969).

The conditions of servitude required the slave owner to provide the basic necessities of food, shelter, and clothing to sustain the imported work force. Most African slaves were landed in the Americas with little or no clothing. The annual clothing allotments were sparse and in the European mode; thus emphasizing and reinforcing the cultural isolation of the slave population. Over time, the inherent desire to maintain a separate identity and sense of cultural continuity brought about modifications of dress that reflected the infusion of cross cultural aspects maintained in the imposed environment.

The purpose of this research is to explore, through the examination of the narratives, descriptive, and artistic records of the period (1761-1810), modifications of the proscriptive dress of the eighteenth century African slave in the Americas that reflect cultural affectations of the native African environment. Clothing adaptation, specialization, and arrangement patterns are analyzed within the proscribed regime.

Cultural assuasion as a result of the Atlantic Trade is apparent throughout the Americas. In the North American colonies, there are notable differences in effect in those regions receiving slaves imported directly from Africa as opposed to those from the Caribbean transfer points. The process is illustrative of the intrinsic tenacity of cultural identity, remnants of which survive even in the most adverse environment.

References


CHINESE IMMIGRANT GARMENT WORKERS IN NEW YORK CITY: A FIELD STUDY

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The purpose of this study was to investigate the garment industry, specifically contract shops staffed with immigrant labor in New York City. This is an ethnographic study that involved participant observation by the researcher.

Two Chinese owned garment factories in Chinatown and Queens area were studied covertly over a period of two months. My field role was a beginning sewing worker. Access to the factories was gained through a search of newspaper advertisements and a door to door search for a job. A daily record was kept of what took place.

Result of the study yielded information on the immigrant labor market and demonstrated that the process of an internal training system as well as informal employment procedures exist. The Chinese workers are limited in job opportunities by their language, skills, and education, and like other ethnic groups who preceded them in the garment industry, they work hard to fulfill their individual ambitions and dreams.

The various theories that have been developed are each partially useful in explaining the garment industry labor market, but a complete theoretical framework needs to be considered and developed. The underlying cause of the problems that exist are caused by the basic structure and special characteristics of the garment industry. Thus, the role of unions, as well as governmental agencies, and governmental legislation, are key factors in ensuring that garment industry operations are legal and workers are protected.
DIVERSITY IN ADVERTISING:
ANALYSIS OF MEN'S FASHION
MAGAZINES

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The purpose of this study was to exa-mine two
men's fashion magazines to com-pare advertising
content based on sexual orientation of the reader. Details targets a broad male market while Genre
targets gay males. The objective was to compare
1) companies and 2) product categories repre-
sented in these magazines. Issues from 1993 were
examined and advertising pages content analyzed.
Fifteen product categories were identified. Each
advertisement was regarded as an item and data on
company and product category were recorded on
an analysis sheet designed by the researchers.

Details had a total of 433 advertisements and
Genre had 387. Three clothing com-panies (Guess,
Ralph Lauren, Mossimo) and two cologne
companies (Joop, Davidoff) were identified among
the 12 most frequent advertisers in Details. No
clothing or cologne company was among Genre's
12 most-frequent advertisers. Chi-square analyses
revealed significant differences between the two
magazines in relation to three categories. Although
clothing advertisements were most frequent in
both magazines (Details, 49%; Genre, 21%),
Details had significantly more such adver-
tisements than did Genre ($X^2=46.55, p\leq .001$).
Details also had significantly more advertisements
for audio-video products ($X^2=5.29, p\leq .05$). Genre
had more adver-tisements for entertainment than
did Details ($X^2=7.06, p\leq .01$).

Media targeted to a broad population may not
present the same mix of companies and products
as that represented for unique, niche markets.
Students exposed to media targeted to diverse
groups may gain sensitivity and be better prepared
to work with populations different from their own.

THE WESTERN MARKET: ONE
SEGMENT OR MANY?

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Despite growing importance of the Western
Market (WM), little data have been collected to
develop profiles of the segment, typically referred
to as being homogeneous. The purpose of the
research was to 1) develop a demographic profile
of Western Enthusiasts (WE), 2) study relationships between demographic traits and
factors that influence interest in the West, 3) study
characteristics of consumers likely to purchase
Western products. The Engel, Blackwell, and
Miniard (1993) model was the conceptual
framework.

Data were collected by a recognized marketing
firm for purposes other than those reported.
Thirty-one percent of 7,537 con-sumers contacted
by telephone were categorized as WE. Surveys
mailed to 1,501 yielded a 50 percent response rate.
Chi-square and Anova analyses were used.

The WE profile was 25 to 44 years old; some
college or earned a degree; married; female; and
income of $10,000 to $49,999. Demographics
influenced the likelihood of purchase of Western
products and interest in the West. Results illustrate
the diversity of WE. Data may assist retailers
to develop strategies that appeal to WE. The data
enhance models of consumer behavior by
contributing to our understanding of a specific
market segment. Methods illustrate the potential
for cooperating with industry to identify data
sources appropriate for research.

Consumer behavior, Chicago, IL: Dryden Press.
GAINING AN UNDERSTANDING OF BRAND EVALUATIVE CRITERIA

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The purpose of this pilot study was to examine if evaluation of brands differed by consumer demographics. Consumer demographics (independent variables) included: reason for shopping department stores, household income, age, and sex. The five apparel brand evaluative criteria (dependent variables) were: quality, price, fashion, fit, and overall value. Respondents were asked to rate each criterion using a Likert Scale (1 = much worse than national brands to 5 = much better than national brands).

The research instrument was developed and administered by a large southeastern department store chain in collaboration with the researchers. Using a split sample technique questionnaires were mailed to a total of 1600 households. A total of 400 surveys were returned for a response rate of 27%.

Results from the ANOVA indicated significant differences in consumers' evaluation of four of the brand evaluative criteria: brand quality ($p < .0004$), fashion ($p < .0012$), fit ($p < .0463$), and overall value ($p < .0100$). For two of the evaluative criteria, quality and overall value, significant differences ($p < .01$) were observed between a) men and women (sex) and b) reason for shopping department stores. Results from Least Square Means indicated that women, compared to men, perceived private brands as higher quality and overall value and were purchased for reasons such as value, service, and convenience. In terms of the fashionability, differences in household income, sex, and reason were statistically significant ($p < .01$). Results from the Least Square Means indicated that women, compared to men, viewed the fashionability of private brands as much higher and were purchased for reasons such as value service and convenience. An interesting dichotomy emerged based on household income, with lower and higher income households comparing private brands as higher fashionability than national brands. The age and sex of the respondent significantly affected differences in brands for the criteria of fit ($p < .05$).

SERVICE REDEFINED AS SCHOLARSHIP

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Scholarship Reconsidered, a recent Carnegie Foundation report, proposes a new paradigm for scholarship. The report suggests embracing an expanded view of scholarship involving the discovery, integration, communication and application of knowledge through professional service.

Professors in merchandising, apparel design and production, interior design and consumer studies were invited to contribute to outreach efforts at Colorado State. Faculty-student teams were to work with businesses and communities to address pressing problems, on a fee basis. Faculty were challenged to identify "real-life" problems, apply knowledge for solution of the problems and revise their theories based on application.

The effort, is now called Cooperative Leadership in Networking Colorado (CO-LINC) and provides workshops and design solutions for retailers, manufacturers, interior designers and agencies. Topics for presentations include financial planning and control, time management, textile updates and effective store signage. Design solutions have been provided for both on and off-campus clientele. CO-LINC also provides a vehicle to channel published materials.

The daily problems of business owners became intimate concerns of the students and faculty. Faculty learned to adjust teaching materials and techniques to a professional audience. Research projects addressed problems that warranted study.

The program has two part-time faculty serving as quasi-Extension specialists, paid for by resident instruction funds.
INDIVIDUALITY
ON THE FASHION DIFFUSION

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Individualists tend to seek stimulation, uniqueness and
differentiation, and be creative, self-confident and
independent. Individuality (a desire to differentiate
oneself from others) appears to be a motivation for
adoption of fashion innovation. However, individuals who
seek independence in the individuality seek their own
norms in clothing behavior. Therefore, the concept of the
individuality may be segmented into two aspects: the
desire to seek uniqueness by differentiating oneself from
others; and the desire to seek independence not affected
by others. The latter would not necessarily relate to an
innovation adoption.

Innovativeness and opinion leadership have acquired
attention as the major leadership on the adoption and
diffusion of fashion innovations. That is, innovators tend
to disperse their opinion and experience to others and
exert personal influence. Based on this background, this
study examines bi-dimensions of the individuality, and
investigates their relationships to fashion innovativeness
and opinion leadership.

Data was obtained from 461 female college students.
The individuality, the fashion innovativeness and
the opinion leadership scales were developed for the
questionnaire. Alpha scores of the scales were above .80.
By factor analysis the individuality was divided into the
two dimensions: the extent of differentiation; and the
extent of independence. These two dimensions were
called relative individuality (RI) and absolute
individuality (AI), respectively. Path coefficients were
estimated to examine the relationships of the variables.

The results were summarized as the following: 1) The
RI had a direct effect (Beta=.45, p<.0001) on the fashion
innovativeness while the AI had an indirect effect through
the RI; 2) The RI and the fashion innovativeness had
direct effects on the opinion leadership with the same
magnitude (Beta=.35, p<.0001 for both). The AI had a
small negative effect (Beta=-.08, p<.05) on the opinion
leadership. The result implies the application of the
individuality, particularly, RI to fashion diffusion
strategies. To apply the individuality to the fashion
diffusion, it would be worthwhile to identify the
individuality seekers and differentiate those from the
independence seekers.

CLOTHING AND TEXTILES CURRICULUM
STRATEGIES FOR PREGNANT AND
PARENTING TEEN AUDIENCES

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The health of pregnant teens and teen mothers is a
concern. North Carolina’s teen birth rates have increased
to an all time high during the last five years, and teen
mothers give birth to a high proportion of babies with low
birth weights. Teens, because they lack maturity, are
vulnerable to physical and mental stresses involved in
pregnancy and in caring for their infants. Since teen girls
tend to be preoccupied with personal appearance and
clothing, these personal interest topics are one way to
introduce pregnant teens and teen mothers to health issues
that will affect them and their babies. Too, many teen
girls are on a limited budget, and this makes acquiring an
adequate wardrobe more of a problem.

Clothing selection, adaptations, fit and self esteem
play roles in promoting better health of pregnant teens
and teen mothers. Yet, lack of information and
experience can deter teens from making appropriate
personal grooming and clothing selection decisions. To
help pregnant teens and teen mothers learn these decision
making skills, an experiential learning packaged
curriculum was developed.

Curriculum objectives are to help pregnant teens and
teen mothers to:

1) understand the relationship between the growth of
their bodies and clothing features in order to select
comfortable, non-restrictive flattering clothing styles;
2) develop skills in adapting clothing for their
maternity/post maternity wardrobes; and
3) select appropriate grooming aids for their skin and
hair.

The packaged curriculum includes six leader teaching
outlines, transparencies and a sample kit. Decision
making rating scales and pre and post evaluations are
included.
EXTENSION TEACHING: REACHING LIMITED INCOME AUDIENCES

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Appearance impacts on successful interactions in personal and job-seeking situations. Limited income persons may have limited resources for clothing and personal enhancement. To meet this challenge, a program on wardrobe planning was developed using principles applicable to other audiences with one exception. A complete wardrobe for personal or office situations was purchased from a resale clothing store. All garments fell within a close size range so they could be modeled during presentations. The separates approach was used to focus on types of decisions required when planning a wardrobe.

Examples were offered for individuals with different figure and lifestyle needs. A washable suit was included as well as apparel that required dry cleaning. In place of jackets, sweater jackets and vests, in both long and short lengths, were included. All units "worked" in the overall wardrobe, and were carefully selected to illustrate a variety of concepts. Accessories to use with the wardrobe were selected at the same resale shop.

The resale wardrobe has been used with a variety audiences including displaced homemakers, job training and rural and urban economic development program participants, and senior level students soon to be entering the work force. Audiences were impressed by the fashionable, becoming outfits possible and looked more positively at resale as a source for apparel. Not only did participants develop an appreciation for positive presentation of self and use of resale to extend the clothing dollar, but class members who modeled garments felt good about their involvement. Enhanced self-esteem evidenced by models' facial expressions when presented to a group as positive examples of personal appearance, was an additional benefit. Use of classmates helped sell others on resale for wardrobe sourcing.

CLOTHING THE HOMELESS: AN EDUCATION FOR STUDENTS AND FACULTY

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The fashion department at a suburban university implemented a project in which career dresses were created for ten women making a transition from an urban homeless shelter to a job search. The project attempted to involve fashion students in community service, to instill ethical values, to implement a collaboration between faculty and students, to teach students about figure type and apparel production, and to boost the self-esteem of the women.

It included an investigation of trends in career apparel and commercial patterns; an interview with each woman and procurement of her body measurements; her selection of style, color and fabric; a shopping expedition for fabrics and notions; production of the garments; fittings, accessorizing, and the gift of the outfit to each woman. Funding was needed and came from unsolicited private donations.

Stages of the plan were implemented by classes, faculty or student volunteers. A senior fashion merchandising class interviewed the women and made styling recommendations. Pattern drafting class took measurements, identified correct sizes and obtained patterns. Construction classes undertook production under juniors and professors. Volunteers obtained fabric swatches and aided production. Faculty supervised shelter visits, obtained pattern books, developed the interview form, purchased fabric, notions and accessories, scheduled and directed production on Fridays and Saturdays.

The project was successful; there were sometimes weaknesses in logistics or communication, i.e., in how closely a garment should be custom fit. Faculty hoped for more student volunteerism. The project was a burden to them, beyond teaching, research and/or industry work.

Most objectives were achieved. Students applauded the introduction to "the real world." The department took pride in initiating a collaborative community service effort. The women were thrilled to have the apparel. The only objective not achieved was teaching of efficient production techniques, due to varying skill strengths.

The project may be attempted again. Changes would be made in logistics; financial compensation budgeted for faculty. This effort brought accolades from the public and the administration.
TEACHING CRITICAL THINKING
THROUGH AESTHETICS: GETTING
OUTSIDE YOUR OWN SKIN

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This exercise in critical thinking required the
students to confront and explore their assumptions
and biases related to older people and the aging
process. Such a trigger exercise is the first phase
involved in becoming a critical thinker, according
to Brookfield (1987). Through personal projection
and follow-up discussion of perceived and real
clothing needs of individuals in later stages of the
life cycle, we encouraged students to get outside
of their own skin.

An objective of aesthetics is to remove tunnel
vision by broadening one's perspective. Students
completed an exercise that began with something
familiar and then proceeded to the unknown. Each
student was asked to select an event such as
attending a sports event or theater. To focus on the
situation, some questions about image goals and
physical and personality characteristics were
completed. Students planned an ensemble they
would wear to the designated event at their current
age. Next students completed the same questions
and planned an ensemble for the same event,
thinking of themselves at age 70. Completed
responses of 67 students were analyzed.

By comparing what they wrote with what they
selected for the two ensembles, we were able to
explore assumptions and biases. Responses about
ensembles ranged from similar to contrasting in
form and meaning at their current age and at age
70. Through analysis, it was concluded that the
students held different perceptions of the aging
process.

San Francisco: Jossey-Bass Publishers

ADAPTING WESTERN TEACHING
STRATEGIES FOR APPAREL TEACHING
SEMINARS IN CHINA

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Purpose. A three-week seminar on dress design by
draping and a four-week seminar on theory of dress
design, each presented by an ITAA member, were
held at a teachers' college in Beijing. Participants were
high school and college teachers in China and students
enrolled at the host college. The seminars provide
current knowledge of Western dress design concepts,
technical instruction in aspects of dress design, and the
use of computer aided design. Teaching Strategy.
Written, but vague, objectives were provided by the
host institution for the seminars. While significant
preparation was necessary prior to arrival, teaching
strategies had to be developed for specific situations
after arrival in China. Facilities and supplies available,
ability of translators, range of participants' knowledge-
level, and cultural differences (especially regarding
different approaches to education) had to be
considered daily.

Teaching Methods. Traditional Western teaching
methods were used as appropriate, including draping
demonstrations, viewing video tapes, slide lectures,
and participant assignments. The faculty presenters
were asked to give lectures and demonstra-
tions of other topics, or to other audiences, after
arrival. It was important to remain totally flexible
about the daily schedule. Additional teaching methods
that proved to be helpful included role playing,
discussion, simulation and questioning.

Effectiveness of Strategy in Fostering Learning
Outcomes. The outstanding final draping projects and
the exhibition of illustration boards of a students' dress
collections are visual examples of success in attaining
the learning objectives. We have continued the
curriculum development by sharing teaching resources
with the host institution.
INCORPORATING WRITING-Across-the-Curriculum in Apparel Design

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The goal was to incorporate writing assignments into a variety of courses in the apparel design program, employing specific career knowledge. Apparel design studio courses include "hands-on" projects that require considerable time for both students and faculty. Creative thinking was required to develop assignments that utilize the types of writing that will be valuable to the career needs of apparel design majors, and that were not especially time-consuming for students or evaluator.

In flat pattern design, students write a design analysis using flat pattern terminology for each of the assigned patterns. In draping, students complete several small-scale replicas of designs of one or more great designers, then write a comparative analysis of how the grain has been manipulated and how the garment has been shaped around the body contours.

Students write about the source of inspiration and how it was used to inspire the design project. In an advanced design course, each student writes a critique of a class mate's project, then shares it with the class in an oral critique. The written critique is scored based upon aspects such as use of appropriate design and manufacturing terminology.

Students learn the important garment silhouettes and details of each decade in the 20th century fashion course. To keep each decade clearly differentiated, a flash card assignment was developed. Another assignment in this course is a written comparison of the design styles of Chanel, Vionnet and Schiaparelli.

Conclusion. The writing assignments have provided opportunities for students to develop a stronger ability to express ideas while practicing communication skills needed for their careers. It has enhanced students' understanding of the analytical aspects of the design process.

MERCHANDISING AND DESIGN: A COOPERATIVE PROJECT ADDRESSING A SPECIAL POPULATION

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Objectives: The primary purposes of this interdisciplinary project were to explore the apparel needs of a special population, women 55 years and older, create solutions that would be acceptable and marketable and experience working with persons whose primary focus was in a different segment of the apparel industry.

Documentation of Need: The Reich and Goldsberry (1993) measurement study developed a database of body measurements for women age 55 and older. This study established that significant differences exist between the current voluntary sizing standard used to size ready-to-wear apparel and the database developed in the measurement study.

Project Design: The senior capstone classes in fashion merchandising and fashion design addressed the apparel needs of women age 55 and over. Merchandising students analyzed the needs of the special population and developed a marketing plan for a new sizing. The design students used the team approach to develop the garments for the special population with each student acting as a designer, pattern maker, and sample maker in the production process of one of the garments.

Effectiveness: Working with different industry segments illustrated to students the value of communicating ideas in a clear and efficient manner and in researching a target market. Interaction of this type as well as the entire project process provides future designers and merchandisers insight into the many aspects of design and merchandising that must be considered in order to create and market a successful line of apparel.

Cultural authentication is defined as the creative transformation of borrowed artifacts by members of one culture from another when artifacts are configured or used in different ways than initially conceived. The concept is useful in assessing either contemporary or historic dress and textiles within any culture when borrowed items or materials are part of the ensemble of dress or found within a textile.

The concept was first developed in conjunction with research on a cut-thread textile, *pelete bite*, created by the Kalabari women of the Niger delta of Nigeria (Erekosima and Eicher, 1981). The concept was also used to analyze Kalabari men's dress (Eicher and Erekosima, 1980; Erekosima, 1989). Other researchers utilized the idea to analyze textile artifacts and dress in other cultures but raised questions about 1) the sequencing of the four steps said to be requisite in the process (selection; characterizing; incorporation; and transformation) and 2) whether or not the second step, characterization, is always mandatory.

We review and critique the initial concept and consequent research based on it. We elaborate on the concept and expand each step with Kalabari examples. We offer an operational definition for use in analyzing dress or textile artifacts and ensembles.


THE AFRICAN AMERICAN WOMAN'S HEADWRAP: PARADOX AND MEANING

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The African American headwrap holds a distinctive position in the history of clothing both for its longevity and for its potent significations. Enduring the travail of slavery, never passing completely out of style, the headwrap displays a dynamic quality in acquiring new meanings for its wearers without shedding its older purely African nuances.

Though originating in Africa, the headwrap gained, in the United States, a complex of subtle new functions unknown to the ancestral continent. For the enslaved women, the headwrap took on special meaning as a form of self and communal identity and as a badge of resistance against the servitude imposed by whites.

During enslavement the headwrap served three basic functions for its wearers: 1. covering hair when there was lack of time to prepare it for public view and absorbing perspiration and keeping the hair free of grime during manual labor tasks; 2. communicating the sex, occupation and age of the wearer to both blacks and whites; and 3. marking certain secular and sacred events within the black community. Dress codes, sometimes enacted by whites, which legally required black women to cover their heads with cloth wrappings, do not account for this broad range of significations. Paradoxically the whites misunderstood the self-empowering and defiant intent and saw only the stereotypical "Aunt Jemima" image of the black woman as domestic servient.

After emancipation, the headwrap slowly became a much more private matter. Middle-class and urban women no longer wore it outside the home. In the 1970s, and continuing to the present, the headwrap reemerged as a pervasive item of clothing worn publicly by many black women from all social classes. For modern African Americans, the headwrap embraces their dual historical and cultural heritage, being an emblem of both the enslaved American forebears and the far-older West African ancestors.
THE MEANING OF BLANKETS, TOWELS AND T-SHIRTS IN THE CONTEXT OF ACCULTURATION

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The meaning of blankets, towels and T-shirts, as an integral part of the dress practices of selected groups of South African women, was analysed in the context of social change and acculturation. These particular dress symbols are examples which illustrate the process of cultural authentication. A comprehension of the adaptations in behaviour reflected in the dress practices of groups or individuals in the process of acculturation, may facilitate an understanding of their deeper compelling culture changes. These insights may lead to greater tolerance of differences between the members of cultures in contact.

Qualitative research strategies were employed to investigate the dress practices of selected Ndzundza-Ndebele and Tsonga women over periods of one and two years respectively. Data were collected by means of various interviewing techniques, observation and examination of human documents (dress examples and photographs). The metatheory of Hamilton (1987) provided a valuable framework for the collection and description of the data. The components and mechanisms of the framework were seen as analytical units that had to be operationalized.

As the studies were concerned with the form and meaning of dress symbols, the symbolic interactionist perspective provided an ideally suited theoretical framework for data analysis and interpretation.

Findings revealed that the functions of blankets per se included the portrayal of ethnicity, phases in the process of acculturation according to age, urbanization and acceptance or partial acceptance of Christianity as opposed to adherence to traditional values. T-shirts, and especially towels, were mainly incorporated into the dress practices of both groups to fulfil functions concerned with respectability according to Western norms. T-shirts, furthermore, functioned as a vehicle to portray various modern values, including political values.

All these examples serve to prove that particular dress items are used to facilitate transition in a process of acculturation. The findings of both studies proved that dress is not merely a passive reflection of the social structure of groups. It constitutes an important aspect of social interaction because it can be used to manipulate appearance, either consciously or subconsciously, to negotiate identities and define situations.

The findings illustrate the importance of dress as a powerful instrument to negotiate a socially constituted self and define socially constituted environments. Dress furthermore provides insight into the ability of man to create new social worlds and contexts for interpretation.


GLOBAL RITES OF PASSAGE: IMPLEMENTING CULTURAL DIVERSITY INTO COURSE CONTENT

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Students enrolled in an introductory clothing and human behavior course progress through an intercultural learning process in attempts to understand culturally diverse people (Hoopes, 1979). This learning continuum takes the student from basic ethnocentric behavior to greater awareness, understanding, acceptance, and appreciation of other cultures. In attempts to change ethnocentric behavior, students engage in an in-depth study of the global rites of passage as they relate to dress.

To increase awareness and understanding of other cultures, students view slides selected from The circle of life: Rituals from the human family album (Cohen, 1991). This book highlights the rites of passage as they occur in cultures throughout the world. Students submit compositions of their personal experiences with rites of passage. Additionally, discussion groups are held in which students share cultural backgrounds and compare their diverse experiences.

Appreciation and valuing of other cultures comes through direct contact. Students interact with individuals of other cultures through guest speakers and panel discussions. The global rites of passage unit enriches the curriculum and provides students with greater understanding and tolerance of other cultures.


AN EXTENSION APPROACH TO LEARNING ABOUT FAMILY ROLES THROUGH HISTORIC COSTUME

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An educational resource for Families Extension was developed to assist Iowa families in understanding their past. In anticipation of the Iowa Sesquicentennial Celebrations, a slide set, "Family Apparel: 150 Years Iowa Style 1846-1996," was developed to be used with adults, older youth, and 4H audiences. Other educational institutions may be able to develop similar resources based on their own collections.

The family apparel slide set is used both as an educational and a promotional tool. The educational purpose is to help Iowans increase their understanding of changes in family roles over time as seen through apparel and accessories. The promotional purpose is to provide greater visibility for the Textiles and Clothing Department's Costume and Textile Collection at Iowa State University, to explain its usefulness in research and resident instruction, and to increase awareness of the educational programs offered in the Textiles and Clothing Department.

Approximately 30 items from the Textiles and Clothing Department's Costume and Textile Collection were selected, researched, and photographed. Men's, women's, and children's clothes were selected, researched, and photographed. Men's, women's, and children's clothes were selected based on their ability to accurately represent a time period and show an Iowa or Midwest connection. The script was developed based on information from costume scholars, historic costume files, and other historical references.

Six weeks after the slide set distribution, questionnaires were sent to 30 Extension field staff who received or purchased it. Of the 22 respondents, seven had already used the set. Positive reactions centered around the audience's increased understanding of the past and family role changes as well as their learning about historic clothing. According to field staff reports, the set was particularly appealing to older audiences. Viewers enjoyed and wished for further information about the 1950's. The field staff that had not shown the slide set planned to do so after the official start of the Iowa Sesquicentennial Celebration.

USING MULTIMEDIA TECHNOLOGY IN THE HISTORIC COSTUME CLASSROOM

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The objective of this project was to revise two existing student research projects to include the use of multimedia computer technology in an historic costume class. The scanning capabilities and computer overhead display were to be used to replace poster and other form of visual support previously required for the projects. These visual supports were to be used in conjunction with the oral presentation required for each project. The two projects were a "Decade Paper" which was to include economic, cultural, and political event as well as the fashion of the decade, and the second project was to analyze a recent year, 1990-1993, with regard to fashion and historical events, placing an emphasis on the historical costume influences on the year's fashions. Each project was assigned as a group project, consisting of from four to six students.

Special permission from the university library was received to check-out non-circulating periodicals for the purpose of scanning picture images necessary for the fashions in each project. Using HP Deskscan II, Microsoft® Windows™, and Asymetrix™ MultiMedia Toolbook®, and MediaBlitz™, students composed the visual support portion of the project. A portable multimedia station with LCD projection panel was used during the presentations, given in a small auditorium equipped with a small stage and sound system. The overall effectiveness of the technology to provide visual support for the research assignment far exceeded previously used methods, and greatly enhanced the research project. Due to varying levels of computer competency, the newness of the technology and equipment, and the dynamics of each group, a great deal of time was required on the part of both the students and the faculty member.

References: Asymetrix Corporation, 100-110th Avenue N.E., Suite 717, Bellevue, WA 98004
A VIDEO INTRODUCTION OF APPAREL DESIGN TECHNIQUES USING A CAD PROGRAM DEVELOPED FOR THE MACINTOSH COMPUTER

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Computers design programs have become increasingly important to the apparel industry during the past decade. In fact, in the developing global marketplace, computer technology may become a primary means for survival for U.S. apparel manufacturers. The acceptance of Computer-Aided-Design (CAD) technology by apparel manufacturers has been slow. Fashion schools and universities have been trying to initiate new courses so that merchandising and design students are exposed to new CAD/CAM technologies. The problems of inadequate experience and finances that have plagued the apparel industry also plague higher education. Additionally, very little information is available to support or aid in the instruction of apparel design techniques using computer software and hardware that is unique to the apparel industry.

A CAD program developed by PAD© System Technologies for use on the Macintosh computer platform has been purchased by apparel companies, schools, and universities all over the world. This software has become very attractive to these groups because of the relative affordability of the program and the power of its design, pattern making, grading, and marker making abilities. Very little support material has become available to aid in the training of students who have no experience with computers or apparel design systems.

To promote students' progress and understanding of the computer and the apparel design software program, an instructional video was produced. The video was developed for use during the first few classes on Computer-Aided-Design, to provide students with an overview of the design processes that this system (and others) are capable of performing.

The purpose of this video is to (a) introduce students to the computer hardware that must be used to create apparel designs and patterns; (b) provide an overview of the processes involved in the development of apparel patterns using CAD programs; (c) demonstrate how the design program is accessed so that students can begin the design process, and (d) demonstrate the drafting of an apparel design.

This video is the first in a series which are planned. Other videos will be created to guide students through various pattern drafting or design exercises. These videos should allow students the opportunity to obtain needed help when the instructor or lab assistant is not readily available, relieving some of the stress that students' feel when they are in unfamiliar environments.

BEYOND POSITIVISM: KNOWLEDGE FOR CHANGE AND EMPOWERMENT

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Since its inception as an area of study the prevailing model of research within textiles and apparel has been empirical/analytical. The predominance of this suggest that the human problems related to the subject matter of textiles and clothing are of a particular nature which can best be explained from this perspective. But if the area of textiles and clothing, like other applied areas, reflects a variety of human concerns, then the problems it addresses might likewise demand or even necessitate the use of alternative types of knowledge and theoretical and methodological approaches.

The presentation critiques the practice and research in the area of textiles and apparel with respect to the appropriateness of critical theory as an alternative mode of inquiry to empirical analytical research. It also challenges professionals to consider creating another type of knowledge; knowledge for change and empowerment. To challenge textile and apparel professionals, questions are addressed and specific examples are provided from a review of literature.

The use of critical theory has implications for practice and research within the area of textiles and apparel. The challenge for educators and researchers is to create knowledge for change and empowerment among themselves and for their students.
FASHIONING MASCULINITIES: 
WAYS OF KNOWING 
THROUGH APPEARANCE

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While much academic endeavor has gone into the study of the dress of white, heterosexual, upper class women, there has been little work on men's appearances. Even less research has focused on the ways in which men of differing classes, ethnicities, and sexualities negotiate their social locations with their public presentations. Women must also construct their appearances, but the variety of styles afforded to them allows a greater range of aesthetic opportunities than is available to men.

A critical analysis of over 125 in-depth interviews of male adults coupled with an integrated review of literature inspired a typology of aesthetic standpoints (ways of knowing through appearance). This typology aims to address how men of differing classes, ethnicities, and sexualities negotiate their social locations. We propose five "ideal types": a) the dominant standpoint(s), b) oppositional standpoint(s), c) transgressive standpoint(s), d) altern standpoint(s), and e) sub-altern "standpoint(s)." These standpoints are not mutually exclusive, and a person may easily cross in and out of the ideal types depending on appearance, intent, and context.

We use the concept of the gaze to frame the degrees of power associated with looking, being looked at, and being unseen. We suggest two models useful in visualizing the dynamics involved and spaces created by these standpoints. The first, a flat spiral, stresses the artificiality of the borders and the lack of an "outside," while the second, a three dimensional spiral, emphasizes the "need" for constant reinforcement of a structure ever threatening to collapse.

CLOTHING AND TEXTILES ENROLLMENT 
TRENDS AND PROGRAM ISSUES

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Major changes are occurring in higher education. Clothing and textile programs face many challenges as they move into the 21st century.

The three purposes of this study were to (1) examine enrollment patterns, staffing, department configurations and curricular thrusts; (2) study the extent of involvement in recruitment, enrichment activities and perception of environmental conditions affecting programs; and (3) test hypotheses for differences between large and small departments for recruitment, enrichment and environmental conditions.

A questionnaire was mailed to each department administrator (234) in the United States who had ITAA members; 167 responded. Seventy percent of the departments were multidisciplinary. Departments with fewer than six faculty comprised 80% of the sample. Four year schools accounted for 68% of the responses.

Major findings included: the greatest enrollment change, a 28.4% decline, occurred for bachelor's degree programs from 1987 - 1992; 30% of the programs were exclusively clothing and textiles; 86.9% have internships programs; 91 different department names were used to identify 160 programs. The major recruitment activity was involvement in campus efforts; knowledgeable speakers were the primary source of enrichment; change in the retail economy was identified as the major environmental condition. There were differences between large (> faculty) and small (<6) departments for recruitment (p <.05) but not for enrichment (p = .08) and perceptions environmental conditions, (p = .07).

As clothing and textile programs are located in many different units, under a variety of names it is important that defined goals are made known to campus administrators and unit stakeholders. To improve recruitment and enrichment activities we need to evaluate current practices to determine if they are meeting our goals; if not, more innovative activities should be used. Enrichment efforts require greater use of resources, larger units were able to provide a larger range of activities.
MEN'S IN-STORE SHOPPING BEHAVIOR: 
THE IMPORTANCE OF ATMOSPHERICS

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APPAREL SHOPPING ORIENTATIONS OF 
HISPANIC COLLEGE STUDENTS

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The primary purpose of this research was to analyze the apparel shopping orientations of Hispanic college students based on their strength of ethnic identification. Data were collected via a questionnaire which was administered to randomly selected Hispanic college students in Dallas County. Respondents were classified according to their strength of ethnic identification based on their responses to a 9-item ethnic identification instrument developed by the researcher. Strong ethnic identifiers and weak ethnic identifiers were compared to determine if significant differences existed in their apparel shopping behaviors. Store attributes and sources of fashion information considered most important to Hispanic college students were also examined.

Department stores were identified as the source used most often for apparel shopping among the Hispanic students surveyed. A large assortment of merchandise was determined to be the most important store attribute. Newspapers, magazines, and catalogs were the most frequently used sources of fashion information.

Strength of ethnic identification was a predictor of economy mindedness among Hispanic college students surveyed. Strong ethnic identifiers were highly economy minded in their apparel purchases, whereas weak ethnic identifiers were low in economy mindedness. Strength of ethnic identification was not a predictor of quality consciousness, brand awareness, brand loyalty, conformity in dress, or apparel source shopped most often among Hispanic college students.

A majority of the Hispanic students surveyed were economy minded (99%), quality conscious (98%), and brand loyal (84%) in their apparel purchasing decisions. However, brand awareness was not a significant element among most of the Hispanics surveyed.
COLORIMETRY IN THE CLASSROOM

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This project was conducted to address a growing need for effective color communication between designers, color scientists, marketers, and consumers, through an undergraduate color course. The course includes segments on levels of color communication ranging from fashionable color names, to color order systems such as the Munsell system, and finally, CIE color theory, which can be used to precisely communicate color specifications.

The objectives of the project were to develop in students an awareness of the need for accurate communication of color information, to enable students to develop skill in color measurement, and to facilitate solutions to color matching problems in the "extended classroom", where full-scale laboratory color measurement is not possible, such as on-site retailing and interior design applications.

The course was revised to utilize recently introduced portable hand-held colorimeters which permit precise color measurement, previously possible only with large, stationary laboratory instruments. Class activities in color specification and color measurement using hand-held equipment and a portable light booth with light mixing capability were introduced. Assignments include color measurement problems in retail and design establishments.

Student evaluation shows that portable colorimetry equipment has aided in understanding of color measurement and communication of color specifications.
Traditionally one step in preparing undergraduate interior design students to be successful in the design arena has involved a comprehensive curriculum which included a clothing construction course. Faced with stricter accreditation standards, it was necessary to restructure the clothing construction course to better meet their needs.

Workroom Processes I, a sophomore level course, was developed. This course involved more than sewing soft interior furnishings. The objectives also involved (1) an understanding of fabrics, grain and fabric selection; (2) generating freehand and computer sketches of interior furnishings; (3) understanding measuring techniques of interior furnishings; and (4) reading a workroom specification sheet.

Each student was required to construct a window treatment for a client. Based on this information, the student prepared a sketch of the window treatment with swatches of appropriate fabrics attached. Once approved by the client, the student measured the window, calculated the required yardage, purchased the fabric (paid for by the client) and constructed the window treatment.

This experience allowed the students to incorporate all the information learned in the course into one real-life situation which proved to be beneficial and stimulating. Students self-evaluations and critical analysis by the instructor and client were used. Many students found it necessary to refine their organizational and interpersonal skills in addition to focusing on the construction skills learned in the course.

A variety of stimuli provide inspiration for design of products. Often the genesis of a design is intangible because the designer melds together a variety of stimuli and experiences into the creation. Therefore, it can be difficult for a designer or instructor to express to others the creative process used to inspire and develop of an innovative design.

The purpose of this multi-media presentation is to inspire designers to create products for the current market, and the objectives are to identify a variety of sources of inspiration and methods of avoiding design stagnation, and to facilitate the integration of design theory into a student's thought process. Students are required to select modes of inspiration and then to record notations and sketches they could use to create a design. Students evaluated the presentation as an effective way to identify sources of inspiration, and an alternate mode of obtaining new ideas, learning, and creating. The presentation works well with students lacking confidence, as well as those who are creative.

This multi-media presentation was designed to reduce the directive behavior of instructors who convey design inspiration in a manner which encourages students to design similarly to the instructor. Alternatively, this presentation yields a variety of responses from the students. It allows, as Belenky, Clinchy, Goldberger, and Tarule (1986) suggest, the professor to coach the student to generate or provide concrete meaning to an idea.

AN INTRODUCTORY-LEVEL WORKBOOK
FOR DESIGNING APPAREL USING THE
MACINTOSH COMPUTER

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There are approximately 15 different hardware and
software CAD systems that are unique to the apparel industry. Several software programs have been developed for use in the
apparel industry that are operable on many of the computer
hardware systems already in place on campuses of higher
education.

One such CAD program was developed by PAD© System
Technologies for use with the Macintosh computer platform.
This particular program has been purchased by apparel
companies, schools, and universities all over the world. However, very little support material is available, and the
material that is available has been written from the viewpoints
of computer programmers and experienced apparel designers. Thus, students have difficulty learning how to utilize the PAD©
System without excessive guidance.

To promote students' efficient progress through an
beginning CAD course, an instructional workbook was
developed. The workbook is an introductory workbook for
basic apparel pattern drafting using PAD© System Pattern and
the Macintosh computer platform. The workbook is a series of
pattern drafting exercises that teach not only how to operate the
system, but also essential pattern drafting techniques which
take the usual drafting steps, using paper, pencil, rulers, and
scissors, and transposes those steps using the tools available
within the CAD program. The end results are sets of Misses
size 8, children's size 3, and men's size 34 pattern blocks that
the students can use for further design and development.

The purpose of this workbook is to (a) provide students
the opportunity to use each of the pattern design tools available
within the CAD program, (b) provide step by step instructions
in basic pattern drafting based on essential and sound drafting
techniques, (c) demonstrate the relationships between human
body measurements, pattern drafting, computer design, and
proportion that are essential to quality apparel design, and (d)
provide students the opportunity to develop a set of perfect
block files that can be used for further apparel design activities.

The workbook exercises are structured so that each
exercise builds on the skills learned in previous exercises. The
step-by-step instructions, written for students with minimal
CAD experience, include a picture of the tool "icon" that should
be used to perform each step. Graphical illustrations of the
formation of each pattern are provided as each exercise
progresses to show the students how their work should look at
any particular point.

The material for this workbook has been tested by students
with varying levels of pattern experience, coursework, and
computer knowledge.

CONCEPTUALIZING THE
PHYSIOLOGICAL/PERCEPTUAL RESPONSE OF A
WARM OR COOL SENSATION IN CLOTHING

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An understanding of clothing comfort involves an
understanding of the human body's complex thermodynamic
system. Humans regulate their body temperature at a point near
the maximal tolerable level for the numerous metabolic activities
that control the growth, maintenance and repair of bodily parts
or functions. A lower temperature reduces the rate of all vital
reactions; a higher temperature increases it and both extremes
endanger life. Because clothing interfaces with these complicated
systems, it plays a significant role under certain conditions in
modifying them.

An in-depth review of the literature on clothing comfort
provided the framework for this conceptual work that expands
the current model of clothing comfort presented by Branson &
Sweeney (1991). This research addresses the
"Physiological/Perceptual Response" component of the current
paradigm by offering clarification of variables relevant to
thermoregulation as well as their measurement. The outcome of
this project resulted in the conceptualization of the
physiological/perceptual response of a warm or cool sensation and
is illustrated by the model below.

\[ \text{Sensory Receptors} \rightarrow \text{Central Integrator} \rightarrow \text{Effector Systems} \]

\[ \text{Skin} \rightarrow \text{Hypothalamus} \rightarrow \text{Convection} \rightarrow \text{Sensation}\]

\[ \text{Core} \rightarrow \text{Radiation} \rightarrow \text{Evaporation} \]

The sensation of warmth or coolness is the result of a
complex and continuous physiological control process. The
sensory thermoreceptors supply skin and core temperature
information to the central integrator which processes this
information and then supplies output to the effector systems
controlling heat production or loss. Heat is exchanged
between the environment and the body through four avenues
(conduction, convection, radiation, evaporation) that are
greatly modified by clothing. The sensation of warmth or
coolness may result in behavioral adaptation by the person
thus altering the input to the sensory receptors.

categorization and measurement. In S. Kaiser & M. L.
Danhorst (Eds.), Critical linkages in textiles and clothing:
Theory, method and practice. Monument, CO: ACPTC.
MEASUREMENT DEVELOPMENT: AFFECTIVE REACTIONS TO APPAREL ADVERTISEMENTS

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Cynthia R. Jasper, University of Wisconsin-Madison

Apparel is an important vehicle for expressing self-image, and thus people are often emotionally involved in what they wear. Accordingly, emotions may play a key role in the selection and use of apparel. Since an adequate measure of product-specific emotions has not been developed, this study was intended to develop the measurement of affective reactions through the analysis of apparel advertisements.

Guidelines for measurement development suggested by Churchill (1979) were used in this study. Affective reactions were defined as an individual's subjective feelings experienced in response to an apparel advertisement and were identified to have five dimensions: upbeat, warm, negative, sensual, and uninolved feelings. Sixty-six adjective items were generated from both focus group interviews and emotion typologies from previous measures. Subjects consisted of 128 college students, and casual-wear advertisements were used as stimuli.

The five dimensions were confirmed with factor analysis; they explained 69.8% of the total variance with clear factor loadings of items on each factor. Satisfactory reliability was assessed with Cronbach's alpha coefficients ranging from .58 to .96. Satisfactory convergent and discriminant validity were assessed via the multitrait-multimethod matrix method. Concurrent and predictive validity were satisfactory; affective reactions predicted self-image congruence ($r=.5188$, $p<.001$) and attitude toward the advertisement ($r=.5932$, $p<.001$). This study is an initial step in facilitating the study of the emotional aspects of apparel selection and use.

Reference

TOWARD A VALID, RELIABLE MEASUREMENT INSTRUMENT FOR PROXIMITY OF CLOTHING TO SELF

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Long term goals of this multiphase research program are to develop a standardized instrument for scaling people on the multidimensional attribute, proximity of clothing to self (PCS), and verify content and construct validity and reliability of the instrument. Objectives of Phase One were to: select a formal scaling model for construction of the PCS instrument; develop criteria for constructing items; construct, evaluate, and select items grounded in people's ordinary language across age and sex groups; and revise PCS dimensions prior to application of quantitative analyses with large samples in a subsequent research phase.

A summative scaling model was chosen which assumes that items are monotonically related to the PCS attribute, and a summation of item scores is approximately linearly related to the attribute. Criteria related to concept, context, scale, sample, and syntax were developed to guide item construction. A questionnaire with a series of open-ended questions pertaining to the overall PCS concept and its individual dimensions was completed by 190 respondents, including male and female adolescents (age 14-18), young adults (age 19-34), middle age adults (age 35-54), and older adults (age 55 and over). A qualitative data analysis program, Notebuilder™, was used to code and collate responses by dimension across sex and age groups. An iterative process employing preestablished criteria and subjects' coded questionnaire responses was used to construct, refine, and select scale items. Based on a word usage analysis by age and sex, further refinements in items were made.

Revised dimensions include clothing in relation to: 1) self as structure; 2) self as process — (a) communication of self to others, and (b) response to judgments of others; 3) self-esteem — evaluative process dominant; 4) self-esteem — affective process dominant; and 5) body image and body cathexis. Scale items and concept definition are now grounded in the reality of people's experience across age and sex.
MEASUREMENT/VALIDATION/INSTRUMENTATION: DISCUSSANT SUMMARY

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The three papers in this session reflect the dedication and efforts of the authors to form concepts and develop theory in the discipline. I'm delighted to see studies that focus on follow-up concept formation (Sontag & Lee), clarify concepts (MacGillivray), and use systematic procedures to identify and develop items to measure concepts (Oh & Jasper). Together, the papers illustrate stages involved in conceptualization and measurement.

Conceptualization is an ongoing process and may occur (i) prior to any empirical study (Sontag & Lee), (ii) as concepts are refined and elaborated (MacGillivray), or (iii) as items and dimensions are identified and tested by factor analysis (Oh & Jasper).

The papers in this session demonstrate how we move from the abstract to the concrete in concept formation and measurement. The MacGillivray paper demonstrates conceptualization and its role in measurement. Its purpose is to clarify variables relevant to thermoregulation. In doing so, it extends the Branson & Sweeney model of thermal comfort and demonstrates the process of concept clarification.

The Sontag and Lee paper demonstrates concept formation moving from the abstract to the concrete as they develop an instrument for scaling of the multidimensional concept, "proximity of clothing to self."

The Oh & Jasper paper demonstrates concept formation from concept dimensions to empirical tests. This paper's purpose is to measure affective reactions to apparel ads and specifies the domain of the construct and identifies its underlying dimensions. Items were generated, refined, tested, and confirmed by factor analysis.

In their own ways, the authors have met the challenge for textile and clothing scholars to engage in concept formation activities that focus on conceptual clarity and empirical significance.

EMPLOYEE INVOLVEMENT: A MEANS OF IMPROVING WORKER HEALTH AND SAFETY

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Worker health and safety has become a major issue for apparel manufacturers due to the increase in incidence of work related injuries and illnesses. As a result, many companies are making changes to improve the workplace. According to guidelines by the Occupational Safety and Health Administration (OSHA, 1990), employee involvement is an essential element in a comprehensive worker health and safety program. The purpose of this study was to examine the use of employee involvement to improve worker health and safety by apparel manufacturers.

Data for the study were generated using both qualitative and quantitative methodology. Data from in-depth interviews with upper level managers in ten midwest companies indicated that companies differed both in the extent and manner in which employees were involved. Involving employees in safety teams was reported by five, more that any other specific means.

Analysis of data obtained from 134 companies in a nationwide sample indicated that 81 (61.8%) involved employees on a safety team or committee. Chi-square analysis showed a relationship between involving employees on a safety team or committee and decrease in workers' compensation costs ($X^2=17.99, p<.0001$).

Although 36 of 53 companies who were developing formal ergonomics/safety programs indicated employees assisted in developing the program, chi-square analysis did not show a significant difference in satisfaction with the ergonomics/safety program when this element was used.

THE RELATIONSHIPS AMONG RETAIL EMPLOYEES' PARTICIPATION IN DECISION MAKING, JOB SATISFACTION, AND ORGANIZATIONAL COMMITMENT

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An understanding of how employees' job-related attitudes of job satisfaction (JS) and organizational commitment (OC) relate to each other is important to the study of organizational behavior and human resource management. In addition, there are positive effects of involving employees by asking them to participate in decision making (PDM) on such organizational outcomes as productivity and managerial efficiency. Consequently, to explore how these three variables relate to each other is of critical value to retail human resource managers. The present study examines the relationships among PDM, EJS (Extrinsic Job Satisfaction) IJS (Intrinsic Job Satisfaction), and OC. Another particular contribution of this study challenges the traditional positioning of the JS $\rightarrow$ OC relationship by testing the OC $\rightarrow$ JS relationship.

Collected from two major department stores, the sample consisted of 165 retail sales associates. The instrument contained 3 PDM items, 12 IJS items, 6 EJS items, and 15 OC items. Items for IJS and EJS were rated on 5-point scale while OC and PDM were rated on 7-point scales. Cronbach's alpha technique was applied for internal consistency reliability. Estimates ranged from .73 to .92.

A structural equations approach (LISREL VII) was used to analyze the data. Based on the hypothesized relationships, the overall model fit the data quite well, with all of the paths significant at $p < .001$ and in the expected direction. The GFI (Goodness of Fit Index) was .94, 2df, $p = .001$. The results indicated that (1) PDM had a positive effect on IJS and EJS, (2) OC had a positive effect on IJS and EJS, and (3) there was a positive correlation between PDM and OC.

THE MAQUILADORA WORKFORCE: IMPLICATIONS FOR NAFTA

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In an effort to meet intense competition from low-cost/inexpensive imports, many US firms have established maquiladoras in Mexico. Formerly, this was done under the Item 807 Tariff Schedule of the United States, with cut garment pieces exported for assembly and re-entry duty paid essentially on the value of the construction (that is, value added.) Cultural differences between the US and Mexico are apparently greater than many companies anticipated.

The goal of this study was to examine a maquiladora in the state of Yucatan, Mexico, to develop an employee profile, to determine what problems face managers of these facilities, and to determine job perception and job satisfaction of Mexican workers.

The Minnesota Satisfaction Questionnaire (MSQ) and the Job Characteristics Inventory (JCI) were given to the workers at the plant. Of the people surveyed, 274 usable surveys were obtained. A demographic profile of the employees was also developed.

The plant employed approximately 80% females and 20% males. Over 40% of the work population had a primary education or less. 86% of the employees were under 30.

This study has shown that cultural differences need to be considered seriously if establishing a facility in Mexico. It is extremely important that someone understanding culture of the worker and that of the owning company, is involved in the process of setting up the facility. If research is done on the potential workforce prior to the hiring of employees a company has a much greater chance of success.
"Employment Involvement: A Means of Improving Worker Health and Safety in Apparel Manufacturing," addressed an important issue relevant to apparel manufacturers. One asset of this research was the use of qualitative and quantitative research methodologies. Insight from interviews with managers was used in developing the survey. Issues that deserve further consideration in this research include the incorporation of a theoretical framework, and variable measurement. It was suggested that a multi-dimensional satisfaction measure be considered.

"The Relationships Among Retailing Employees' Participation in Decision Making, Job Satisfaction, and Organizational Commitment," included a well developed review of literature and discussion of the theoretical underpinnings of the model. Well established scales were used to measure the constructs, and appropriate reliability tests were carried out. Additionally, the authors were able to extend the way in which the relationships between variables were examined. Future research could further examine the direction of the relationship between organization commitment and satisfaction.

"The Maquiladora Workforce: Implications for NAFTA," addressed a timely topic that underscores the importance of identifying and understanding the cultural similarities and differences that exist among North American countries. One benefit of this research is the direct use of scales in a completely different cultural context from which they were originally developed. It may be that the scales are culturally biased, and need to be revised, or that completely new ones need to be developed for the Mexican culture. Also, it should be noted, that direct translation of existing scales is not always possible, and can present problems.

THE EFFECTS OF ENVIRONMENTAL ATTITUDES ON APPAREL PURCHASING BEHAVIOR

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This study is based on the theoretical framework developed by Stephens (1985) which suggested that endogenous and exogenous stimulus conditions precede attitudes which in turn influence behavior. The specific goal of this study was to examine the influence of demographic variables, general environmental attitudes, and clothing environmental attitudes on clothing purchase behavior.

A mail questionnaire was developed to collect data from a random national sample of adult female consumers (n=402). Factor analysis generated 3 general environmental attitude factors (Pro Environmental Information/ Regulation; Anti Water/Air Conservation; & Pro Consumption Limitation) and 2 clothing environmental factors (Clothing Anti Conservationist & Clothing Conservationist).

Path analysis was used to examine the sequence of relationships among variables. Two fully recursive path models were generated, one including each of the 2 clothing specific factors. Both models indicated that demographic characteristics influenced general environmental attitudes which, in turn, influenced clothing environmental attitudes which influenced clothing purchasing behavior. Demographics were mitigated by the stronger effects of environmental attitudes. The sequential nature of the present findings extends Stephens' (1985) foundational work.

THE INFLUENCE OF CONSUMERS' ENVIRONMENTAL CONCERN ON THEIR EMOTIONAL RESPONSE TO FASHION ADVERTISEMENTS WITH ENVIRONMENTAL MESSAGE

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Opportunities exist for fashion manufacturers and retailers to target green consumers through green marketing. The study's purpose was to determine if environmental message in a fashion advertisement increases ad appeal and if the appeal is greater for green consumers exhibiting environmental concern.

Photographs with models wearing fashionable casual apparel either in nature or non-nature setting were combined with ad claims to make slides. Each experimental slide had nature setting and one environmental advertising claim: Product, Process, Image, Environmental Fact, or General. With Latin-Square Design, settings and claims were rotated out for the five experimental slides. Each of two control slides had non-nature setting and one fashion claim.

Independent variables were ad message (environmental vs. non-environmental) and environmental concern (high vs. low); dependent variable was emotional response to ads. Female college students (n=120) enrolled in merchandising classes served as Ss. Ss recorded their emotional response while viewing the slides.

Repeated ANOVA produced a main effect of environmental concern. Ss environmentally concerned reacted more positively to fashion ads than Ss who were not, regardless of ad message. The interaction effect was found. Environmentally concerned Ss reacted more positively to fashion ads with environmental message; Ss who were not environmentally concerned reacted more positively to fashion ads without environmental message.

A CASE STUDY OF THE APPAREL PORTION OF THE WASTE STREAM

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In nearly every prognostication of the future, policy makers and the nation's political leaders rank environmental concerns at, or near, the top of the list of national issues demanding immediate attention. Discards per person have risen since 1960 from two and one-half pounds daily to a projected four pounds daily by the year 2000 according to the Environmental Protection Agency. Although most observers of waste management are often more concerned about paper, plastics, and metal, the authors felt a need to become more familiar with the characteristics of waste related to family products, specifically clothing.

The purposes of this research project were to: 1) identify consumer demographic information relevant to discard patterns; 2) analyze spatial discard distribution patterns; 3) ascertain perceived consumer behavior and habits related to apparel consumption and disposal.

Data was collected using a self-administered mail-in survey. Four hundred ten residents from two geographically different communities in the United States submitted usable surveys; response rate was 27%. The majority of the sample population sorted their household waste and supported sorting clothing for waste disposal. Households purchased an average number of 62 clothing articles in one year and discarded an average of 41 articles in one year. Most clothing discsards were hosiery, socks, and underwear. The larger the household size, the greater the number of clothing items discarded in all apparel categories, except suits. The greater the income level of a household, the greater the number of clothing items discarded, except suits, outerwear, and baby clothes. There was no significant difference between communities.

Findings revealed differences between single, dual, and multiple member households and low, mid and high range income level households and their clothing discard patterns. In conclusion, consumers in this sample population were aware of waste disposal, were interested in the future of waste management specific to apparel. It is feasible that the future of the apparel industry might change due to our society's environmental concerns.
CONSUMER BEHAVIOR/ENVIRONMENTAL CONCERNS: DISCUSSANT SUMMARY

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Underlying assumptions of the papers included: 1) clothing actually varies in its environmental impact, 2) these options are available to consumers, 3) environmental impact of clothing is a factor in their decision making, the importance of which will vary across consumers, and 4) by understanding this variance, we can facilitate socially responsible consumption practices.

Butler and Francis noted that consumer behavior affects the environment at two points: 1) at the time of purchase, and 2) at the time of disposal. The studies presented addressed pre-purchase, purchase and disposal stages. Common to the studies was the belief that consumers' attitudes toward the environment would relate to their decision making with regards to clothing. Two studies used the same scale to measure these consumer attitudes.

Two studies used survey methods in order to obtain information from broad random samples. Although response rates were adequate, the question still remains if the respondents were representative of the sample. One study used an experimental design in order to control the stimuli presented to subjects. Because subjects made judgments on several stimuli, order effects may have biased the results.

General questions worthy of further investigation include: How knowledgeable are consumers about the environmental impact of clothing? Are they making informed decisions? From where do their attitudes about the environmental impact of clothing come? Do environmental attitudes necessarily lead to environmentally-conscious behavior? What factors about the product or marketplace might affect environmentally-conscious behavior?

COMPETITIVE SWIMWEAR FOR PRE-TEENAGE GIRLS

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Competitive swimwear developed for the female high school or college athlete have featured high cut legs, tight fabrics, and suggestive prints, features which are inappropriate to pre-teenage girl's somatotype and stage of physical and mental development. The purpose of this design project was to develop competitive swimwear with appropriate fit, function and aesthetic features for pre-teenage girls. Specifically, this project tested the designer to design and execute competitive swimsuits which would enhance performance and figures of three different body types, i.e., endomorph, ectomorph, and mesomorph.

Competitive swimming, the development of swimwear, and the physical/psychological developments of the twelve year old female were studied. Nine swimsuits were created for three twelve year old girls who were members of the area aquatics club and junior high swim team. Designs were developed in a three step process: Swimsuit catalogs were analyzed; subjects measured and questioned about preferences; and designs were sketched and then actualized into garments.

Three aspects of the garments, i.e., fit, function and aesthetics, were evaluated via a survey. Five questions in each of the three aspects were rated on a Likert scale of one to nine. A mean of 6.5 in each of the aspects of fit, function, and aesthetics was needed for a swimsuit to be considered successful.

All nine swimsuits were judged by the three subjects, their mothers, and the three coaches. The swimsuits on the subjects were viewed dry and after the subject swam 50 yards of the front crawl. Evaluators could ask questions of the subjects regarding the performance of the swimsuit while swimming. Seven of the nine garments scored higher than 6.5 in each of the three aspects of fit, function, and aesthetics. Two of the swimsuits did not average 6.5 in the area of fit and therefore, were considered unsuccessful.
APPAREL PRODUCT DEVELOPMENT: MESHING A CONSUMER NEEDS MODEL WITH INDUSTRY PRACTICE

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Industry practice in developing apparel products may influence company profitability. If a company is to be successful, it must produce products that targeted consumers will purchase. The project goal was to examine the fit of a theoretical consumer needs model (Lamb and Kallal, 1992) with industry practice.

The case study approach was used to evaluate development of apparel product lines at 10 apparel companies. Each firm's design/merchandising team was examined to determine how they developed a product line for a target market and made product development decisions. Transcripts of taped interviews were evaluated to isolate criteria used to meet their targeted markets' needs. These criteria were organized within functional, expressive, aesthetic (Kallal and Lamb, 1993) or other categories. The findings in the "other" category led us to examine constraints on product development that were primarily related to meeting merchandising and retailing needs.

Although the end-use perspective reflected in the consumer needs model was supported by these respondents, our findings led us to refine the model when discussing industry thinking in the classroom. Whereas the original framework focused on design for the ultimate consumer, the enhanced framework recognizes that manufacturers must cater to the needs of two customers, the ultimate consumer and the retailer. This framework can be presented to students in stages when discussing industry design/product development perspectives.


* VF Corporation Textile and Apparel Award.
DESIGN/PRODUCT DEVELOPMENT
DISCUSSANT SUMMARY

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The discussion centered around Kallal and Lamb's revision of the Functional-Expressive-Aesthetic (FEA) Model originally proposed in 1992 (Lamb and Kallal). The revised model adds the moderating influence of the merchandiser/retailer to design decisions. Many models for making design decisions focus on the user group as the determining factor in developing designs. The revised model reflects the necessity of considering the needs of all groups who make decisions on use and purchase of a designed product. Session participants proposed broader terms for this moderating element including channel agent or filter. This filter for design decisions may be seen as expanding or limiting possibilities. Preparing design students to incorporate consideration of this filter in the design process is an essential part of design education. Students who can effectively present their designs, explaining the advantage of obvious and hidden features, will be successful in getting the best product to the ultimate user. The papers presented by Nelson and Albrecht and VanZandt, et al. demonstrated the necessity of considering the filter in product design. Nelson and Albrecht's research incorporated the moderating influence of swim coaches and parents into the design of swimwear for pre-teenage girls involved in competitive swimming. VanZandt, et al.'s paper presented the design process and resulting product for the design of pajamas for hospitalized children. In this situation designers needed to consider the moderating filter of hospital laundry requirements, the caregivers needs and the observations of the hospital's child life coordinator. Session participants agreed to further consider the use of the filter concept in their design work and in teaching design.

Reference

BLACK AND WHITE FEMALE ATHLETES
ASSESSMENT OF THEIR BODIES AND SATISFACTION WITH GARMENT FIT

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Apparel manufacturers and retailers are trying to understand clothing preferences of the major ethnic groups in the United States.

The purposes of this study were (1) to ascertain if there are differences between black and white females for body cathexis and (2) satisfaction with garment fit (slacks/blouse); (3) to determine the nature of the relationship between body cathexis and fit satisfaction.

A mailed questionnaire was used for data collection. A modified version of the body cathexis scale (Secord and Jourard, 1953) and fit satisfaction scale (LaBat, 1988) was included. Forty-five coaches gave the questionnaire to a total of 503 players; 442 provided data.

MANOVA, Hotelling's $T^2$, ANOVA, LSMeans and Pearson's Product Moment Correlations were used for data analyses. Black and white female perceptions of their overall bodies differed ($p < .0001$). Black athletes evaluated their bodies higher than whites. Overall satisfaction with the fit of slacks and blouse was not significant, $p = .064$; black females expressed greater satisfaction with garment fit than white females. Correlations between body cathexis and fit were positive and significant, ($p < .0001$). This indicates the higher the evaluation of their bodies, the greater the satisfaction with garment fit.

This research adds to the further understanding of clothing satisfaction of black consumers and indicates more research is needed.


ATTITUDES TOWARD SOCIAL COMPARISON AS A FUNCTION OF SELF-ESTEEM

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It is rewarding for women to maintain an appearance which is young, thin, and attractive. Thus, it is reasonable for them to be concerned with their appearances and to compare to others on that basis. Because media images are ubiquitous and highly attractive, comparison with such images may be related to low self-esteem and dissatisfaction with body image. The purpose of this research was to investigate the relationship between self-esteem, attitudes toward social comparison, and body image. Social comparison theory provided the basis for research hypotheses. As compared to women with low levels of self-esteem, H1: women with high levels of self-esteem will report less comparison to idealized media images and H2: women with high levels of self-esteem will score higher on measures of body image.

In the first phase of the research, college students reported reading and comparing to fashion ads in a series of 3 focus groups. In the second phase, 75 female college students completed measures of body image, social comparison, and self-esteem. MANOVA revealed a significant effect for self-esteem on the dependent variables. ANOVAs revealed that self-esteem had significant effects on measures of social comparison and body image. Women with high levels of self-esteem reported less comparison to idealized images and scored higher on body image than women with low levels of self-esteem. 4-H programs or home economics classes aimed at self-esteem enhancement could help young women deal with idealized images while still maintaining positive self-esteem.

THE EFFECT OF GARMENT SIZE MANIPULATION ON FEMALE BODY-IMAGES

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Vanity sizing is a well known method of sizing used by apparel designers. If a woman fits into a garment with a smaller size number than expected, she may feel better about herself and be more likely to purchase the garment. Due to the extensive use of vanity sizing in the apparel industry, the purpose of this study was to determine the effect on body-image when a smaller (vanity sizing) or larger size than expected is required in order to achieve fit.

The experimental design included the use of unlabeled pants and required subjects to participate in a simulated dressing room experience. The fifty-six female volunteer subjects were randomly designated into three groups. In order to achieve fit, subjects in Group I required a higher size number than their expected (self-reported) size, Group II required lower size numbers, and Group III achieved fit in the expected size. To determine changes in the affective and discriminative components of body-image, the Body Area Satisfaction Scale (BASS) and Perceived Somatotype Scale (PSS) were administered prior to each subject trying on the designated pair of pants (pre-test) and again after proper fit was achieved (post-test).

Statistical analysis revealed that, while garment vanity sizing increased subjects' satisfaction with specific body areas, it did not provoke decreases in perceived body size. The simulated experience of being too large to fit into the expected garment size negatively influenced both affective and discriminative elements of body-image. Satisfaction with lower torso regions decreased as indicated by pre- and post-BASS scores. At post-test, subjects also believed their bodies were larger than originally estimated at pre-test.

The findings suggest that rather than attribute fit variations to manufacturers' sizing systems when a larger size is needed, a woman will perceive personal figure flaws as the reason for not fitting into the expected size number.
ON THINNESS AND DOMINANT FEMALE CULTURE: DISCUSSION

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Collectively, the papers in this session reveal how the dominant (white, western) female cultural norm of thinness plays out in the body images of U.S. college women (the focus of study in all three papers). In the process, these papers display how this norm becomes a kind of generalized "other" that interacts in complex and varying ways with perceptions of self and clothing. It may be just as important to evaluate the cultural understandings and self-feelings that women bring to contexts of addressing the norm of thinness as it is to explore its downside. Feather, Herr, and Ford show that African American female basketball players feel more positively about their bodies than do their European American counterparts, even though the former tend to be somewhat heavier. Similarly, Lilletun, Buckland, and Lennon note that the media's tendency to elevate women's standards for self-evaluation does not necessarily result in lower self-esteem on their part. But the paper by Strait and Lawson shows how apparel (pants) size becomes a potent, albeit inaccurate, "reality check" in the context of the dressing room. In this instance, a mere number serves as a frame of reference or "standard" cultural basis for comparison, often eliciting relatively harsh self-evaluations.

Together, these studies suggest that cultural and social-psychological processes interact in complex and iterative ways that defy straightforward, causal relationships. They move us beyond monolithic ways of conceptualizing the (usually negative) influence of culture on body image towards more complex models that acknowledge female consumers' creative, cognitive-affective strategies and self-critical attributions. The paper by Feather et al. reminds us of the need to consider ethnicity as a mediating variable in feelings about the body and clothes. Future studies need to address variability not only in social-psychological processes, but also in cultural meanings of the body as a function of intersections among gender, age, sexuality, ethnicity, and class. Otherwise, we will overgeneralize the relevance or applicability of social-psychological processes to diverse cultural contexts. We need to problematize and extend concepts such as social comparison if we are to reveal the complex uses of cultural and personal meanings in evaluations of body image.

QUANTIFYING THE TRANSMISSION OF ULTRAVIOLET RADIATION THROUGH CLOTHING

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Ultraviolet radiation (UVR) from the sun is associated with problems such as carcinogenesis, cataracts, sunburn, and photoaging. Although adulthood is the main time when skin cancer is detected, there is increasing evidence that UVR exposure during childhood is a major factor in the development of this disease. It is critical that parents be knowledgeable about the growing danger of UVR exposure and know how to protect themselves as well as their children.

Research into the solar protective value of clothing leaves many questions unanswered. Researchers do not use a standard method for quantifying a fabric's solar protectiveness and confusion is mounting among consumers as UVR protective fabric is available on the market. Various methods have been used to measure the UVR blocking capability of fabrics and to calculate the UVR protection factor and ultimately a sun protection factor (SPF). In vivo or human testing, radiometric testing, and spectrophotometric testing techniques have been used by researchers to measure the UVR transmission through fabrics.

It has been suggested that large spaces between yarns, characterized by a fabric's cover, will contribute to a lower SPF. In addition, fiber composition, fiber additives, fluorescent whitening agents, UV-absorbers, topical treatments, dyes and pigments should affect UVR transmission. Testing, using a spectrophotometer, has begun to determine if there are correlations between fabric parameters and SPF. Initial results show that a typical cotton jersey knit with an 83% cover has an SPF of 4. Whereas, a polyester fabric with an 88% cover has an SPF of 13 and a cotton print cloth with a comparable cover has an SPF of 4. Preliminary results indicate that fiber type is one of the factors affecting a fabric's protectiveness from UVR. Fabric structure and mass are also being examined to determine if they affect a fabric's protectiveness. A standard rating system needs to be developed to provide the consumer with a true UVR protective factor for clothing.
RECYCLED TEXTILE FIBERS: THE CHALLENGE FOR THE 21ST CENTURY

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The purpose of the study was to determine the attitudes of textile manufacturers toward the market acceptance of recycling textile fibers into new textile products. The objectives of the study were to determine textile manufacturers' 1) interest in and willingness to produce recycled textile products; 2) feasibility assessment of converting recovered materials into new textile products; 3) concerns regarding product quality; 4) marketing strategy for increasing retailer and consumer awareness and demand; 5) personal preference and attitudes in using textile products containing recycled materials; and 6) use of recycled fibers in existing production of new textile products.

Questionnaires were mailed to a population of 7 SICs (n=177) based on the probability that companies classified by these codes could recycle textile waste or use recycled raw materials in their current production. Ninety respondents returned the survey for a return rate of 57% (based on the adjusted sample size n=157).

Results concerning current disposal practices indicate that more than one practice is used. Medium to large size firms and Carpet and Nonwoven manufacturers are more likely to sell their waste to another company for recycling ($\chi^2=13.901$, df=3, $p=0.003$; $\chi^2=11.928$, df=4, $p=0.018$). Larger companies (n=500) are more likely to process the waste further within their own companies. ($\chi^2=17.173$, df=3, $p=0.001$). Medium to large size firms think it is economically feasible to recycle where small firms do not ($\chi^2=16.300$, df=6, $p=0.012$). Barriers that would most likely keep recycled textile products from successfully entering the marketplace were identified. They are lack of a market, lack of equipment, an cost of the product. Although manufacturers feel that recycling is beneficial for their companies (91%), they are not willing to produce products made from recycled raw materials (36%). The results of this study show that market research and efforts to increase consumer awareness are essential in order to encourage manufacturers to increase their use of recycled textile waste into new products.

PERFORMANCE COMPARISONS OF 100% COTTON AND 100% TENCEL FABRICS

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In 1989 Courtaulds International introduced Tencel, a cellulosic fiber known generically as lyocell, with claims of physical performance exceeding that of cotton and regular rayon. Furthermore, they claimed their new fiber was "environmentally clean" since recyclable amine oxide solvent was used in production rather than other polluting or toxic chemicals normally used in the production of other regenerated cellulosic fibers.

We found comparison studies of fibers, not fabrics, which supported Courtaulds' claim. Thus, our objective was to compare the physical performance of 100% cotton and 100% Tencel fabrics to see if the claim of superior strength applied to Tencel fabrics as well.

Using chambray and denim fabrics that were similar in all aspects except fiber content, we evaluated tearing strength, breaking strength, abrasion resistance, washability, and dimensional stability.

Test results for chambray were inconclusive, but results for denim generally supported greater strength for Tencel denim. However, both sets of fabrics met and surpassed the recommended standards for the usual apparel end uses associated with these fabrics. The change in hand and appearance of the Tencel fabrics after three laundering cycles was of greater concern to the authors. American consumers would likely find the changes objectionable.

There are indications that dry cleaning may be the recommended cleaning method for products made of lyocell. If this is the case, we question whether Tencel is truly pro-environment as claimed.
"GREEN" TEXTILES
DISCUSSANT SUMMARY

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This session's theme is textiles and the environment. Our three speakers approach the topic from two different perspectives: (1) how textiles protect us from the environment and (2) the recognition that our industry's products and processes pollute the environment and that there are actions we can take to counteract that pollution.

Recent developments in the production of recycled polyester carpet, "coke-bottle" denim, Fox fiber cotton and the use of alternate crop fibers such as kenaf and milkweed are encouraging signs of consumer and manufacturer acceptance of environmentally friendly textiles and production processes. The research presented in this session on protection of humans from UV radiation by specific apparel fibers and fabrics, a survey of North Carolina textile manufacturers' recycling practices, and an evaluation of the new Tencel fiber all contribute to the growing body of knowledge on the environmental aspects of our industry. Our discussion following presentation of the papers was lively and challenging and yet underscored the feeling that we have only just begun to tackle these problems. Opportunities abound in this area of research, both from the technical and consumer viewpoints.

RECIPROCAL BEHAVIOR AND THE RURAL COMMUNITY: CONSUMERS' PERCEPTIONS OF RETAILER-CONSUMER EXCHANGE

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Retailer and consumer reciprocal exchange relationships in rural communities were examined. Reciprocity is defined as the degree to which individuals expect cooperative action in an exchange relationship. This paper explored the proposition that reciprocity is a function of consumers' predispositional characteristics, their moral, social, and economic motives, and their level of satisfaction with interpersonal reciprocal exchange existing within the community structure. Scales were developed for motivations and level of satisfaction with reciprocity. Using Cronbach's Alpha, the reliability for the scales ranged from .63 to .87. Consumers were asked demographic information and a series of Likert-type questions which were prefaced by asking the consumers to consider the product category of home furnishings when responding. Six hundred randomly selected adult consumers in two rural Midwest communities were mailed a questionnaire resulting in a sample size of 469.

Results involving consumers' predispositional characteristics and their ability to explain consumers' motivations and their level of satisfaction with community reciprocity were addressed. Multiple regression analyses revealed the best predictor for consumers' level of satisfaction with community reciprocity was their level of satisfaction with living in the community. Univariate analysis of variance with Scheffe's comparison analysis revealed those more satisfied with the community were also more satisfied with the level of reciprocity they had experienced in the community. The consumers' sex was the strongest predictor of moral and economic motivation to reciprocate. Females appeared strong in their moral motivation, involving intrinsic values, while males appeared to be more motivated by economic concerns involving numeric value. Social motivation to reciprocate was significantly related to the consumers' level of involvement in the community. The more involved in community activities, the more the consumer was motivated to consider social concerns involving the approval of others. Characteristics of rural consumers' provided valuable information.
SATISFACTION WITH RURAL RETAILING: A GAP ANALYSIS

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Richard Feinberg, Purdue University
Sonya Meyer, University of Wyoming
Teresa Summers, Louisiana State University
Kelso Wessel, The Ohio State University

In an effort to promote patronage, rural retailers have attempted to focus all aspects of their businesses around the satisfaction of the customer. If research and theory on customer satisfaction can explain and predict patronage to individual stores, then this same research might be used to illuminate the health and well being of rural retailing. The goal of this research was to examine whether existing gaps between consumers' and retailers' perceptions of retail performance predict customer satisfaction with a community of retailers.

Researchers from 12 states participated in a survey of rural retailing in which data were gathered on the perspectives of consumers as well as retailers. A total of 1,284 consumer interviews and 1,040 retailer interviews were obtained.

A positive gap was defined as a situation where consumers were more satisfied with the retailing community than retailers thought they would be. Positive gaps were related to service activities provided by local retailers (check acceptance, well-trained sales personnel). Consumers held a more positive perception of the retail establishments than retailers perceived. Negative gaps focused on the product selection available in local stores. Consumers believed that merchandise was less competitively priced, lower in quality, and less exciting in style and selection than retailers perceived consumers would rate their offerings. Results of this study indicate that for rural retailing, the products offered by retailers are closely related to shopping satisfaction. Thus, improving service alone may not be sufficient to improve customer satisfaction with rural retailers.

CONSUMER PERCEPTIONS OF THE RURAL RETAIL ENVIRONMENT

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This study was part of the 12 state NC-192 Regional Research Project - Rural Retailing: Impact of Change on Consumer and Community whose purpose was to identify options that would maximize the retail environment of the rural community and increase retailer ability to satisfy consumer wants and needs. A telephone survey of consumers randomly selected from 48 communities with populations of 10,000 or less, located in counties classified as non-Metropolitan Statistical Areas, evenly distributed across the 12 state region was completed in 1992. A total of 1,284 useable consumer interviews were achieved. Data were analyzed using factor analysis and ANOVA.

Overall, findings indicate consumers perceive rural communities to be more viable than previously thought by researchers. As a group, respondents in this study hold positive attitudes about the local retail environment, the survival of their communities, are loyal to their communities, and are committed to their continued development. Factor analysis of perceptions of the marketplace produced six factors, Image, Environment, Price/Quality, Policy, Convenience, and Mismanagement. Significant differences in factor means were noted when ANOVAs were performed with selected consumer variables of community commitment, education, income, age, sex, years in the community, marital status, and economic base of the community.

Information about rural consumers is a major contribution of this work. Few previous studies have focused on consumers in small rural communities, and none have had samples drawn from as broad a region of the country.
COLOR SCIENCE IN THE TEXTILE CURRICULUM

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Textiles as a broad subject is inherently multi-disciplinary. Color science is a subject which significantly benefits all majors in textile programs. As scientists, sociologists, historians, designers, merchandisers, and marketers, our graduates should be able to specify, describe, and control color. Despite its familiarity, anything beyond the simplest explanation or description of color, such as an understanding of its causes, its measurement, and its use represents a major intellectual challenge.

Answering questions such as "why is the grass green" and "why is the sky blue" relies on physics (of light) and chemistry (of colored molecules). Explaining how color vision deficiencies occur in a family is a simple exercise in genetics. A course in color science is thus either a practical application of a previous science course, or a means to introduce scientific principles.

It is not often easy for textile courses to attract non-majors and generate high enrollments. General education no longer belongs exclusively within Colleges of Arts and Science. Color science offers opportunity in both cases.

Color Science has been introduced into the textile curricula at two universities, both for majors and non-majors. It has been offered within an Honors program, taught both as sole instructor, and more recently, has been accepted in a format taught with a member of the Fine Arts faculty.

A range of lab experiments using fairly simple apparatus has been developed to support classroom teaching. Convincing students that red and green light combine to make yellow and then showing them is a recurring pleasure. More sophisticated apparatus can help develop computer literacy beyond the trite. The continuing emphasis on such outcomes of a student career generates another benefit of this type of course.

This work was supported by grant USE 9196198 from the National Science Foundation under its Instrument and Laboratory Improvement awards.

CREATIVE RESOURCES FOR A VISUAL MERCHANDISING STUDIO

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Plans were created for a visual merchandising studio where an atmosphere of learning would provide students with the necessary merchandise presentation skills needed to compete in the job market. Facility planning as well as resource development were a part of an university grant.

The purpose of this project was to develop instructional supplements to the currently used textbook Visual Merchandising and Display, by Martin Pegler. Slides include key design concepts taught in departmental core courses required of all majors. These concepts are used as the foundation in the development of projects that meet the needs of the students in a newly integrated department of apparel merchandising, apparel design, and interior design majors. Student projects include visual display assignments, merchandise presentation, signage, and advertising techniques, and basics of store design and layout. These supplements can also be used as reference sources throughout the student's program.

Many students are unable to take advantage of study tours and see the many examples of merchandising and design concepts available in other parts of the country. During a New York study tour course over 100 photographs were taken of window displays and interior merchandise presentations of 20 retail apparel stores. Slides of window treatments, art principles, and design techniques pertaining to visual merchandising and a script were developed for a presentation.

Students evaluated the slide presentation with positive feedback and reported that the visuals and commentary helped them understand the terminology of the textbook. They also stated that the ideas and examples shown provided excellent stimulation for class projects. Some of the students who have difficulty in comprehension reported that the concepts of merchandising and design "made more sense" when they could see such a variety of examples.
FROM CAD TO ART: ENHANCING CAD DRAWINGS TO FULFILL THE ARTISTIC REQUIREMENTS OF DESIGNERS

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The popularity of computer-aided design (CAD) for pattern making has led to its use for fashion illustration and surface design. Many designers, however, dislike the mechanical quality of CAD drawings. These drawings can be enhanced to make them more acceptable to designers and illustrators.

Undergraduate and graduate apparel and interior design students enrolled in basic CAD courses were assigned a variety of design and illustration projects, including the design of repeat patterns, scarves, T-shirt logos, rugs, bed linens, fashion illustrations, and story boards. After learning the rudiments of AutoCAD® and ApparelCAD™ software, students experimented with unique ways to embellish their drawings.

For designs areas that required solid coloring, students found that crosshatching provided excellent filling, regardless of the shape of the area or object. They produced different effects by varying the hatch scale, hatching the same area with different hues, and combining hatch patterns.

Students plotted drawings on a variety of white and colored media, such as bristol paper, poster board, and watercolor paper. They also used various pens and inks to produce different effects.

Plotted drawings were enhanced with hand rendering, including coloring and shading with pastel, felt-tip pen, watercolor, colored pencil, crayon, and ink. Students made samples of all techniques and wrote recommendations.

Throughout the project, students were encouraged to concentrate on the design and outcome rather than on CAD itself. The use of CAD as an artist's tool was stressed.


A MODEL FOR TEACHING MERCHANDISING

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Merchandising students must be exposed to the most recent merchandising developments and procedures presently being utilized in apparel manufacturing and retail in order to be successful employees. A model for teaching merchandising was developed through in-depth interviews with personnel from three VF Corporation companies plus department, specialty, and discount retailers. Personnel interviewed included designers, product development, merchandisers, sourcing, purchasing, retail marketers, and retail buyers. Specific apparel personnel job titles with in-depth job descriptions and responsibilities were identified for each step in the retail supply chain (from design concept to product development to merchandising to retail marketing and merchandising).

Students relate theory to practice using this model by first investigating the origins of Haute Couture and the Pret as well as the rise of American designers. Next, students compare the product-oriented manufacturing process to marketing-oriented process, consumer driven manufacturing while examining the corporate organizational structure, culture, mission statement and the target consumer of the three companies. Students also identify marketing strategies and pinpoint the utilization of the marketing mix in the companies. The title and job functions of employees in the process are examined through utilization of the model. After each sequential job position is studied, students conduct externships, hold informational interviews and listen to guest speakers who are presently on the job. Finally, a class field trip is taken to one of the VF companies.

During the past four years, this model has been developed and tested with approximately 250 merchandising students enrolled in the Introductory Apparel Merchandising Class. Results are evidenced by students functioning successfully in internship positions and full time industry employment following graduation.
ASSESSING THE EFFECTIVENESS OF WRITING-
ACROSS-THE-CURRICULUM ASSIGNMENTS
USING STUDENT EVALUATORS

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In 1990-91, a "writing-across-the curriculum" philosophy was incorporated into four "core" courses in the
Merchandising Management program. The goal was to create developmental writing assignments across the curriculum.

After three years of experimenting with the teaching-with-writing philosophy, evaluation was necessary to ascertain whether this goal had been met. The purpose of this project was to evaluate how well the writing assignments built on each other to create a developmental learning process across the curriculum.

Writing assignments had been developed and evaluated by the faculty; however, student input was needed to assess actual effectiveness. Thus, a process for obtaining student evaluation was developed. First, evaluation criteria for assessment were established. The criteria included: (1) Are assignment purpose/objectives clearly stated? (2) What is a student's perspective of the assignment? (3) Are the grading criteria informative? Specific questions were developed under each of these general criteria. Three students were hired to evaluate the writing assignments. Students were selected based upon their knowledge of the course material, ability to effectively evaluate assignments, and to communicate their recommendations to the faculty. They were later interviewed about the developmental approach to the writing assignments and about the evaluation process itself.

We found student evaluators to be a constructive means for assessing writing assignments. They provided valuable feedback (e.g. how faculty might assist students in overcoming procrastination; how the directions for completing a project could be made more meaningful, etc.). Based upon this feedback, the assignments will be revised to provide students with greater clarity and guidance.

The evaluation process itself became a learning experience. The three student evaluators indicated that they had never before examined assignments from this viewpoint. Based upon our experience, we would encourage faculty to consider the merits of student evaluation of course material.

1 Project was funded by an Oregon State University Writing Intensive Curriculum Program grant.

EMPLOYEE DEVIANCE AND
ORGANIZATIONAL PREVENTIVE
MEASURES AMONG BETTER APPAREL
SPECIALTY RETAILERS

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Employee deviance (e.g., theft of money, merchandise, supplies, and time; use of employee discount for others) has long been a critical internal problem in business organizations. Paper-and-pencil honesty tests and background/reference checks may be used to identify quality employees and prevent some problems of deviance. No studies were identified that focused on better apparel retail stores in relation to the scope of employee deviance and use of preventive measures.

Five hundred randomly selected store names served as the sample for this study (365 deliverable). A questionnaire consisted of 1) questions that addressed the severity of deviance among three employee groups: managers/senior staff, sales personnel, and logistic personnel; 2) pre-employment screening methods used and their effective-ness in identifying quality employees/reducing deviance; and 3) demographics.

Responses from 55 store managers (15%) were usable for analysis. Managers per-ceived background/reference checks to be somewhat to very effective in identifying good employees (M=3.73) and in reducing loss (M=3.75). Severity of employee deviance among the three employee groups was perceived to be relatively low but varied across activities. Perceptions of severity of deviance was highly correlated across all three categories of employees (Kendall's tau; p≤.001).

Among managers of small retail establishments, however, employee deviance may not be severe. Future research is needed to compare perceptions of the employee deviance problem among various retail sectors.
MALE CONSUMER SATISFACTION WITH
SALESPERSON PERFORMANCE
AND STORE ATTRIBUTES

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The purpose of this study was to investigate male consumer satisfaction with sales personnel attributes and performance and to identify store attributes most important to male consumers where they shop for clothing. Attribution theory served as the theoretical framework for this study. The survey was completed by a convenience sample of 201 college-age men and measured male consumer perceptions of store attributes, preferences for and satisfaction with sales personnel services, and satisfaction with clothing shopping experiences. Data were analyzed using frequency tabulations, Spearman correlation analyses and Friedman tests. Respondents indicated price, quality, and selection of merchandise were the most important store attributes in their patronage decisions. They preferred full-service wherever they shopped, when buying a major clothing purchase, and when shopping for a gift. They expected extensive service when shopping in a high-priced specialty store and agreed that sales personnel should offer help to every customer. Respondents said they shopped for their clothing the most in department stores followed by specialty stores, with discount stores the least frequently shopped. Overall, respondents were satisfied with their shopping experiences. Significant negative correlations were found between service and satisfaction with style variety and satisfaction with price variety; between stock of newest fashions and satisfaction with stores/departments and satisfaction with price variety.

Attributes assigned by these consumers to retailers may change little as they mature. Results from this study could be useful to retailers in better serving their younger male consumers now and in the future.

CHARACTERIZATION OF SILK FIBERS AND
GARMENTS RECOVERED FROM A DEEP OCEAN
ENVIRONMENT

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Few garments composed partly or completely of silk have been discovered in marine environments. The purpose of the research reported here was to characterize silk fibers and selected silk garments removed from a trunk recovered from the deep ocean site of the 1857 wreckage of the S.S. Central America. Seventeen of the silk-containing garments were selected for investigation and characterization since they represent a range of fabric structures and garment complexity. The selected objects range from those with simple flat construction (ascots) and to those with three dimensional shaping to fit the body (waistcoats).

Experimental procedures for the analysis of the silk fibers included optical and scanning electron microscopy, x-ray microanalysis, and chemical tests for dye identification. The procedures for characterization of the silk garments involved the analysis and classification of the fabric structures associated with the garments, determination of physical dimensions, and identification of garment style/s.

None of the silk fibers are cracked or fibrillated although bulges in the fibers similar to those identified on other fibers were present in four of the silk items. It was difficult in some cases to determine the original color of the items because they were heavily stained and encrusted. Tin was found in the interior structures and along the surfaces of silk fibers from two garments. Whether used for weighting or as a mordant, the presence of tin affects recommendations for conservation.

Five different fabric structures are present in the neckwear and the waistcoats, including an unbalanced, warp faced fabric with two sets of warp and 2 sets of weft, a balanced plain weave, an unbalanced plain weave, and two that employ one additional set of yarns. While the two waistcoats are similar in style details and construction, there are differences in the lining fabrics used. Based on number, the ties and cravats appear to have been favorites since 6 of each type were found in the trunk; the ascots still retain evidence of the ways in which they were folded. Characterization of the silk fibers and garments is a necessary first step in recommending the most appropriate conservation methods and in understanding the role of silk in the male wardrobe of the 1850s.
LARRY LAROM, ALWAYS A DUDE?

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Larry Larom, owner of Valley Ranch, a dude ranch located 50 miles from Cody, Wyoming, was not a westerner by birth. He, like many young men born into upper class eastern families, visited Wyoming during the summer of 1911 as a break from his studies at Princeton University. However, unlike most easterners who visited the West as a diversion, Larom became part owner of a ranch and made his home in the West but visited the East a few weeks each year. According to Thomas Trimmer, foreman of the ranch in the 1950s, Larom "was always a dude" (Trimmer, 1993). Webster's (1967) dictionary defines dude as 1) "a man fastidious in dress" and 2) "an easterner in the West" (257). Larom fit the first part of the definition as evidenced by his letters, clothing, photographs, clothing. Was Larom, as Trimmer suggested, always an easterner in the West or did he truly become a westerner as described by the many reporters who wrote about Larom and Valley Ranch?

Research into these questions relied on letters, business records, photographs, magazine articles, annuals from Valley Ranch School, and clothing in addition to interviews with people who knew him. Secondary sources about the history of dude ranching and the history of Valley Ranch provided historical perspective for this study.

Evidence indicates that in many ways Larom remained an easterner in spite of his western residence. Larom remained eastern in many of his attitudes, especially those concerning people. The letters concerning his clothing show that he used dress to play a role as westerner. This is confirmed by the photographs which show a man who slowly became more western in appearance as time passed, yet indicate that he always seemed to be self-consciously playing a part as dude ranch host dressed fastidiously in western clothing instead of a ranch owner dressed in working clothing.


GOVERNMENT SPONSORED FOLK ART APPRENTICESHIPS: PROFILES OF TEXTILE ARTISANS

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State Arts Councils, under the auspices of the National Endowment for the Arts, have initiated folk art apprenticeship programs to "identify, document, honor and perpetuate the diverse ethnic, community-based, occupational and familial folk traditions." Fiber arts have figured prominently in the apprenticeship programs begun in the early 1980s. The purpose of this research was to 1) develop profiles of participants in a state Folk Arts Apprenticeship Program, 2) examine the profiles in the context of scholarly literature on tradition, and 3) assess the program's effectiveness in keeping traditions alive.

Twenty case studies were conducted with 9 masters and 11 apprentices who had participated in year-long apprenticeships. Data were gleaned from interviews, fiber art, photographs, and the apprentices' and masters' applications and proposed programs of activities. Folk arts practiced included quilting, weaving, bobbin lace, and stitchery. Narrative data were analyzed in two stages. Themes were first identified and described across participants. Next, two judges examined the case study data as a whole and formed groupings based on emphasis of particular themes.

Profiles suggest that two groups of artisans have been attracted to the program: Profile 1- Focused Artists with Ethnic, Community, and Family Support, and Profile 2- Diversified Artists with Interest in a Variety of Folk Arts. For Profile 1, textile artisans possessed strong ethnic and family identities. Their participation in the apprenticeship fostered socialization into an ethnic community with a prominent and focused textile heritage and allowed them to pass on skills and knowledge within the community. Tradition as reservoir and as selectivity were common among Profile 1 artisans. Profile 2 included artisans with intense affective attachment to a diverse variety of old, traditional crafts. The apprenticeship contributed to enhanced appreciation for cultural diversity and to participation in guilds with like-minded artisans. Invented tradition was practiced by some members of Profile 2.
DISCOVERING PATTERN AND MEANING IN DRESS
CROSS-CULTURAL USE OF DELONG'S VISUAL
ANALYSIS SYSTEM

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The purpose of our paper is to validate and illustrate the
cross-cultural use of DeLong's visual analysis of dress system
when used within the broader approach of visual anthropology.
Research for the two compared studies was done among the
Kalabari of Nigeria and in a Hmong American community in
St. Paul, Minnesota. Both of our studies concerned the
examination of the relationship between form and social
meaning.

In both of our studies the application of DeLong's
framework in a cross-cultural context required integrating the
theories of visual perception addressed by DeLong's system
into a more broadly based visual anthropology approach. We
employed a range of field methods resulting in bodies of data
from interviews, videos, photographs, case-studies and
participant observations in festival and domestic settings.

Visual analysis, as defined by DeLong (1987) is a
framework for systematic viewing of EuroAmerican dress as
it interacts with the body and surrounding environment.
Although the original framework utilized by DeLong was not
cross-cultural, our research indicates its potential for use in
other cultural settings under two conditions: 1) Fieldwork and
a knowledge of relevant cultural aesthetics precedes use of
visual analysis and 2) Interpretation is validated by cultural
informants.

Visual anthropology is an approach that examines patterns
of meaning within cultural data captured in art, dress and
photographic images. Our research utilized the camera's ability
to capture a full range of modes of dress which were collected
as data sets. Patterns of dress detected through visual analysis
of the photographs (Collier & Collier, 1986) were then
compared and correlated with patterns recorded in fieldnotes
and interview sessions. DeLong's visual analysis system
provided a useful means of structuring our visual data in order
to discover relevant patterns of dress associated with changing
gender roles for both Hmong and Kalabari women.

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CANADIANS' U.S. CROSS-BORDER
APPAREL SHOPPING PRACTICES

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The number of Canadians who cross-border shop in the U.S. increased from 1989 to 1991.
However, current data indicate that this trend is reversing. The majority of Canadians live within
two hours of the U.S. border and represent a potential market for U.S. apparel retailers. The
purpose of this paper is to profile Canadians who purchase textile and apparel products in the United
States.

A review of the literature identified the variables examined in this study: price, merchandise
assortment, product type, retail outlet preference, sales tax, and media exposure. A self-administered
survey was developed to interview 101 Canadian shoppers. The sample was 46.9% male and 53.1%
female, including 55.3% college graduates. Responses indicated that the language spoken at
home was French 43.9%, English 38.8%, French/English 15.3%, and other 2%.

Sub-samples of Canadian cross-border apparel
shoppers (N=60) and noncross-border shoppers
(N=38) were compared on demographic variables
and tested for significant differences (p≤.05) using
ANOVA. There were significant differences
between the two groups regarding spouse's age,
education, and language spoken at home.

In addition, travel time to reach shopping
destination, price, merchandise assortment, product
type, retail outlet preference, sales tax, the
exchange rate and media exposure influenced
Canadians' decision to shop in the U.S.

Results of this study indicate that approximately
61% of Canadians who shop in the U.S. purchase
textile and apparel products. These findings can
help U.S. apparel retailers plan strategies for
competing in the Canadian market.
ADOLESCENTS' CATALOG PURCHASING PATTERNS FOR CLOTHING

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Considering the growth of mail order shopping, the increased importance of children as consumers and as mail order consumers, the purpose of this study was to determine adolescents' patronage motives and non-motives when using catalogs for clothing shopping. In addition, the study examined the purchasing role structure, payment practices, label information sought, product-specific attributes considered, and shopping practices of adolescents in catalog shopping for their clothing. The consumer socialization process was used as the conceptual framework for guiding the research.

Self-administered questionnaires were given to 272 junior high and high school boys and girls who have purchased their clothing from a catalog in the past 12 months.

Findings suggest adolescents' motives for catalog shopping are that catalogs offer top fashions and unique, better quality clothing that is not available elsewhere. Adolescents' non-motives for catalog shopping are that they cannot try on the clothes and returning the clothes is a problem. Adolescents generally make clothing purchase decisions alone; however, when influenced, friends are considered the most influential people in the purchase decision. Adolescents' parents have more influence on higher risk purchases, such as coats, than lower risk purchases, such as socks. The adolescents' parents generally pay for the purchases, and the payment methods most frequently used are checks and store charge cards. Information generally sought by adolescents is size, price, and brand name; and, product-specific attributes most often considered are style, color, and fit. Adolescents tend to comparison shop by looking at each page and making comparisons within the catalog before purchasing.

GENDER APPROACH TO CONSUMER CHARACTERISTICS INFLUENCE ON CLOTHING EXPENDITURE

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The influence of shopping orientations on consumer behavior has been studied as a reflection of psychographics as well as demographics. Despite the recognized usefulness of shopping orientations, few studies have investigated the shopping orientations with respect to clothing expenditures. Another area of clothing studies that has been considerably neglected by researchers is gender difference in clothing behavior, nevertheless, most studies in the literature used either male or female subjects. This lack of research on gender issues in clothing may hinder the understanding of clothing behavior as it manifests itself in modern lifestyles that increasingly demand active participation from men as well as women.

The purpose of this study is to examine the relationships among demographics, some specific shopping orientations, and clothing expenditures. The primary focus of this paper is on the application of some specific shopping orientation to explaining clothing expenditures.

The data were originally collected and prepared by CBS News under the title, "CBS Morning News" Shopping Habits and Lifestyles Poll, January 1989. The sample included 594 U.S. adults over age 18.

The results of the gender-based regression analyses are as follows. As expected, income was positively associated with clothing expenditures. Marital status was a significant demographic variable affecting clothing expenditures for women, while it was age for men. Interestingly, no shopping orientation was significantly related to clothing expenditures for men while economic woman shoppers were likely to spend more on clothes. This finding may be interpreted that the more interested women were in good value purchases, the more likely they were to spend on clothes. This finding indicates that apparel retailers' promotional strategy may benefit from targeting women customers who appreciate bargain deals. Twenty percent of the variance in the men's expenditures on clothing was explained by demographics and shopping orientations, while thirty percent of the variance was explained in the women's. The gender variable was nonsignificant in affecting clothing expenditures when it was taken into account in an independent regression model using the total population. In conclusion, this study offers an implication that retailers and marketers in the apparel business can use to develop effective marketing strategy based upon the market segmentation utilizing both demographics and shopping orientations.
THE CLOTHING BUYING PRACTICES
OF BLACK WOMEN IN POTCHEFSTROOM

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Introduction. By the year 2000, approximately 21 million people or
67% of urbanised South Africans will be black and the buying power
of this group will be enormous. It is obvious that neither marketers
nor consumer educators can ignore these facts. The black woman was
traditionally the underdog but has learned to play a more prominent
role in the family during this century. She has been forced to seek
employment and to be the buying agent for her family. Although a
growing interest in the consumer behaviour of black women is evident,
the empirical information required for effective consumer education
and marketing strategies for this group is very limited, which calls for
investigation in this area.

The aim of the study was to describe the clothing buying practices of
black women with respect to why, where, how, what, how much and
when they buy, and what postpurchase behaviour they exhibit. A
general consumer decision model (Kuriloff et al., 1993:93) was
adapted and used as research framework for this investigation.

The research method involved the use of a structured questionnaire
which tested the components of the consumer decision making model.
The questionnaire was completed by 49 black female personnel of the
largest supermarket in Potchefstroom. Frequency tables, correlations,
means and standard deviations were computed where appropriate.

The results indicated that the aesthetic motive, the practical motive
(comfort), the status motive (quality and brand names) and the
economic motive (price), in this order, are the most important motives
for buying clothes. The purchase decision is mostly initiated by visual
forms of communication such as window displays. Clothes are mostly
bought at cash chain stores and credit chain stores, and reasons for this
are that these stores offer good service, a wide variety of quality and
price and render good value for money. Clothes are mainly bought
cash or through the layby-method. Clothes are often bought on the
spur of the moment, which is one of the reasons to which dissatisfaction
with purchases and cognitive dissonance can be attributed. The clothing items preferably purchased by this consumer
group are separates (mostly skirts and blouses or tops) and shoes.
They buy limited quantities, and purchasing clothing is probably not
their first priority. The biggest group of respondents buy their apparel
mostly at sales, followed by equal numbers buying impulsively when
they come across something they like. A commensurable number of
respondents buy their clothing at the beginning of the season.
Postpurchase behaviour was investigated in terms of consumer
satisfaction with apparel purchases in the past. Half of the respondents
had experienced disappointment with apparel purchases, the two main
reasons given for this being rash or impulsive decisions and inferior
quality of the product.

In conclusion, the results clearly indicate a need for consumer
education for black women, with emphasis on planning strategies and
knowledge regarding evaluation of apparel quality.

DRESS AND THE PUBLIC, PRIVATE AND
SECRET SELF: REVISITING THE MODEL

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As an elaboration of Stone's (1965) framework of the
relationship between appearance and the self, Eicher
(1981) presented a scheme that related dress to the
public, private and secret self. She conjectured that these
three aspects of self coincided with dressing for reality,
fun and fantasy. Eicher proposed that in any culture,
three conscious parts of the self are related to dress, the
visible "program" of an individual. Our paper critiques
the initial scheme and presents a revised model for more
precision in analyzing the role of dress as a system of
nonverbal communication. We also compare Eicher's
framework to other work on multiple selves and review
research that utilized it.

The public self is by an large rooted in reality. This
is the age, gender and occupational self universally
presented by dress. The second self proposed is an
intimate or private self presented in dress and demeanor
to significant others, close friends and relatives. The third
self is the secret self. This self may or may not be shared
with any other person and may use artifacts of dress to
engage in fantasy.

The revised model is presented as a grid with public,
private, and secret self intersecting with dress for reality,
fun and fantasy, providing nine cells within the grid.
These cells have fluid boundaries for dress that appear
in the interstices or margins. Two additional
considerations need to be superimposed over the grid; one
is the person's purpose in choosing the program of dress,
and second is the context, or definition of the situation,
for which the person is dressed.

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and Eicher, eds., Dress, adornment and the social
CLOTHING COLOR, SIMILARITY, AND FIRST IMPRESSIONS

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Color is one feature of clothing that may have an influence on the perceiver in a first impression situation. The present work focused on two types of first impressions; personality trait attributions and interpersonal attraction. Byrne (1971) has developed a model relating similarity to attraction. Using this model as a premise, it was hypothesized that similarity in personality traits, as well as similarity in color preferences (expressed as pleasantness of clothing color), would influence attraction toward a stranger. Based on previous work relating clothing color to trait attributions, it was also expected that clothing color would influence attributions of a stranger's personality traits.

After responding to pretests to determine their color preferences and self-ratings on personality traits, female university students (N=108) were each given personality trait information about a hypothetical stranger, which was contrived to be similar or dissimilar to the subject's own personality traits. Each subject was then shown an illustration of a female stimulus person, wearing clothing of a color the subject had judged to be pleasant, unpleasant, or neutral in the pretest. Subjects indicated their attraction responses and trait attributions on 7- and 9-point scales, respectively.

Statistical analysis of the data indicated that trait similarity was a predictor of attraction responses, in congruence with Byrne's (1971) model. Clothing color did not affect attraction responses or trait attributions. It was concluded that clothing color may not be readily used as a cue in making judgements about a person seen on only one occasion. Further research may be fruitful in identifying circumstances under which clothing color would affect person perception.

ATTITUDE CHANGES IN THE SOCIAL PSYCHOLOGY OF DRESS AND RETAIL CONSUMER BEHAVIOR--1984 AND 1994

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This study examined the differences in attitudes towards the importance of dress and related shopping patterns between 1984 and 1994. Two samples (1984: n=2,000; 1994: n=2,026) were randomly chosen from self-selected respondents to Glamour magazine's fashion survey. Survey responses were analyzed utilizing statistical techniques appropriate to specific questions. Statistical significance was set at α=.001.

In both 1984 and 1994, respondents ranged in age from the late teens to 70s (predominantly 20-40). Individual/household incomes ranged from less than $9,999 to greater than $100,000. The majority of respondents lived in the suburbs.

Likert-type scale and multiple choice survey questions were asked regarding general and situational attitudes of the importance of clothing. Results indicated a significant decline in the intensity of feelings regarding the importance of dress in all listed situations (by self; at work; with co-workers, man, parents, friends) from 1984 to 1994. There was a significant decline in beliefs about general conceptions of the importance of dress. One exception was wealthier women were significantly more likely to believe expensive clothes were worth the money.

These attitude changes were reflected in reasons for shopping and store selection. There were significant decreases in the numbers of persons who shopped for a psychological lift, to see what's new, or to spend time with friends. There were significant increases in the numbers of persons who shopped to buy something specific or, because there was a sale.

Store patronage also changed--there was a significant increase in the number of persons who said they never shop at department stores, and a significant decrease in the number who never shop at discount stores. Catalog shopping increased significantly.

A comparison of cohorts from 1984 to 1994 indicated that in general these responses were similar across all age groups; thus people seemed to be responding to overall economic and societal situations/changes rather than acting as cohorts. (An exception was in the type of sexy clothing women would wear--there was a significant difference by age.) The results of this study substantiate assertions concerning attitude changes towards the importance of dress and status symbols since the 1980s. This is reflected in store patronage and motivations for shopping. Future research would include factor analysis and gender and international/intercultural comparisons.

EVALUATION OF AN ARTIFICIALLY-COOLED CHEMICAL PROTECTIVE GLOVE SYSTEM

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Dermal pesticide exposure is increasingly recognized as a health hazard. Many working with pesticides fail to wear chemical protective gloves due to a decrease in manual dexterity skills and heat discomfort. The present study determined physiological data, psychological comfort perception data and manual dexterity skills of eight male subjects wearing four prototype glove treatments under controlled environmental conditions (85 ± 5 °F and 78 ± 2% relative humidity).

Glove treatments consisted of an artificially-cooled chemical protective glove with and without a glove liner and an uncooled chemical protective glove with and without a glove liner. Skin temperature and sweat rate were measured every three minuets for one hour on the non-dominant hand. Skin temperature was measured at four locations, and sweat rate was measured via a dew-point hygrometer at one location. Manual dexterity was measured via the Manipulative Aptitude Test and Purdue Pegboard Test. A simulation of pesticide mixing, application and cleaning was also completed.

The researchers found that the liner, the artificial cooling and a combination of artificial cooling and the liner provided positive results in the perception of comfort. Sweat rate rose steadily during the first twenty-one minuets of the test session regardless of treatment. After the initial rise sweat rate maintained similar readings for the duration of the test session.

Significantly lower hand temperatures were determined for the artificially-cooled glove treatment. Manual dexterity was slightly hampered in the presence of the glove liner for selected tests.
THE ART OF DEVELOPING
CREATIVITY IN APPAREL DESIGN

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The process of designing apparel offers students valuable opportunity to produce creative, artistic works. To motivate students to develop creative skills and originate apparel designs which emphasize innovation and artistic principles, a 5-step creative exercise (Stimulate, Ideate, Design, Evaluate, Revise) was developed and implemented in the Draping class.

During the first step, the Stimulation (1) stage, creativity and the art elements were discussed and practiced through a series of activities. Utilizing videos, slides and mental exercises, students were stimulated to visualize, be open to new approaches, brainstorm, contemplate color, think about line, be sensitive to form and use unusual materials. Students were instructed to further explore historic texts, journals and trade publications for ideas. Additionally, students were encouraged to consider the practical and functional values of apparel as secondary to an emphasis on creativity and originality. During their research and reflection, students were to ideate (2) and record their creative concepts in an idea log. After a synthesis of ideas, participants designed (3) their intended garments. As designs evolved, they were evaluated (4) and revised (5). The class members then constructed their garments.

The results exceeded the expectations. Several artistic, innovative designs and garments were produced. Also, based on student evaluations, the participants found the exercise to be an exciting, positive experience resulting in a desirable addition to their portfolios. Lastly, select projects were juried by the fine arts faculty to be included in the annual Undergraduate Art Show.

REFERENCES:


VISUAL ANALYSIS:
RECOGNIZING CLOTHING IMAGES

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Boswell (1993) categorized five clothing images for men based on personality types: conservative classic, updated traditional, sophisticated continental, arty eclectic, and adventurous sportmen. Each category was described in terms of personality and the corresponding preferred clothing styles. In the current project, similar image categories were developed for women's wear in order that women's appearances could be studied using the concept of recognizing images.

Pedagogical materials were developed after interviewing buyers of apparel companies and interpreting photographs in fashion magazines and retail catalogs. Then a set of twenty photographs were selected to represent characteristics of each image. Students discussed their perceptions and reasons for categorizing the clothing into the specific image type.

The value of studying various apparel images has the potential to encourage awareness of diversity in clothing as well as to sharpen the students' visual perceptions from an objective viewpoint. By incorporating a unit of lessons about apparel images into a design course, it has given students an opportunity for associative learning with regard to major concepts.

Results indicated that students were able to identify five image categories. Student evaluations indicated that they found the lessons about clothing images to be relevant and valuable, enhancing an objective perception when viewing appearances.
SOCIALLY RESPONSIBLE CONSUMER BEHAVIOR: BUYING APPAREL THROUGH ALTERNATIVE TRADE

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A socially responsible goal common to many alternative trading organizations (ATOs) is to help the poorest of the poor in developing countries. Pueblo to People (PTP), an ATO that retails ethnic apparel and other crafts from Latin America through a mail-order catalog, returns a large percentage of each sales dollar to craft producers with whom they work and assists the producers in learning skills that will assure sustainable business. ATOs know little about their customers. The purpose of this study was to gain an understanding of the role that values and attitudes play in motivating a socially responsible consumer behavior, i.e., the purchase of ethnic apparel from ATOs.

Data were collected with a mail survey of consumers (n=344) randomly drawn from the stratified mailing list of PTP. Path analysis was used to examine causal relationships among variables presumed to predict future intentions to purchase ethnic apparel from ATOs. The hypothesized relationships were based on consumer behavior and social psychological theories that suggest that purchase behavior is influenced by a hierarchical system of effects with abstract values and general attitudes underlying the more specific attitudes influencing purchase decisions.

The most predominant path suggested that strong global values, coupled with very unacceptable ratings of conditions in Latin America, gave rise to higher level of concerns for citizens of Latin America. Subsequently, the higher levels of concern led to stronger support for ATOs. In turn, higher levels of support for ATOs contributed to more favorable attitudes about buying Pueblo to People's ethnic apparel. Finally, more favorable attitudes about buying the apparel led to increased likelihood of future purchases.

DEVELOPMENT OF FABRICS FROM FOXFIBRE® NATURALLY COLORED COTTONS (COYOTE AND BUFFALO) AND EVALUATION OF FLAME RESISTANT CHARACTERISTICS

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The primary purpose of this research was to test colored cotton for flame-resistance in regard to federal flammability standards before and after application of U6P flame-retardant finish in a 25% concentration level. A secondary purpose was to assess the effects of the flame retardant finish on physical properties of the fabrics and the effects of care on the finish and fabrics. The sample for the study included two naturally colored cottons, Coyote brown and Buffalo brown, in two weights. The procedure included both flammability and physical testing and the application of a flame-retardant finish.

The 4 oz/sq yd Coyote fabric, before laundering, met minimum flammability requirements of the children's sleepwear standard. In reference to the motor vehicle standard, 10 oz/sq yd fabrics met the standard before and after application of the flame retardant and before and after drycleaning. For airworthiness, treated fabrics met the standard before and after drycleaning.

Overall, the flame-retardant finish made the fabrics flame resistant, but physical strength was reduced. Naturally colored cotton fabrics in Coyote brown and Buffalo brown were found to be suitable for use as upholstery in motor vehicles and airplanes. Thus, naturally colored cotton has potential usage in markets other than apparel.
Fibers from sugar cane rind were investigated as a biodegradable geotextile for soil erosion control. Research objectives included determining the extraction parameters that produced fiber bundles from sugar cane rind. It was determined that a sodium hydroxide solution of 0.05 N with mechanical action followed by steam explosion yielded useable fiber bundles appropriate for nonwoven mat formation. Appropriate geotextile requirements of physical compatibility, ease of installation, slope protection and stabilization, and cost effectiveness were investigated. Specifically, weight, density, strength, water resistance, light penetration, permittivity, flammability, and biodegradability of the sugar cane nonwoven mats and commercial products of coconut, straw, and wood fiber were determined by standard ASTM and AATCC test methods. Wood mats were denser than the other geotextiles. Sugar cane mats had a high biodegradability rate and were intermediate in thickness with lower strength, light transmission, water penetration, and better flame resistance in comparison to the other products. Although the sugar cane mats were visually similar to the other products, weight and thickness can be altered by amount of fiber used per square foot in mat formation.
Problem: White Horse Woman was inspired by a need to blend traditions embraced during an extended Native American experience with today’s traditional elegance. White brain-tanned deer and 100% polyester satin were the only fabric options considered to achieve the desired aesthetic feel and effect. The beads used were historically correct for the late 18th century, emphasizing the authenticity of the design. The designer found eagle feathers to be of great importance, as was the use of fringe.

Description: This wedding gown was created from white commercially produced brain-tanned deer over white bridal satin. The beading pattern used on the leather top of the dress was based on a traditional Sioux design, signifying “woman.” The bodice design, created with a combination of a red white-heart bead on top of a brass sequin secured with a length of leather fringe, forms a yoke at both the neck and the hips. The hem with a four foot train is also trimmed with this bead combination. A large amount of fringe accents the side seams and shoulders. Authentic pipe beads, made from hollow bones of a bird’s wing, form a choker. A disc of leather with more beads, plus two “eagle” feathers, adorns the hair. An “eagle” feather fan, wrapped with fringed leather completes the ensemble.

Techniques and Media Employed: The pattern for this dress was drafted using a princess line. The leather over-bodice consists of two deer hides tied with leather thongs at the shoulders and side seams. Each group of sequin/bead/fringe was hand stitched with artificial sinew (a waxed nylon thread). White chicken feathers were painted with black tips to simulate the endangered eagle’s plumage. All excess leather was fringed to the seam. Over 100 tin cones and small bells were attached to the tips of the fringe and produce a soft chinking noise.

At the Turn-of-the-20th Century, french hand sewing was a very refined technique used to create beautiful garments for special occasions. Today, at the Turn-of-the-21st Century, french sewing has re-emerged as a popular technique for the skilled seamstress. "Heirloom Hearts" was inspired by the desire to produce a beautiful keepsake dress reminiscent of the Edwardian Era.

The design was created through flat pattern, using Nelona Swiss Batiste fabric, embellished with a variety of textures, tucks, and trims. French machine sewing is used to piece together the insertion, beading, entredeux, and lace trim. Bullion roses are surrounded with shadow embroidery ribbons on the hearts and waistband. The swiss netting is tucked by hand and trimmed with insertion lace, while the hearts are attached with lace shaping. Entredeux joins the swiss netting and lace trim to the dress.

This heirloom garment is designed for a very special event in the life of a child. The handiwork, cost of materials, and time consuming construction, make it a true custom garment.
MAYBERRY, 3001

Chelsey Griggs, Central Washington
University, Ellensburg, Washington

The challenge for this research was to create the effect of a futuristic night skyline using interwoven Ultra Suede strips and other miscellaneous media. Black and two shades of blue became the buildings and the star-studded night sky. The strips of contrasting color were first glued in place, then backed overall with fusible interfacing for body and control.

Ideas from the past were included to reflect a historic flavor. A stained glass window was created with multi-colored strips of Ultra Suede, and faces from past centuries were laminated and woven in so they peer out from within the upper windows.

AUTUMN'S AGELESS BEAUTY

Linda Hamilton, Central Washington
University, Ellensburg, Washington

This Ultra Suede jacket was designed to complement in fit and style the mature figure. The cut of a kimono sleeve provides sufficient bust ease and comfortable room in the upper arm. Waist tucks were used to create the illusion of a trim waist. To help keep the lines as slenderizing as possible, a shawl collar with its slimming "V" neckline was selected. A cream yoke keeps the attention around the face, while black helps to minimize the hip and tummy area.

Falling autumn leaves and acorns in a gorgeous array of fall colors form an interesting and beautiful transitional design between the contrasting black and cream sections.
ERTE'S EVE

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Inspiration for this piece came from a drawing by the 1920's designer Erte. An interpretation of this drawing was created using a CAD system, and elongated to fit into the silhouette of the garment.

The dress was knit by hand using the stockinette stitch, the front opening was crocheted. Color changes were done using the intarsia method. White and black yarns used were a blend of cotton and rayon, the coral novelty yarn was a cotton core wrapped with rayon filament.

GUECA SOLO: A RITUAL SORROW SHIRT

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Images from Picasso's painting Guernica are used to express the anguish and pain experienced in grief and loss of loved ones. The asymmetrical design is intended to symbolize the sense of imbalance one experiences in grieving.

The designs were first drawn using a CAD system. The surface techniques used were batik, discharge dyeing, embroidery and beading. The sleeve bottom is embellished with lace which belonged to the designer's late aunt.
CHERBITT CHAPEAU

Sherry J. Haar,
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Lincoln, Nebraska, 68583-0802.

The problem posed was to create an accessory piece using 1) the artwork of Claude Monet for inspiration and 2) to employ machine embroidery as the major surface technique. A hat, "Cherbitt Chapeau" was created accordingly in January 1994.

Machine embroidery and mirror-work embroidery were the techniques explored. Machine embroidery involves creating a textural surface of thread with a sewing machine. Mirror-work embroidery is a type of hand worked button-hole stitch that traditionally surrounds a mirror.

The foundation fabrics included hand-dyed cotton, cotton/polyester broadcloth, and acetate velvet. Additional media used was cotton mop yarn, tulle, and iridescent sequence. The threads used in the machine embroidery were metallic covered nylon and cotton covered polyester. The floss for the mirror-work is cotton, and substituted for traditional mirrors were metal discs (found at a metal scrap yard) and "Fantastic Plastic".

The work of Claude Monet was researched by studying painting reproductions in books and viewing a documentary of the artist. Monet's fascination with the reflection of light on water is portrayed through the reflective discs in the mirror-work, metallic threads of the machine embroidery, and twinkling of iridescent sequence.

LIFE IS A STEPPING STONE

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The problem introduced was to create a major item of apparel or adornment for the body in which a variety of fabric manipulation techniques are evident. A kimono, "Life is a Stepping Stone", was completed in March, 1994.

The techniques used in manipulation were 1) strip cutting, 2) machine piecing, 3) fabric dyeing, 4) marbling on fabric, 5) fraying, and 6) machine embroidery. The fabrics selected were 100% cotton. Metallic covered nylon thread and iridescent sequence served as surface accents.

Attention was given to the placement, size, and color of fabric strips to emulate the flowing rhythm of Bargello patterns. Extensive experimentation was done with fabric marbling. Early attempts at marbling were not satisfactory, therefore the raw edges of the traditional underside became the fabric face, providing the element of texture and new surface for marbling.

"Life is a Stepping Stone" was inspired by the rhythmic waves of Bargello designs. Simon Sparrow's drawings done in pastels inspired the selection of colors.
This work is a summer coat and dress ensemble. It is designed to express the image of a modern building with the sense of surfaces created by reflective windows and steel girders. The traditional Korean material of ramie cloth is used for the hand dying method. The technique used is patchwork on the upper torso of the dress and body of the coat. The sleeves and collar are hand woven of ribbon to create texture. The gradation of colors is created by dyeing two complementary colors, blue and yellow. The graphic pattern gives a visual sense of three dimensional perception to the original two dimensional work. The pattern on the surface of the coat gradually becomes smaller as the eye moves upward. The motif gives a sense of perspective. Thus the materials and method are from the past but the expression is of the future.

FURROWED FIELDS:
LIFE FROM THE SOIL

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This quilt was designed and created for my parents, who will celebrate their 40th wedding anniversary this year. My father is a farmer, and my mother--among other things--is an avid quilter. My goal was to create a piece that would be symbolic of their life together.

"Furrowed Fields: Life From the Soil" was designed in the Amish tradition of quilt-making, with the use of black and bright colors of plain cotton fabrics and simple shapes. The diagonal strips of triangles represent life--colorful, erratic, unpredictable, and beautiful. The triangle strips are offset by diagonal strips of black, which represent the soil that has given my family life for generations. A series of borders frame the quilt: the 3-inch green border symbolizes the hope of a healthy crop; the 6-inch black border, more soil; the 2-inch triangle border, more about life; the 1-inch blue border finishes out the piece and is suggestive of a 1-inch gentle rain that always makes Dad happy.

Forty colors of cotton fabrics were cut into triangles and strips, and sewn together by machine. The triangle sections were stitched "in the ditch"--in the seams between each triangle. The black strips were stitched with a series of curved lines to resemble the undulating quality of tilled soil. The borders were stitched with four different patterns: the green border is stitched in a twisted rope pattern; the black border is stitched in a cable pattern; the triangle border is stitched rosin the seams between each triangle; and the blue border is stitched with a simple edge-stitch.

The queen-sized quilt will be presented to my parents in December of 1994, as a gift from their four children.

The design was inspired by a conversation with my sister, Mary Hegland Gusaas. Financial and moral support were provided by Mary Hegland Gusaas, Jon Hegland, and Edward Hegland.
Inspiration and color choice for this hand woven fabric were based on the Canadian Mounted Police uniform. Each section of the fabric was designed to enhance a specific garment pattern piece. Thus the striped border in the body of the garment was repeated to form the plaid collar. The woven bands in the sleeve enforce the uniform concept. Braided sleeve trim was designed using excess warp yarn. An antique, hand carved bone button was incorporated in the collar area to emphasize the historic costume element. The subtlety of the fabric reflects the conservative nature of the Canadian culture.

A combination of flat pattern and draping techniques were used to develop the garment pattern. Traditional hand tailoring techniques were used in the construction process including pad stitching, taping, hemming and a hand pricked lining. The fiber content is 100% shetland wool, woven in a twill variation, specifically chevron. Understructure materials consist of wool hair canvas, cotton twill tape and acetate lining.

A woven sample was completed prior to fabric construction in order to determine the appropriate type of weave and fabric pattern.

The combination of original fabric design, hand weaving, pattern drafting and custom tailoring techniques resulted in this unique and artistic garment. Recently, in a juried exhibit, Canadiana was given an award by the Michigan Surface Design Group.

The design challenge was to create a black evening jacket using a variety of fabrics, each having a different texture and light reflectancy. In this way, the jacket would "belong" to skirts, dresses or pants made from any of the jacket fabrics.

Inspiration for the piece came from a Dolman Cape dated 1870 from an historic costume collection. Pre-production sketching was done on a CAD system. Applique, reverse applique and trapunto were the techniques used to create the surface interest in the jacket.
CELEBRATION COAT 54: ODE TO JOAN

Robert Hillestad, Univ. of Nebraska-Lincoln
Lincoln, Nebraska 68583-0802

The underlying problem of this piece was to depict the lavish linear texture that is observable in the brush strokes of many of Claude Monet's paintings. The research process involved studying selected paintings by Monet through library research, observing them in museums and visiting the environment that inspired him in Northern France. The remaining part of the creative process was carried out in the studio by selecting materials from a large inventory of supplies, preparing sketches, carrying out the technique of hand knitting and painting selected areas with dyes. The garment form is primarily of raffia interspersed with yarns, tapes and threads of cotton and rayon. The collar is entirely of rayon tape painted with fiber reactive dyes.

CELEBRATION COAT 70: BRUSH STROKES I

Robert Hillestad, Univ. of Nebraska-Lincoln
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This piece is from a collection of garments inspired by the legacy of Claude Monet. The underlying problem was to manipulate yarns and modify their colors through the application of dyes to depict the rich color and texture that is observable in many of Monet's paintings.

The research process began by conducting library research, visiting museums to view Monet's paintings and touring the site of his inspiration in Northern France. Notes were made and photographs were taken on location. Later, the design was planned in the studio by making sketches and selecting materials. The hand knitted fringe technique was used to implement a basic structure with layers of texture. After the form was created, it was suspended from a dowel and brushed with fiber reactive dyes to create the desired effects of coloration.
CELEBRATION COAT 71: BRUSH STROKES II

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This piece is from a collection of garments inspired by the legacy of French Impressionist painter, Claude Monet and was implemented through a hand knitting technique for creating fringe. The underlying problem was to depict the coordination of colors in many of Monet's paintings.

The research process began, by conducting library research, visiting museums to view Monet's paintings and touring the site of his inspiration in Northern France. Notes were made and photographs were taken on location. Later, the design was planned in the studio by making sketches and selecting materials.

BLUE ISO (QUILT)

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Creating the illusion of three-dimensionality through careful management of light, medium, and dark value fabrics was the goal of this quilt. Blue Iso is a variation on a traditional one-patch quilt pattern known as Tumbling Blocks. More than one-hundred patterned fabrics were used to achieve the "cube within a cube" illusion. Because a single geometric shape, a rhombus, covers the entire surface, this quilt is a tessellation.

The research process included an examination of shapes used in both the decorative arts and quilts as well as the study of geometry. Tessellations have been used for hundreds of years in the decorative designs of many countries and cultures. Shapes that may be used to create single tessellations include all triangles and quadrilaterals as well as some pentagons and hexagons. For a shape to tessellate, the sum total of all adjacent angles must equal 360-degrees.

The history, mathematical concepts, pattern designs, and color strategies that underpin the use of tessellations in quilts is documented in my book, Tessellations and Variations, which is scheduled to be published by the American Quilter's Society in late 1994.

The artistic medium of this work is fiber and the techniques are hand piecing and quilting. The fabrics are 100% cotton and the batting is a low-loft polyester. The project was completed in 1993 and measures 32-1/2\(\text{in}\) wide x 36-1/2\(\text{in}\) long.
MOJHA YETI

Karen E. Schaeffer, University of Delaware, Newark, DE, 19711

Mojha Yeti (Sock Yeti) is a woman's thigh length coat and hat ensemble which combines the design approaches "Links from the Past" and "Materials and Methods." Materials used in the project are linked with our manufacturing and farming past and have been recycled into an ensemble which reflects the current conservation thrust, i.e., preserving fur bearing creatures, while at the same time having the appearance of a fur-like garment.

Problem Statement  The challenge of the project was to design a coat and hat ensemble which resembled animal fur from materials which would, under normal circumstances, be discarded - scrap leather, sock rounds, and feed and sugar sacks.

Techniques  Traditional construction techniques were used. The coat base is made from reinforced muslin with approximately 8,000 sock rounds folded in half and sewn to the surface in rows 3/4" apart. The lining was cut from recycled feed and sugar sacks and inserted in the coat.

The hat has a buckram base on which the muslin pattern pieces with sock rounds have been applied. The sock rounds are sewn 3/4" apart as in the coat. The leather stylized animal horns are sewn from scrap suede over a buckram base reinforced with florist wire to give them shape. Design holes were cut in the center of each horn piece. Lining for the hat is made from recycled animal feed and sugar sacks.

Media  Materials used in this project were: muslin, recycled sock rounds, scrap leather, recycled feed and sugar sacks and florist wire.

Fiber Content  100% leather (stylized horns), 100% cotton (feed and sugar sacks), 100% cotton (muslin), cotton, nylon, rayon - mix (sock rounds)

Research Process/Inspiration  Publications and slide presentations having examples of Tibetan dress and accessories were researched, primarily for the silhouette of the ensemble. Inspiration for the fur-like quality of the pieces came from the texture, color and bulk of the sock rounds themselves.

CONE WITH BULLSEYE

Barbara Trout, University of Nebraska Lincoln, NE 68583-0802

"Cone with Bullseye" was developed as a study in contrasts in color and manipulations in fiber relying on the decorative images of the Native Americans of the Plains for inspiration. A bullseye configuration was used as surface embellishment on robes and hides in various forms in the early plains culture. Notched and painted feathers referred to as exploit feathers were significant to plains warriors for visually depicting victories in battle. In this work, the notching technique served as a decorative element to contribute energy and movement to the piece.

The body of the cone was constructed with hundreds of half-hitch knots with an alternation of colored yarns to form the stripe configuration. A combination of flax and cotton yarn was used to create this compact form. The yarn ends that were the result of the knotting process were used to tie off small bundles of abaca fiber that form a continual spray around the mouth of the cone. The abaca was dyed to resemble the color of the sky. The piece was developed to depict a release of energy and a gradual upward movement. The diameter of the cone is approximately four inches. The cone with fiber spray stands approximately nine and one half inches high.
VESSELS WITH ROOF

Barbara Trout, University of Nebraska
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Coiling, knotting, braiding, and twining techniques were all utilized to create the elevated form entitled "Vessel with Roof." This compact, knotted form stands approximately eleven inches high and is elevated on stilts built from enameled twigs. The body of the piece was constructed primarily of waxed cotton and flax yarn utilizing a double half-hitch knot. The stripe and undulating patterns were created through an alternation of black, red and gold yarns. A twining technique holds bundles of abaca fiber in place to create a roof formation that is topped by braided bands. Colored wire provides an accent at the pinnacle of the structure.

Reflecting on the straw silos of Indonesia provided a key form of inspiration for this work. I examined various examples of containment that utilized forms of textiles as a building material. These storage silos were of interest not only because they were built from plant fibers and provided interesting forms to study but because they dealt with a variety of techniques that included twining, lashing, and plaiting. In this work, the verticality of the silo is interpreted using traditional basket-making techniques resulting in a small, vertical structure that is a departure from the traditional notion of hand woven basket formations.

DEAD END DESIGN

Carla Perez

Dead End Design illustrates the frequent limitation of many apparel designs -- embellishing only the front of the garment. This visual aide encourages students to use the entire body as their design palette by reminding them that are no stop signs (actual or imagined) at the shoulders and sideseams.

The A-line base garment of polyester/cotton trigger was underlined with broadcloth to provide additional stability. The nylon felt roadway and signs were edged in white piping for visual clarity. Soutache was used for lettering. Graduated widths of grosgrain ribbon help create the illustration of an approaching roadway. The hem, neckline, and armholes were finished with thick piping covered in the face fabric. A broadcloth lining finishes the inside of the garment.

In order to further emphasize the common (mal)practice of overlooking the garment back as a viable location for a design's focal point or inclusion in a design emanating from the front, the reverse side is void of color or motif.
FLORAL FINS

Elaine Polvinen
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Creative linkage was the intended goal, the intended result would be an enmeshment of techniques that would transform fish imagery into a work of art.

Nature was to be the theme, and trust in intuition to fulfill the desired aesthetic qualities of organic, sensual, flowing, rhythmic movements of fish forms.

The techniques chosen included computer designing, dyeing, painting and weaving.

The chosen subjects were sketched and scanned into the Gerber Creative Designer CAD computer software program. The program was used to design the imagery, keeping in mind that the final computer image still had to undergo several transformations before completion.

The computer design was printed out in color onto a transparency and than projected onto a dyed fabric background. The transferred image was than painted and sliced to prepare for weaving.

A painted warp of various fiber contents and yarn structures was prepared. The sliced painting was than woven in using different harness tie-up combinations for the positive and negative areas of the image. The desired effect of the woven structure was to enhance the painted imagery.

The completed image was then quilted and lined. The essence of the fish form was captured, through a new way of seeing, a new world of vision; the computer.

MADRIGAL COSTUME

Janet Hethorn, University of California Davis

Problem statement: Madrigal Costume was designed to be worn by a performer in a Madrigal Choir. The choir required that the costumes be of a Renaissance style, and of the type that would be worn by a lady of class. Each choir members had their main costume color assigned, so that the choir as a whole was multi-colored, but each costume was to be unique in design.

Techniques: The pattern for this garment was developed through a combination of flat pattern and draping techniques. The sleeve is a combination of a fitted upper sleeve, with a puff elbow, and horizontal gathers making up the lower sleeve. The bodice, with princess seams, is very fitted. The skirt is in two layers with the under skirt showing at the center front section.

Garment construction included a fully lined bodice and sleeve, quilted and padded center bodice front, (combining three layers for stiffness and depth), beaded (hand stitched and glued) upper sleeve and center bodice, rat-tail twisted with silver thread for placement in "ditch" of stitching, and thick piping, made of velvet covered cord. The pearl loops at the neckline were made from one single strand that was looped and secured in bias tape to form the lacy effect.

The hat was designed by shaping buckram (over a tennis ball cut in half) and then covering it with fabric and beaded trim.


Research process: The Renaissance time period was investigated for style details, and the choir member was consulted for her design input. The stiffness and reflectivity inherent in the fabric also was a contributing factor in the design process. Once the pattern was being developed on the dress form, many design changes and improvements were made. The most exciting activity was the beading. It added the finishing glimmer and richness that truly makes this a Renaissance costume for a lady of class.
COLLABORATIVE SILK PAINTING

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Collaborative learning involves setting aside power demarcations in the classroom with students and teacher going beyond cooperation to explore methods of learning together (Gamson, 1994). Collaborative silk painting was a learning method used in a wearable art class to encourage student exploration of the many techniques of painting on silk and to foster a collaborative spirit of learning. Basic information on the techniques of silk painting was presented to the students through lecture and demonstration. Students also read several articles on silk painting and artists who use the technique in their work. A length of 22 mm silk crepe on a stretcher was prepared as the "canvas" for the students. The students cooperated in selecting areas of the "canvas" that each student would like to paint. Each student experimented with a variety of techniques or concentrated on one technique to paint their area of the silk. As experimentation continued students often left their area of the silk to share ideas and techniques with other students. The finished painted silk yardage had a cohesive feel due to harmony in color; however, on closer inspection the style and personality of each student/artist is evident in the painting. The fabric conveys the fun and enthusiasm of the collaborative effort as students shared knowledge and techniques. After completion of the silk painting students worked together on an ideation project to develop clothing forms for the silk. Students talked about ideas and sketched ideas together and came to consensus on the form of the final product. A simple shirt style was chosen to provide maximum uninterrupted space to incorporate everyone's work. A "frame" for the painting was designed through the use of black detailing of collar, cuffs and piping. The detail parts were cut from an old kimono purchased at a thrift store. Students participated in a final critique of the collaborative project involving critical analysis of the collaborative form they had developed and analysis of the method used to develop the form. Most students agreed that collaborative learning is useful to future designers who will often be involved in team work and team decisions.


RED PLUS JACKET

Carol Bormann, Oklahoma State University,
Stillwater, Oklahoma 74078

Problem: In a search for more complex solutions to current geometric patterns using the block format, different combinations of cubic forms were explored varying both the size and configuration of the blocks. The design was expanded to create enough fabric to form the front and back pieces of a cocoon style jacket.

Description: Interest in Swiss motifs and a fascination with creating the illusion of volume using dark, medium and light fabrics resulted in the "plus" motif of the design. Red, black and silver create two different sizes of dimensional "plus" forms with occasional small white stars highlighting some of the surfaces. The base pattern is a variation of McCall's 4354 pattern. The jacket may be worn with a black satin strapless sheath for formal occasions or with a casual turtleneck sweater and pants.

Techniques: Standard piecing and strip piecing techniques were used to combine triangles of different colors and values to give the illusion of depth. The jacket is fully lined with satin acetate, but quilting was omitted to maintain the suppleness of the garment.
UNITING NATIONS
Bridal Gown

Carol Bormann, Oklahoma State University,
Stillwater, Oklahoma 74078

Problem: This bridal ensemble was designed as a one of a kind custom gown, train and headpiece. The objective was to convey the ethnic heritage of Americans while creating a unique and dramatic ensemble.

Description: Flags forming the train represent the merging of cultures. The full length sheath of white acetate satin has a large reversed collar with points framing the train. Thirty flags were placed to create a balance of red, white and blue throughout. The train's blue lining coordinates with the attendants' dresses.

Techniques: Flags were drafted on graph paper and enlarged. Flags with bilateral symmetry and no corner detailing were chosen for the upper rows to allow for tapering to shoulder width. The fabric was strip-pieced, appliquéd, and details on the flags were machine embroidered. For the veil, ribbons and stars embellish a purchased satin headpiece.

"UNITING NATIONS"
Flower Girl Dress

Carol Bormann, Oklahoma State University
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Problem: This custom flower girl dress was designed as a companion to the "Uniting Nations" bridal gown. The objective in the attendants' dresses was to continue the theme which conveyed the ethnic heritage of Americans.

Description: Puffed sleeves formed by elasticized casings frame the square neckline. The primary embellishment on the rich blue satin acetate dress with gathered skirt is a band along the hem line composed of seven red and white flags. Flags of Denmark, Switzerland, Japan, Greenland, Austria, Poland and Turkey provide geometric variety to form the patterned border. Although the flags are all the same height, they are proportionately different in width according to each country's specifications.

Techniques: After the flags for the design were selected, they were enlarged on graph paper to the appropriate proportions and patterns were made. These flags for the border design were strip pieced and appliquéd and then applied to the primary garment. The dress used standard construction techniques based on an adaptation of McCall's P405 pattern. Two United States flags, ribbons and stars embellish the flower basket. Five point stars fill the basket to serve as "flower petals" to be thrown before the bride.
VICTORIA'S BABY DOLL

Le Etta McCarthy
Merry Jo Dallas
Diane Sparks
Colorado State University
Ft. Collins, CO 80523

The purpose of this design was to create a contemporary dress from an historical garment dated 1908. The garment was first sketched in an assignment in Fashion Illustration class. The following fall the pattern was drafted in Flat Pattern class.

The fabrics used were silk velvet for diamond shapes and neck binding, cotton/rayon jaquard for bodice and sleeve caps, rayon chiffon for sleeves and overskirt, rayon lining. The diamond shapes were appliqued onto the bodice.

CHEVAUX DRESSAGE CLASS: VELVET INSET COAT ENSEMBLE

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The design problem addressed in the Chevaux line includes both the requirement for a senior project original line as well as creating a line that could cross over from authentic riding wear to contemporary fashion.

The inspiration for the Chevaux line comes from Karen's love of and experience with Hunter style English riding and showing. Research included surveying historical sources, current fashion, and 20th century equestrian wear. This contemporary riding ensemble features updated traditional styling in the pieces and the fabrics.

The coat is 100% wool flannel with cotton/rayon velvet collar insets and milium acetate lining with contrast piping. A variety of interfacings was used to create desired characteristics of shape, support, and durability in the collar and coat fronts. The vest is 100% silk basket weave variation, lined with acetate. The sweater is a jersey blended from wool, cashmere, and angora and has been styled to evoke the 1950's in the 1990's setting. The scarf is 100% silk, with a print reminiscent of the 19th century, and the riding breeches are cotton lycra with leather knee patches. The cotton fiber keeps the rider from slipping out of position.

Patterns were created using flat methods, both flat pattern and drafting. The coat features a deep tailored collar with wide lapels and inset trim, keyhole buttonholes with covered velvet buttons, back convertible riding vent which can be worn either open or closed, and elasticized center back waist to reflect current fashion. A leather equestrian chin strap accents the back waist. The vest features a front lapel with no back collar, and is lined to the edges. The jersey sweater has extended shoulders with covered pads, lowered armseye for movement, and is also shortened to eliminate tuck-in bulk. The neckline edge is finished with a binding. The riding breeches have no inseam to increase comfort and leather knee patches to increase durability.
The design problem addressed in the Chevaux line includes both the requirement for a senior project original line as well as creating a line that could cross over from authentic riding wear to contemporary fashion.

The inspiration for the Chevaux line comes from Karen’s love of and experience with Hunter style English riding and showing. Research included surveying historical sources, current fashion, and 20th century equestrian wear. The Riding Cloak ensemble is reminiscent of the early outerwear used by English hunters but is updated in the style lines of the cloak and the use of the leather equestrian chin strap for the closure.

The cloak is 100% wool herringbone with leather accents and acetate lining; the blouse is 100% textured polyester with covered buttons; the riding breeches are polyester/lycra with leather knee patches and velcro ankle closures.

All patterns were created with flat methods, both flat pattern and drafting. The cloak has 5 gores, leather double welt hand slits, and a lined hood. It required 5 1/2 yards of fabric to create the desired flare. The pullover blouse features a loose shaped turtleneck, reinforced only in the back to provide shape and softly finished so the front drapes. The riding breeches were designed with no inseam -- to facilitate riding comfort and to be authentic -- so the ribs are vertical in front but chevron in the back of the pant.

My interest in zoology as well as apparel design and construction combined in one were the inspiration for my garment. The design and construction of Red Serpentine #1 were done in such a way that the bottom edges of the layers were left free hanging, thereby mimicking a serpentine movement and the sound made by a slithering snake.

Special consideration was made because of the difference in dimensions between the dress form and my body. It was necessary to pad the shoulders of the standard form to match my broad and square shoulders. Little else could be done with the dress form itself to add the needed torso length. (I am 6'1" tall with extra length in both torso and legs.)

To compensate for the length differences, I marked the finished lines of the dress with soutache, calculated the difference for the missing length, and also marked adjusted draping guidelines. Then a muslin prototype was draped.

Four yards of red 60" rayon crepe were used, with all pieces cut on bias. Lining was 100% polyester in matching red.
Created for the designer market, by Christine A. Robinson, as an assignment within the Textile Design I course at Marymount University, "Oriental Expression" expresses the designer's appreciation and belief in the enduring applicability of eastern design concepts.

Loosely based on the kimono style, the sleeves are cut in one with the body with a separate contrasting band at the neckline and center front. This creates a large uninterrupted area to use as a canvas for the exploration of the decorative techniques of appliqué and quilting. The appliqué features eleven vibrant shades and patterns of silk duppioni to contrast with the black background, also of silk duppioni. The hand appliqued "Noshi" or streamers, the crane motif or "Tsuru" and the waves are machine outline-quilted in metallic threads.

**Problem Statement:** The consumer of 2020 provided inspiration for the Òtemperature-controlled cybersuitÓ ensemble. She is an avid virtual apparel consumer who enjoys utilizing her artistic license in designing her ensembles. She is able to try on computer-simulated garments, as well as manipulate these images or create her own. She especially enjoys integrating fabric textures and garment structure. Temperature-controlled cyber-catsuits are essential in the external environment as she moves from home to work to play. The cybersuit provides the base; all other garments are merely accessories.

**Description:** The cybersuit, fabricated in low-saturations of gray, green, and deep purple cotton/Lycra crushed velvet, features coordinating multi-striped silk jacket and skirt Òaccessories.Ó The cybersuit features front and back diagonal seaming in conjunction with traditional structural seams. The resulting multi-shaped garment parts are cut from the solid gray, green, and deep purple cotton/Lycra. The accessories feature a diagonally cropped, turtleneck jacket with multi-length sleeves and a center back zipper. Both the sleeve caps and the yoked miniskirt feature diagonal cutouts that reveal the different colors and crushed texture featured in the cybersuit. Stripe direction was controlled to emphasize the diagonal lines.

**Techniques:** Flat pattern techniques were used to develop the cybersuit from a catsuit sloper and the sleeves of the jacket. The accessories were draped. The cybersuit features a center back zipper and was constructed by serging. The jacket and skirt are flat-lined with burlap and lined with nylon using dressmaker tailoring techniques.
RAITA

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Dr. Catherine Burnham, BYU
Provo, UT 84602

Problem: Designing children's wear that is sophisticated looking, but still casual and comfortable for the child to wear.

Description: Cream and forest green striped pleated boy's pants with a buttoned yoke front (100% cotton). Loose fitting knit top (cotton/poly blend). Forest green hat with a fold-up front brim (100% cotton).

Techniques: In order to create the ballooning effect the pleats are placed close together. Each pleat was styled so that only the green stripes would show against the cream colored yoke. The straps were also designed so the green stripe would contrast against the cream color of the top.

Inspiration: These designs were inspired by a trip I took last summer to Finland. The colors I chose are complementary to the fair skinned Finns. Because the climate is so cold, children in Finland always wear at least one hat. The green striped fabric represents the abundance of trees in Finland.

SHARK ATTACK

Deanna Sandoval
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The problem was to create a unique and eye-catching draped swimsuit/cover-up ensemble that embodied a stated theme. "Shark Attack" was selected as the theme. The inspiration came from a camp song describing the humorous account of a swimmer and a shark. Current fashion trends of strips, lacing, and bands as seen in WWD and the Tobé Report were incorporated into the design. The target market is a flamboyant, body-conscious, energetic woman who wishes to exhibit not only her sense or humor, but also her sense of style.

Draping was the technique used to develop both garments. The cover-up was draped with the neckline and side slit zippers as an integral part of the design. The zippers may be closed or opened depending on the current attitude of the wearer. The swimsuit evolved from a basic tank with design lines drawn on the body form and strips of elastic draped between the solid areas to create the shark "bites" and provide modesty to the wearer.

Two-way stretch nylon & Lycra was selected both because of the stretch quality required by the design and for the slight surface shine that gives the wearer a sleek, chic look. A tear away backing was used to stabilize the garment where appliqués were applied. Large separating zippers were used for their decorative effect and because two separate stringers were required to create the V in the back neckline.

The solid portions of the suit were self lined with 1/4" elastic sewn to the seam allowance for stability. Openings were left in the seams for inserting the self-covered elastic bands that give the suit its shape. After being inserted in the seams, the ends of the bands were top stitched and reinforced. Each elastic band was stitched in the center while being stretched in order to keep the shirring evenly distributed. The finished suit is a unique design that expresses the humorous theme declared on the cover-up.
MARRIAGE OF THE CENTURIES

Linda Hamilton, Central Washington University, Ellensburg, Washington

This wedding gown incorporates design elements from the 17th, 18th and 19th centuries. White, silk doupioni was selected for the fabric because of its lustrous patina and crisp hand. The full skirt silhouette was best achieved by using deep inverted pleats, supported by double folds of gathered net. The White Cotton lace overlay was also folded into the pleats and was a lovely compliment to the white, silk embroidered doupioni bodice.

The bustle, achieved by hooking the bulk of fabric up and underneath the skirt, creates a functional and fun new look for reception wear.

ORCHARD ESSENCE

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Dr. Marilyn DeLong, University of Minnesota
St. Paul, MN, 55108

The original inspiration in creating this silk evening dress was to imitate the traditional Chinese architecture. The silhouette is long and slim, accentuated with two high side slits. The front and back bodice are actually composed of different Oriental shaped motifs and connected to form the architectural frame at the shoulders.

A quilting technique is used to sew each separate motif. All pieces are padded by hand and then connected. With the combination of Oriental motifs and Western quilting techniques, this dress has achieved a perfect blend of the essences of both cultures.

The dress and lining are composed of the same fabric, 100% silk. This bright red silk fabric highlighted with gold irregular prints has also contributed to the Oriental image of this design. The total look is completed with a matched flower-shaped hat. The hat, inspired by a drawing of an orchid flower, is formed by shaping a two-dimensional crinoline interfacing and then pleated into a three-dimensional flower hat.
THE WISH TO FLY

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University of Nebraska-Lincoln
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The underlying problem of this project was to create a garment using the technique of shaped weaving. To do this, I used two main techniques to make a vest: weaving and hand embroidery. First I created a muslin pattern through the draping technique. The pattern was then placed on a piece of corrugated cardboard and the shape was outlined with pins over which warp threads were strung. The pattern was extended from the front of the cardboard to the back to avoid the need for side seams. Pins were inserted on the back. Then, weft yarns of various types were threaded through the warp threads to carry out the process of weaving.

Acrylic yarn was used for the warp and strips of printed cotton fabric and silk for the filling. The garment was embellished with polyester and polyamide yarns along with found objects such as feathers, beads and pieces of metal.

The research process involved experimenting with not only various types of fiber and other media but different types of images. Samples were made from which one was selected for developing the final form and surface design.

THE LAST STORM

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The underlying problem of this project was to create an apparel design by manipulating fabric in one or more ways. To do this, I used several different types of techniques. First, color was manipulated by removing it with a discharge technique in several areas. Then, fabric was manipulated by cutting it into various shapes through the traditional garment construction technique. Finally, the surface was manipulated through the addition of stitchery and small textiles forms. Media includes fabric, fiber and beads. The outer garment is of velveteen and the lining is polyester.

The research process involved experimenting with various techniques to produce samples from which several were selected for conceiving the intended form and surface design. Although a clearly defined direction for the project was worked out in advance, options remained open for making changes as the project evolved.
This design draws inspiration from the lattice pattern of wooden supports in the traditional Korean paper-door, and seeks to create a piece of clothing that looks soft and natural and is easy to wear.

Harmony with the nature is the traditional theme of Korean designs, and like the paper-door that does not block natural light and crisp air from coming through but only modulates their passage, the objective of this design is to produce a piece of clothing that achieves an intimate harmony with natural surroundings.

Hemp is used for the blouse and, in order to produce a linen-like quality, crinkled polyester is used for the pants. The lattice pattern is created by the interweaving of strings with a clayball attached at each end to ensure stability. Wooden buttons are used for the blouse to add a natural touch.

Rouge was inspired by the curvilinear vase shapes. Achieving goals of using fitting techniques which incorporated straight, curved, and bias tucks to design one of a series of dresses for a contemporary, designer market was challenging. Straight, curved, and bias tucks form the body of the garment. These tucks also provide shaping. The fitted bodice with dropped, pointed waistline and the gathered puff skirt represent the vase shape.

This strapless evening dress was made from a red 100% cotton tubular single knit. A 100% nylon tricot was used for lining. Nylon net was used to support the puff. The bias tucks were developed with bias seams at the center front; the back has straight tucks. Several curved tucks were developed to fit the bust. Tucks were stabilized with an underlining of nonwoven interfacing. Side seams were reinforced with boning. A invisible zipper was set at the side seam.

The design was created by a combination of draping and flat pattern techniques. Draping was used to make the interfacing and lining. A ruffle of nylon net lining supported the skirt shape. This design was completed by May 12, 1994.
THE LADY OF SHALOTT

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My project goal was to create a costume for the Lady of Shalott, (a mystical character on the fringes of Arthurian legend) by combining historical costume pieces with modern techniques and original design. My inspiration came from the lyric lines of “The Lady of Shalott” by Alfred Lord Tennyson, as set to music by Loreena McKennitt. In my research I explored the cut, fibers, embellishments, silhouette, and overall feeling of the Medieval Period during the 11th-12th centuries. I tried to choose the most romantic pieces from the period and blend them with some modern techniques to create the best overall effect.

First, I chose colors which I felt were rich and earthy yet regal, natural yet mystical. Next, I chose fabrics. The undertunic or bliaut is made from 100% cotton, loosely woven with large yarns to approximate linen and the overtunic with wide sleeves is made from a polyester-rayon blend to approximate finely woven wool. I used woven trim to simulate embroidery, a girdle around the low waist, and a hand embroidered and beaded headband.

In addition to my research in historic clothing, I studied the character of the Lady of Shalott and found further inspiration in the paintings of J. W. Waterhouse and William Holman Hunt. This led me to try to symbolize the Lady’s life as a weaver held in bondage. The woven crown of the headpiece and the woven look of the cape, as well as the hand embroidery on the headpiece symbolize the Lady of Shalott as one whose craft has become part of her being. Symbols of bondage include the chain used as a girdle around the waist, the cagelike feeling of the crown of the headpiece, and the clinging of the cape like a spider’s web. Finally, the fragmented and unraveling appearance of the cape represents the Lady of Shalott ultimately leaving her prison and accepting the curse.

DRESSY DRESS FOR THE OLDEST OLD

Tanya Frey and Marcia Bauman, student designers
Dr. Lucinda Schoenberger, faculty sponsor
TC 468 Clothing for Special Needs, class project
Iowa State University, Ames, Iowa 50011-1120

The body changes with age, but ready-to-wear garments do not accommodate all of these changes. The goal was to design a moderately priced, dressy dress for a ninety year old woman to wear to a dressy occasion. Interviews were conducted with geriatric professors, caretakers and elderly women for body changes related to age and dress preferences of the oldest old women.

Most of the oldest old interviewees indicated that the dress had to: be pretty (although their definition of pretty varied!), fit, have a modest neckline (but not choke), colorful, and not too short. Caretakers and professors also requested that the garment be easy to don and doff, warm, easy care, not show spills, long enough to cover the knees when sitting, but short enough not to trip on the hem.

A basic pattern block was changed in the following ways to reflect our literature search of body changes related to aging: front neckline lowered, shoulder seam moved forward, bodice front shortened, bodice back lengthened and widened, sleeve girth widened, and bodice and skirt waist widened.

To aid in donning and doffing, a front placket opens all the way down the front so that the dress can be donned like a coat. The fastening system uses non-operable buttons sewn over Wavelok Velcro® to keep the front of the dress from gaping. The bias cut skirt and the crepe fabric (100% polyester) drape well and move gracefully adding to the simple elegance of the design. The dress is lined with pre-washed 100% rayon to add warmth and absorbency for the sedentary individual. Tatted lace trims the neckline and completes the garment.
SACAJEWAIA — "BIRD WOMAN"

Helen-Louise Hancey, Brigham Young Univ.  
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Dr. Mary Farahnakian, BYU  
Provo, UT 84602

Problem: Historical records show that animal leather and fur have been used by man to protect and adorn the body since the beginning of recorded time. The American Indian used the leather hides from various animals for their clothing. The hides were long wearing and had the natural property of stretching with the growth of the person. Thus, inspired by the leather and an interest in the history of great American women, this dress was created as a museum quality piece that would depict the type of clothing worn by a 16 year old Shoshoni woman who had been captured by the Crow and sold into slavery in the early 1800's.

Description: The Indian women did not use a set pattern or special sewing tools as we know them. To historically reproduce a dress, the design had to be simple so as to incorporate the hide in its original shape and size, thus limiting the cutting. The only cutting was to shape the neckline. The sewing construction is authentic in piercing holes in the leather, overlapping the pieces, and lacing them together using a long leather strip. The fringe follows the natural line of the leather edge and adds a decorative touch as well as being utilitarian--as a fly repellent, enabling the leather to dry faster, and allowing a person to blend with surroundings when necessary, as well as showing the personality of "Bird Woman." The clay beads add a touch of color and interest and denote that the wearer is from the Great Basin area of the United States. The design details of long fringe and beads also give the wearer a long lean look.

Techniques and Media Employed: Four hides of varying sizes were used in their original shape and size. Seams were made by lacing leather thongs across the edges of the garment pieces. The design and construction details give the wearer comfort, with loose fit, limited seams, and durability of the leather.

PERFORMANCE DESIGN:  
A SHAMAN'S DANCE ROBE

Barbara M. Trowbridge (Designer)  
Kimberly A. Miller  
University of Kentucky  
Lexington, Ky. 40506-0050

The purpose of the project was to design and construct a shaman's robe for Charles Lawrence, a practicing shaman. The inspiration for the design is the idea that a shaman's robe is a representation of his soul. Charles was given the shamanic name "Tsukuskun" by his elders. It means Golden Eagle--"he who flies from place to place weaving the web of connection" (personal communication with Charles Lawrence).

Utilizing an adaptation of Dejonge's functional clothing design process (Watkins, 1986, p.vii-xi), research was undertaken to support the evolving design. This research included a literature review of shamanic history and costume, in-person and phone interviews with Charles Lawrence and on-site observation of his shamanic work. Expanding on the functional design process, the designer has formulated a new process called "Performance Design": which focuses on the "performance image" or "mask" desired. Further study is planned in this area.

The robe is machine constructed of 4 layers of 100% silk and 1 inter-lining layer of 100% cotton batiste. The outer layer (emersion dyed, hand painted and embellished raw silk noil) represents the wings and feathers of the golden eagle. Each "feather" is lined with hand painted (Japanese wax resist technique) silk charmeuse. The next layer, multi-colored kimono and handpainted silks (gutta resist technique), is pieced in the Islamic Spiral pattern representing the "sacred spiral" of life. The 12 animal medallions at the outside points of the spiral and the ocean animals on the inside lining represent Charles' power animals. Important shamanic symbols "appear" through the translucent ocean lining. The "Performance Design" concept, robe design, silk painting and construction are all original work by the designer.

CHITON

Laura Nelkin,
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This handwoven garment represents a study of classical form and shaping. The design is derived from a classical Greek chiton, or Ionic peplos. The dress is meant to convey the linear simplicity of this time period. The design, while being adapted to the twentieth century, expresses the elegant simplicity found in the garb of Ancient Greeks. The handwoven fabric, made of bleached and dyed tussah silk, is constructed from an altered bronson lace structure woven on an eight harness loom. This fabric structure maintains its opaqueness while still containing a luminescent and lacy quality. The meander border is used to highlight the design lines while it reinforces the classical Greek reference. The belt was made by using a patterned card weaving technique. This garment is made from loom shaped pieces, which is a traditional mode of construction for handwoven garments.

NEFERTITI, GODDESS OF THE PAST AND FOR THE FUTURE

Gwendolyn Krause, Central Washington University, Ellensburg, Washington

This jacket was inspired by the famous bust of Nefertiti, a glorified woman from the past who held a position of respect and authority. The challenge in this design research was to capture the beauty of Egyptian jewelry through contemporary materials. Emerald green Ultra Suede is the background fabric with Nefertiti's image on one side and her hand on the other. A gold and black pyramid is on the back. Brilliant shades of Ultra Suede, gold metallic tricot, free hanging gold ornaments, and gold cording are combined to form a three-dimensional effect.
Integrating art and fashion in one technically challenging piece was achieved by designing a very full cape to showcase a handpainted, arctic-inspired panorama. Learning to work with the dyes, researching and creating a composition of glaciers, achieving color balance within the painting, and adapting the painting to complement a three-dimensional design all provided technical challenges. The painting's composition and the pattern pieces were simultaneously engineered to integrate the garment seams with the lines of the painting. The silk noil garment pieces were painted with crucial seams sewn and were then taken apart to set the dyes before final construction. Lapped seams sewn with a narrow zig-zag stitch and monofilament thread were found to be the least visible seaming technique. A flannel interlining provides body, and the turquoise rayon lining gives a complementing color accent to the cape's flares. The final touch, which completes the arctic theme, is an "icy" handmade fiberglass closure.

As a result of my travels, I have developed an interest in the natural designs found in exotic flora. While in Florida, I photographed a palm tree because the pattern of the bark fascinated me, a fascination which became the inspiration for my design. I have attempted to create through a layering of fabrics and ornamentation a design that mimics the effect of the palm tree's multi-layered bark. The palm tree, as a symbol of both nature and its endangered state, captures for me, the need for a fresh approach and respect for the environment necessary for the new millennium.

My challenge was to create a garment with a "new fabric" that communicates my source of inspiration and the environment around us. To achieve this I employed a combination of various fabric techniques such as pleating, fraying, drawnwork, pintucking, candle-wicking, and beading (including peyote stitching) appliquéd onto an outer corset bodice over a boned underdress. The woven waistband treatment reflects the bark of the palm directly, while the unusual accessories of the braided, rolled and shredded banana leaves for the hair and the silk-leafed arm band emphasize the link to nature suggested by the "new fabric" of the bodice.

The garment is made out of a variety of natural and synthetic fabrics: cotton, cotton blends, polyester, polyester blends in colours inspired by nature. The foundation uses boning, twill tape and interfacing.

My interest in clothing and textiles has always been in the area of design, incorporating construction details and artistic interpretation in fabric manipulation. This dress is a result of that interest. It is a wearable art evening dress, an apparel that foregrounds aesthetics, the manipulation of materials for new effect, surface design techniques and couture construction. On its own the dress is static, but when worn, it highlights the dynamic qualities shared by all living things.
Inspired by historical research, this project incorporated styles of the 1920s and 1930s into a design for the modern woman. It is targeted toward the upper income woman, who wishes to express her individuality and independence without losing a sense of femininity. The goal was to create comfortable yet feminine garments of haute couture quality reflective of the 1920s and 1930s.

Off-white crepe was used as the fashion fabric. Draped on the bias, the bodice was gathered softly around the bust and waist, originating at the shoulder. A thigh length scarf, to be wrapped around the neck, was secured at the same shoulder. Below the waist a six gore, slightly flared full-length skirt was attached to complete the dress. On the interior, a lightweight polyester lining was used for a smooth and finished look.

For added exuberance and flair, a fully beaded belt-skirt was assembled by hand. Green, yellow, pink, pearl, and crystal glass luster beads of Czechoslovakian origin were chosen for their aesthetic contribution to the fashion fabric. Using organza, the belt was designed and hand-beaded. Having restrung the beads to the desired length, each strand was attached to the belt. Once this was completed, a leather backing was added, complete with closures for functional wear. This belt-skirt rests on the hips, where bodice and skirt join.

Draping on the human form was the design method utilized. Test garments were draped and fitted, then transferred into paper patterns. These paper patterns were used to cut out the fashion fabric. The pieces were assembled using conventional machines and standard sewing techniques.
ROSY DELIGHT
Audrey L. Stewart
Virginia Tech
Blacksburg, VA 24061

The creation of Rosy Delight was inspired by velvet. The soft, light, textural fabric demanded a design that was both bold and sensual.

Step number one was to consider the problem identified. Only one permanent structural seam was allowed.

The bodice was begun on a fitted muslin pinned to a mannequin. The velvet was gathered, pinned and stitched to define the shape of the body without darts or seams. The rest of the velvet was draped around the body and over a shoulder until the sculpting was complete. A seam was sewn on one side.

A pink satin lining was draped, fitted on the model and hand sewn to the gown. The details were also added by hand: zipper, beading, floral accent, and hems.

The finished product is a purely sensual piece. The rich rosy-cherry velvet with frosty highlights, drapery sweeping around the body, controlled gathering accented with tiny points of iridescent light, mingle to form a study of contrasts, an elegant Rosy Delight.

PLAY AT SHIBORI
Joyce Huizinga, Sue Parker, Clare Podemski
The University of Alabama
Tuscaloosa, AL

The book, Shibori, The Inventive Art of Japanese Shaped Resist Dyeing by Wada, Rice, and Barton, provided the inspiration for the fabric design. Issey Miyake was researched and provided the inspiration for the romper and matching scarf. To meet class requirements the design incorporated few seams using darts for shaping along with a gusset, zipper, and pocket. Freedom, flow, and aesthetic appeal were design goals.

The Shibori fold and wood resist technique was used to dye the white, plain woven 108” wide cotton/polyester sheeting. After folding the fabric on the diagonal, the romper was draped on a Wolf dress form. Exterior midriff fitting darts release into tucks at the hipline. A fitting dart, located on each shoulder, shapes the shoulder line. To enhance easability of movement a gusset was inserted into the crotch area. Serging with complementary colored thread finishes and decorates the hem and scarf edges. The asymmetrical neckline, with button enhanced hook and eye closures at the shoulder and underarm, direct attention to the face.
FRUIT BOUQUET

Designer: Oanh Nystrom
Sponsor: Karen LaBat
University of Minnesota
St. Paul, MN 55108-6136

The inspiration for this design was sources found in nature with a focus on fruit. The purpose was to combine black and white with saturated hues to reinforce the ground/foreground relationship. A deeper meaning of the visual form is that life is not black and it is not white, it is an array of colors. The designer was striving to overcome the limitations of fabric as the sole medium for dress. The techniques employed to convey the visual message were the adaptation of the Asian farmer's headdress form interpreted in black leather and enhanced with an array of delicious-looking artificial three-dimensional fruit. The headdress is lined with black and white striped taffeta to coordinate with the dress. The black and white striped taffeta summer dress has an empire waistline and is box-pleated with an invisible center back zipper. The black leather bolero has seven black buttons and soutache braid loops down the center front. Panels of photographic fruit images are sewn onto the bolero to carry the fruit bouquet theme. The form was developed through an original draping technique.

INNOCENCE

Designer: Oanh Nystrom
Sponsor: Karen LaBat
University of Minnesota
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The purpose for this design was to express innocence as not always having to pertain to white, as is the case with the majority of white wedding gowns on the market. A second purpose was to challenge form and function with the exaggeration of a circle. Monotone hues with an accent of another hue were used to achieve balance. The form of the Asian farmer's headdress was used as the bridal headpiece created with the use of tulle and accented with three faux silk flowers. The empire waistline taffeta dress is supported with boning. Seventy-three pearl buttons and soutache braid loops form the decorative closure down the center back. The over-dress of tulle is removable and is accented with nine faux silk flowers asymmetrically arranged. The trimming is X-crossed in front and back of the over-dress. The sleeveless elbow bell or "elbell" is accented with thirty-three pearl buttons and soutache braid loops on each. The "elbell" has heaving interfacing to enhance shape and weight. The shape of the dress was draped and the costume hand and machine stitched.
GEOMETRIC GARBLE

Eulanda Sanders
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Inspiration for this piece was geometric motifs on an Art Deco jewelry box. The motifs and silhouette of the dress were drawn using ApparelCAD. The figure-ground relationship in the surface pattern was created using black ovals, semi-circles, arrows, lines, stripes and large color-blocked areas against a white ground.

The dress was hand-knit using the stockinette stitch. Color changes were made by using Intarsia and Fair Isle methods.

PACHINKO COAT

Alison Kondo
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Sponsor: Elaine Pedersen, Oregon State University

The "Pachinko Coat" was inspired by a trip to Japan. The flashing neon signs and whirling wheels of the pachinko parlors lit the night. By day, their glitter was subdued against a background of gritty sky. I wanted to capture these contrasting images and incorporate them into a reversible coat with a traditional Asian cut. The coat is cut kimono style with no shoulder seams so that it can be displayed on a stand, as many kimonos were and function as interior decoration as well as wearable art. The motifs were applied in an asymmetrical design, both to reflect Japanese design traditions and convey the chaos of the pachinko parlors atmosphere.

The base fabrics are black silk taffeta for the night side and undyed raw silk for the day side. The appliqués are silk dupioni. Glass rhinestones are used on the night side to simulate the neon lights and opal glass cabochons are used on the day side.

All the stones are rim-set so no prongs will catch the clothing beneath the coat. The appliqué was hand sewn, in keeping with the Asian tradition of extensive hand worked embellishment on simply cut garments. The edges are bound with striped dupioni silk bias tape. The extended front panels overlap, making no other closures necessary and keeping the coat fully reversible.
++/- RELATIONSHIPS

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Dr. Joann F. Boles, Virginia Tech
Blacksburg, Virginia 24061

++/- Relationships is a swimsuit designed to reflect the inspiration stemming from the swimwear of the 60's as well as the perpetual visual contest between positive and negative space. The wearer's body works with the design to create the ++/- relationship. The suit challenges the viewer to participate in the design in order to determine which is actually the positive space and which is the negative space.

Lycra was selected as a participant due to its body conformation qualities. Silver was selected because of it's reflective nature, again, encouraging the viewer to participate in the design. In essence, the entire design challenges the viewer to be an active participant in the garment.

--- MANCHU MEMORIES

Nancy O. Bryant
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Corvallis, OR 97331

Problem Statement: To incorporate fabrics from several neckties into an ethnically inspired outfit.

Inspiration: This design is inspired by the Manchu woman's costume of China's Qing Dynasty (1644-1911). Manchu women wore long skirts until the end of the dynasty, when the wearing of trousers became fashionable. I interpreted the lower garment to represent both old tradition and new fashion, with an aproned pant design.

Description: The jacket and aproned pants are made of ribbed iridescent Thai silk, with black warp and blue weft. A variety of trims, braids, and 3 of my father's silk neckties ornaments the outfit.

Techniques: The pattern was created by flat pattern design. Around the jacket neckline, the striped bias necktie has been shaped to contour, creating a pinwheel effect.
This piece demonstrates that drawing and painting can be a matrix for apparel design. Drawing was used to develop the pattern. Trompe l'oeil painting was used to create the garment's surface design.

Inspiration was drawn from the color, texture, and form of barns surrounding my Indiana home. Research included observation, sketches and photography as well as reading books about barns.

Midwest Memories is a long, cotton twill-weave coat depicting architectural and decorative features typically found on barns. The angular raglan sleeves represent a barn's garbral roof. The coat's front is a double-opening door trimmed with leather strap hinges, brass studs and a hex sign. The back of the coat displays an advertisement that farmers frequently allowed to be painted on their barns by the product's manufacturer.

Draping and flat pattern techniques were employed to develop the initial prototype. Barn features were sketched on the prototype to obtain style lines, pocket design and closure details. The final garment was basted together and painted with procion dyes using air brush, lettering and water color techniques. Garment construction involved lapped and inset seams and application of leather trims, hardware and snap closures.

The beauty and biological diversity of the rainforests provided inspiration and a design challenge for this piece. The problem was to design a special occasion garment depicting the rainforest's riotous color, varied shapes and fascinating textures that would not overwhelm a petite-sized woman. Research was multi-faceted. Books and photography relating to rainforests were collected. Interviews were conducted with individuals who had traveled in Costa Rica, Guatemala and Panama. Personal observations of the jungle foliage and wildlife of the Yucatan Peninsula yielded sketches for the final painting. Garment silhouettes, that were flattering to petites, and compositions for the coat's design were tested.

La Selva Chaqueta de Costa Rica (jungle coat) is an ankle-length, petite-sized evening coat made of douppioni silk. The coat's surface is hand-painted to represent the animal and plant life one would encounter in a rainforest. The painting composition was first sketched on a muslin prototype, developed through flat pattern techniques, to determine style lines and shapes of the coat's outer edges. The silk garment was then cut and basted together and painted with procion dyes using air brush and water color painting techniques. The coat was disassembled for dye fixation, re-assembled and a hand made soutache frog closure was attached.
The purpose of this project was to explore new methods of lace appliqué, beading, and embellishment available to home sewers in the fabrication and creation of a royally elegant bridal gown. The bride wanted a beautiful formal gown fit for a princess but suited to an outdoor wedding and a dinner/dance reception. Inspiration for the gown was found in the flowers and leaves of the mountain meadow reflected in a lake that formed the wedding altar setting. McCall's 6390 provided the structure for the design. Using resources in area fabric stores, a cotton floral brocade was selected to carry out the theme and to provide wearing comfort for the bride. A variety of lace edging, lace appliqué pieces, strands and packages of sequins and pearls, fabric covered buttons, braided loops, and ribbons were purchased. Some of the laces were either too white or too yellow for the soft white of the brocade so they were dyed as needed using tea.

After the gown was fitted in muslin, couture construction techniques for cutting the fabric to strategically place and match the floral motif and for fitting using boning, interlining, and linings were employed to enhance the structure of the gown. The artistic embellishment of the gown included edging and beading the three fabric roses and leaves for the focal point at the back waist. The roses were repeated just under the pouf of the leg-o-mutton sleeves. The sleeves and the bodice front were embellished with lace appliqué pieces to add interest and beauty to frame the face and hands. Additional lace edging with added sequins, pearls and ribbon decorate the hem of the gown and train and the apron. Subtle buttons and loops were added on and under the apron to allow the train to be bustled for the reception to keep the bride's hands free. The gown is closed by hook and eye tape covered by 31 functional buttons and loops. The sleeves have tiny button closures, as well.

The New Native was inspired by the love of and respect for nature held by the Native American. The sweater fabric simulates tree bark using the purl side of the fabric. The fabric was also turned sideways to enhance the effect. The fabric for the sweater was knitted on a bulky knitting machine using rayon and cotton/rayon blend yarns. The skirt has a visual texture created by the blending of cotton/rayon and wool yarns. The bottom of the simulated wrap skirt is accented by the raw edge of a leather hide. The sweater has a raw leather edge at the wrist as well. The necklace is made of leather and two deer antlers locked and laced together. The goal for the ensemble was to incorporate a tribal and contemporary look. The target market is the high-end art-to-wear consumer. Date completed: May of 1994.
Inspiration for this evening wrap came from the desire to capture the essences of fire and night in a functional work of art. Silk jacquard was selected for its elegance, its capacity to allure and its ability to move with a special grace. The desire to add several colors and textures while creating additional patterns of movement resulted in inserted sections, appliques, bindings and trims to vary the weight of specific design areas. Both machine and hand stitching were required to obtain the desired effects. The techniques used determined the ability of the silk to move.

Research was of a practical nature. The first draping for the garment and its long circular flounce was of thin lining fabric. The final draping was on a model using the fashion silk with sections of design determined by fabric and body movements.

The irregularly shaped pieces, varied bound edges and random stitching of fabric created the desired results of unpredictability. The uncertainty and movement of flame, of the night and of life are represented in this design.

This garment is one of a series entitled "Vested Interests" in which the designer explored methods of incorporating games and other personal interests in the design of apparel. Inspiration for the piece was the game of backgammon played on a board patterned with triangular shapes called "points." A primary problem in its construction was the selection of a method to easily detach the back of the vest so it could be placed on a flat surface for an impromptu game.

Flat pattern design was used to create the V-neck, squared armpit holes and style seams of the vest design. The points were secured with zigzag stitches to flat garment sections. Lining was placed on the wrong side of the shell fabric and the raw edges of both fabrics covered with a stitched binding. The shoulders, back side panel and center front are held together with large, flat skirt hooks and eyes. Sculpey III™ polymer clay was used to make disks which became buttons with hot-glued button shanks as well as matching playing pieces.

Points were developed using the MacDraw®II program on a Macintosh® IIci computer for ease of manipulating and testing various point sizes and shapes.

The "board" fabric is camel Ultraleather®, claret red points are Facile® and black points are Ultrasuede® chosen to eliminate edge fraying; all three fabrics are 100% polyester fibers and non-fibrous polyurethane by Springs Mills. The vest was lined in a 100% polyester crepe-effect fabric which serves the function of hiding interior stitches.

A sample of gridded pattern fabric was made to test garment size as well as scale and placement of points. Small fabric samples were made to determine the most appropriate attachment technique for points, potential problems with handling lined edges and fastener/separation method for back and front of vest. Attaching vest back methods tested and eliminated included ties, hook and loop fasteners, and a flat braid with slight stretch for button loops. A variety of ideas for securing the requisite 30 playing disks and dice to the garment were explored and eliminated; the storage solution is a small pouch bag worn as an accompanying belt.
A personal ornament of precious stones...amethyst, ruby and coral, this sweater gilds the wearer with the rich colors of precious and semi-precious stones. Hand loomed on the knitting machine in 100% cotton yarn, the sweater is embellished with old world beads. The focal point is a collar using the pin-loom weaving technique. By combining the yarns of the sweater with strips of woven fabric, a unique textural effect was achieved. The body of the sweater was knit sideways for minimal intrusion of seaming and rhythmic movement of the color story from front to back. Further texture was achieved by varying the stockinette stitch with areas of purl stitch. Contrasting hems, rolled center front edges and lasso style tie closures complete the kinetic feeling of the sweater.

"Symmetry of Cultures" explores the shared multi-cultural aesthetic of a melting pot population. This unique hand-loomed coat and shawl draw inspiration for pattern and color from tribal cultures interpreting that aesthetic into versatile knit dressing. Knit from cotton/lycra yarn and accented with ethnic beads, the theme is interpreted using a bleach discharge technique. All pieces were knit from black yarn onto which a pattern was taped out and a bleach solution applied. This ensemble is part of a larger collection which explored a variety of motifs and garment shapes as well as the variation of color achieved with different dye lots of the same black yarn.

The shawl can be worn as a headwrap or as an extension of the coat. Textural interest is added by incorporating needle-out-of-work patterns.
PARTY FOR PICASSO

Janet Hazard-Ambrose
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The goal for this ensemble was to create a fun, art-to-wear garment, a contemporary color way and graphic image with a gesture drawing of Picasso. The chosen solution was the use of a checkerboard partially dissolving, allowing space for Picasso's famous gesture line.

The fabric was designed and produced with the aid of a computer and interfaced with a computerized knitting machine. The fabric was first drawn within a basic paint program then downloaded to a knitting machine. The colors and fibers used were finalized during the sampling process.

The vibrant color way reflects innovative and challenging colors sometimes used by our contemporary culture. While black and white photography does not represent colors of similar value, be assured the colors are vibrant and the pattern well defined by a vibrant difference in hue. The two groups of colors used are a very brilliant salmon and fuchsia/purple combination. Adding to the visual movement is a blend of matte and lustrous yarns. The past and present is also blended by the use of synthetic yarns along side fine wool yarns.

The target market for this garment is the high-end, art-to-wear consumer. Date completed: May 1994.

DECONSTRUCTED GOWN

L. Susan Stark
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The problem was to design a garment in which the inner structure was the focus of the design. Inspired by the "Centre Pompidou" by architect N. Foster, the structure of a garment, like the frame of a building, becomes the essence. Outward exhibiting of this structure was essential to this piece. The boning, underlining, interfacing, and lining become important elements of the design.

Besides architecture, the recent couture deconstruction-ists served as the philo-sophical inspiration. The silhouette was inspired by Charles James.

The gown is a strapless deep pink wool bodice with multi-colored nylon tulle skirt. Bodice employs all reused fabrics: wool crepe for outside fabric, woven silk broadcloth lining and woven sheer silk under-lining, felted and hand dyed wool underlining. Skirt employed 36 yards of three colors of fine tulle with wool crepe waistband.

The garment was draped on an understructure built from a boned and felted wool body. Couture techniques were employed due to the delicate "reouped" fabrics. The exposed construction of the right front bodice creates the conflict between decon-struction and traditional couture of the soft wool crepe. Multi-colors of tulle in the skirt were used to achieve an interesting design element.
SHIBORI PRESENT

Catherine Black
Texas Tech University

The purpose of this project was to design and construct a garment using shibori. Shibori a traditional tie-and-dye technique of Japan emphasizes the action of manipulating fabric. It is a dyeing process by which designs are created when the fabric is pinched, folded, stitched, and gathered.

I was inspired by the traditional Japanese kimono silhouette for this piece. A second inspiration came from ribbon wrappings on birthday present, and how each ribbon is a separate pieces but yet all ribbons work together to create an overall effect. In this kimono the "ribbons" stream out from the "square of the knot" found in the upper left front and back of the design. The curved shapes in the design represent individual ribbons, similar to those seen in a noshi kimono.

Flat pattern manipulation was used to create the 74 pattern pieces used in this kimono design. Individual pieces were then cut using white muslin. The pieces were then tied and/or stitched using traditional shibori techniques. One technique included individually tying thousands of peas in place with string which created both small and large circles. Individual pieces were then dyed using fiber reactive dyes. Red and blue dyes were blended to create an analogous color scheme. Individual pieces were then stitched together and the kimono lined.

The kimono was constructed of 100% white cotton muslin, lined with 100% polyester. This project was completed May 14, 1994.


MINI-DRESS II

Lisa McPherson, Drexel University
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Mini-dress II is one of a pair of thematically linked dresses conceptualized by Issey Miyake and constructed from a commercially available pattern. Mini-dress II reflects Miyake's preoccupation with inventive drape, sculptural form, and unusual textiles.

Through the execution of this dress I have attempted to provide an answer to the question, "What will characterize special occasion wear for women of the future?" Firstly, and very traditionally, the dress is overtly luxurious. It is made from one-of-a-kind, hand-painted silk organza yardage utilizing time-consuming resist techniques. The individualistic "signature" of the hand, when combined with careful attention to craft, has distinguished luxury goods at many points in history and I feel it will be a particularly important status marker in dress for the coming century. Mini-dress II is modern as it is sensual in a non-exploitative manner; the woman of the future will be inclined to show the beauty of her body in subtle ways, for example, in adopting garments of transparent fabrics that reveal and conceal. The dress is also cleverly simple, both in drape and in its lack of labored construction detail; it folds up and under to form its own shell/support. Shaping devices, fastenings, edge treatments, and inner construction have been kept to a minimum, creating a fabric "film" or skin surrounding the body.

Lastly, the dress proposes that garments embodying meaning or reflecting personally held convictions will be more appealing to the woman of the coming century. Mini-dress II is inspired by Kalighat painting, the popular Indian art form of the late 19th century. The many blue arms of the demon king Ravana circle the body of the wearer, but like much raw emotion, the arms and what they represent (destructive power, anger, death) are literally and figuratively buried—here, by overlays of color and resist. This mystery reflects my belief that cultural content in dress (references to myth, ethnicity, or spirituality) may become even more important to the woman of the future than they are today.
LA MODE DE PRINTEMPS

Marie Bulleri
Kathryn E. Koch
Central Michigan University
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The ensemble was inspired from a storyboard made from magazine pictures and fabric swatches. A more tailored look was desired to reflect the look of designers such as Giorgio Armani who designs tailored garments with a fashionable approach. Although tailored, the ensemble still wants to be fashion forward. The title of the piece means "The Fashion of Spring" because the ensemble was not only designed for spring but the name gives it a certain flair that can be truly expressed only in French. The plaid blazer, made from 100% linen with a 100% polyester lining, falls to the knees, with a slit in the back. It has a notched collar and two buttons down the front. The pattern for the blazer was designed using draping techniques. It is a great blazer for a dressy outfit, or dressed down with jeans. The vest is made from 100% silk and lined in 100% acetate. It has eight silk covered buttons down the front, a weskit hem and two front panels made from satin jacquard. The vest was designed using VersaCAD. The brown, 100% linen pants are complemented by a waistband, a pleated front, and wide legs. The pants were designed using flat pattern techniques.

HAREM DANCE

Leslie Gardner, Oregon State University
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Teacher-Sponsor: Nancy O Bryant, Oregon State University
Corvallis, OR 97331

Traditional belly dancers' costumes were the inspiration for this design. Of particular interest to me were the vests worn fastened under the bustline to reveal a decorative bra and full harem pants gathered in at the ankle. A similar look of fullness is created in my pants design with eight inverted pleats that are stitched closed at the hem. Iridescent taffeta, which is used to make the lined, boned, and underwired bra, is also used as pleat backing in the pants and jacket back.

I added raglan sleeves to the traditionally sleeveless vest. The jacket fastens under the bust with two sets of buttons.
FREEDOM WITH FLARE

Bette Worral
sponsor: Nancy O. Bryant
Oregon State University
Corvallis, OR 97331

The fabrics used for the jacket are two different patterns in black and white cotton ikat. The jacket was draped with straight grain at center and bias at side seams. The front band continues to the back as a standing collar. A back yoke overlay extends over the shoulders of the kimono sleeves. Tassel fringe finishes the crosswise grain edges of the overlay, neck band and welts of pockets.

The short, flared top is red crepe-backed silk satin. The crepe side has been used for the front and back pieces, and satin side is used to bind the neck and armholes and to form a decorative facing for the hem.

The pants are of black ribbed silk. Straight grain is used at center front and back. The grain drops in pleats across the front and back, ending with true bias side seams.

A TAPESTRY OF THE PAST

Jill E. Herrmann
sponsor: Nancy O. Bryant
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Problem Statement: To bring historic styles of clothing into the modern realm and look stylish, not dated.

Research Process and Inspiration: Research was done on European men's dress of the early eighteenth century with documentation from historic costumes texts. The coats and waistcoats of this era inspired me to create a fitted jacket with flare, pleated insets, and creative use of buttons. The pants were inspired by the cigarette-legged, Hollywood styles of the late 1950s.

Description: The jacket is made of an upholstery-weight rayon/acetate striped tapestry fabric with silk dupioni pleated insets, lined in rayon. Another rayon/acetate tapestry fabric is used for the long fitted vest. Silk dupioni is used for the high-rise waist pants.

Techniques: The patterns were created by flat pattern design using my personal slopers. This required using my basic blouse and skirt slopers to create patterns for a sheath, pants, and a jacket with a two-piece sleeve.
VOYAGE

Katie Kuykendall and Traci May-Plumlee
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In keeping with the ITAA competition theme "Mapping our Course for the Millennium," an engineered fabric entitled "Voyage," was created. The designer for three weeks worked with Holt Manufacturing in Burlington, North Carolina to design and produce the fabric. Experimenting with motifs from the strike-offs of "sublimation" printing papers inspired the dress, as well as the fabric print.

The patented "Holtset" process involves a special printing technique called "sublimation," a process which involves heat, pressure, dwell time and dispersed dyes to transfer images printed on paper to synthetic fabric. Over fifty hours were spent tearing and manipulating thousands of pieces of richly colored sublimation paper printed with maps and ocean motifs.

The intensely colored, high resolution print was then transferred onto Guilford Mills' "Elegance," a two-way stretch, micro-denier fabric.

After planning placement of the engineered print onto the dress, the designer draped sample fabric on a mannequin and developed a final pattern.

To complement the fabric, an asymmetrical snugly fitted short dress was designed. This dress is an open shouldered style with a single strap over the right shoulder. The strap ties through a loop placed above the teardrop back opening.

SPANISH ROMANCE

Jeni Rupert
University of North Carolina/Greensboro
Sponsored by: Janine W. Manley
Oklahoma State University

Problem Statement and Inspiration: The purpose of this design was to create a soft, romantic ensemble for a festive evening event. The target market was for career women, 18-34 years old. Inspiration came from the laced corset and peasant shirts of the Cavalier period, the 60's mini skirt and the Spanish toreador. Combining these varied influences enabled me to create an avant garde look for the 90's.

Description: The beige polyester georgette peasant blouse featured a ruffled neckline and long sleeves with ruffles at the wrist. The lined vest of black cotton/polyester brocade is hip length with an inverted pleat at the side seam and a laced front closure. The lined mini skirt of black brocade has a faced waistline with a sheer black ankle-length polyester georgette extension.

Techniques and Media Employed: The ensemble was created using flat pattern techniques in a beginning flat pattern design class.
MAMBO GOLD

Angel Roberts
University of North Carolina/Greensboro
Sponsored by: Janine W. Manley
Oklahoma State University

Problem Statement and Inspiration: This dazzling club ensemble was inspired by the Mambo, a South American dance, and the 1960's hot pants. Target market was the young, sophisticated woman between the ages of 18-26 who enjoyed being the center of attention.

Description: The midriff blouse was made of sheer silk and metallic patterned organza featuring a surplice neckline with ties that wrap around the body and tie at center back. The blouse has three-tiered mambo ruffle sleeves accented with pink velvet bows. The hot pants are made of pink velvet and interlined with chartreuse polyester. Gold grommets were placed along the sidesseams of the hot pants and golden cord used for lacing. The grommets and lacing act as a decorative effect and function as the closure for the garment.

Techniques and Media Employed: The garment was developed using flat pattern techniques. Ruffles were made with joined fabric circles.

ARABIAN NIGHTS

Co-designers
Angel Roberts
University of North Carolina/Greensboro
Janine W. Manley
Oklahoma State University

Problem Statement and Inspiration: In the flamboyant style of Bob Mackie, a gold and periwinkle evening ensemble was developed as a celebration of the female body. Inspiration evolved from the 1001 Arabian Nights stories and the shape of a trumpet. The target market was young sophisticated women.

Description: The polyester gold satin bra was linked to a turtleneck collar and a trumpet-shaped hip-hugger skirt lined in periwinkle taffeta. The skirt overlay featured shirred panels at the hip sidesseams. The shirring created a draped effect across the abdomen and back hip. The trumpet-shaped periwinkle and metallic gold sleeves attached to the bodice at the neckline. The fringed rectangular wrap was made of crystal-pleated silk and metallic fabric.

Techniques and Media Employed: Flat pattern techniques were used for the garment. Shirred panels were created with machine basting, then stabilized by hand.
EYELET TUBES

Julia Wissman

Recycling was my source of inspiration in producing a garment made entirely from vehicle inner tubes. The problems I encountered was 1) to find material that was light and pliable enough to be assembled into a wearable garment, and 2) to develop a design that incorporated the rugged material with feminine styling. The original material was in a circular shape which after draping lent to the feminine design.

My research stretched from visiting junk yards and land fills, to hardware stores and leather shops for means of assembling and decoration.

The ensemble consists of two pieces, a surplice wrap vest an a flared miniskirt. Both pieces are of black neoprene inner tubing punched and scalloped to resemble eyelet lace. The pieces are held together using copper rivets, which also form the closures. Both skirt and vest display some of the original marking and wear of the inner tubes.

The garment design is the result of draping. The vest consists of an entire car tire inner tube, while the skirt is one fourth of a truck inner tube. Both were cleaned and shined using "Armor-All". The lace effect and holes for rivets were achieved using several leather and nail punches. Darts on the skirt were made possible using contact cement.

"EVE IN THE FUTURE" -- THE REBIRTH OF EVE

Alison Tsang

The inspiration for this theme came from the first women -- Eve. I took Eve as my central idea, she is the link with the past and my design acknowledges her influence and her presence in all woman as we approach the millenium. I believe, based on my research, that women in the year 2000 will aim for individuality and sparkle in dress while still reflecting concern for the environment. For this reason I chose the color green for my design. The asymmetrical cut expresses women's desire for individuality while the sensuous fabric texture adds sparkle and expresses pleasure in dressing. The garment consists of a fitted dress made out of 50% polyester, cotton faille and polyester netting, with an overskirt and hat made from 100% polyester satin and taffeta. The skirt's "bubble" lining was created by machine gathering the satin fabric in two directions using elastic thread. The hat uses origami techniques of folding. This new millenium version of Eve wears nothing but this, and she is about to ring the doorbell of the Twenty-first century!
SHIRRED ELEGANCE

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FALLING LEAVES

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This softly elegant, ivory, 100% wool jersey dress sizzles with style. It is targeted for the mature woman and scaled to the petite figure. Festive but not frilly, it works for both after-five and semi-formal wear. The softly shirred yokes emphasize the shoulders. Cording of 100% acetate satin accents the shoulder yokes and slightly dropped, V-shaped waistline. A blouson waist contrasts with the flared, tea-length skirt.

The pattern was developed using the flat pattern method. Construction techniques are highlighted by a lined bodice and a hand-picked zipper. Date of completion: December, 1993.

The purpose of this knitwear project was to explore the future possibilities that "desktop fashion design" technologies can provide for both designers and textile artists. The project used computer aided design tools and a digitally controlled knitting machine to both design and knit yardage that would then be cut and sewn into a coat. The "Falling Leaves" maple leaf motif was inspired by an 18th century fabric from Okinawa. Leaf placement was based on traditional Japanese asymmetrics. The swing coat design was developed using flat pattern and draping techniques, with final garment design controlled by the usable width of fabric. Creation 6™ software was used to create the fabric motif design which was then downloaded to a Passap E6000™ knitting machine. The computer program made extensive design experimentation possible to establish the optimum relationship between fabric width, pattern design and motif placement. It was also possible to experiment with color combinations based on yarn availability. A taupe, two-ply and a fuchsia three-ply wool yarn were selected to create a two color fairisle, doubleknit fabric. Facile™ was used for the quilted collar, sleeve edge bindings, front edge binding/facing, and button ties. The coat was lined with a taupe, acetate twill.

This project demonstrated the expanded design potential and increasing levels of design complexity that are possible using technology that is accessible to even small scale design firms.
"Mystic Earth" expresses a multi-cultural theme through the detail of satin frog closures. The princess seams are extended and lapped to create a three dimensional effect in the front. The skirt is kept as a simple wrap with a curved hem repeating the detail from the jacket. In an earthy quality, the rich brown linen/silk fabric provides a comfortable fit and sophisticated look that takes this suit from day into evening.

"Mosaic Landscape" is a three-piece ensemble that was designed as separates to be interchangeable within a collection. Eastern influence is apparent through the fabrics and proportions. The frog closures provide a textural contrast in satin. The three-dimensional lapped seam detail of the gilet is carried through to the full legged pant. Both the gilet and pant are in a rich brown linen/silk blended fabric. The mosaic print crepe georgette blouse is left to fall freely around the body. The total look is easy and comfortable.
ESSENCE OF SIAM

Donna Parker
Mount Mary College
Milwaukee, WI

In "Essence of Siam," elements of a foreign land are adopted without being too literal. Tasseled trim at the hem calls attention to a sassy swing of the hips. The mandarin collar vest with side slits is paired with slim pants for an elongating silhouette. The frog closures are in satin cording. The fabric mimics a textural silk in polyester and rayon. The woven stripe creates a melange of earth tones; the warp is printed to create the appearance of a plaid. So much fun to wear, it shouldn't be kept for evening only.

NATURALLY TEXAS

Javon Thigpen
Catherine Rutherford-Black
Texas Tech University

The purpose of this project was twofold; first to design a coat and second to complete an ensemble to be worn with the coat. The coat and ensemble designed were western inspired. The rising popularity in western apparel makes this ensemble suitable for youthful women of various ages.

A dress block was converted into a coat block and then pattern manipulation was used to create the duster pattern. A duster was then constructed from naturally colored brown cotton trimmed with navy blue ultra suede. Some construction details include a removable capelet trimmed with eyelets and laced with blue ultra suede, flat felled seams, welt pockets, and a long inverted box pleat at centerback, with gold snaps allowing the pleat to open in a vent-like manner.

Pants and a blouse were constructed to match the duster. Significant details of the blouse include diamond shaped cutouts in the front and back, and eyelets with blue ultra suede matching the duster. Contrasting fabric was incorporated to highlight fashion details. Brown cotton fabric was used to construct the jean styled pants which are highlighted with blue ultra suede laced yokes in front and back.

All garments are constructed of 100% cotton. This ensemble is one of a collection, the other is constructed of indigo denim with brown suede trim.
The purpose of this project was to design and construct an ensemble for the career woman. The ensemble was designed to carry the professional women from office to evening for those special occasions.

The coat was first designed in half-scale and a muslin constructed. After the design was critiqued, alterations were made, a full-scale pattern was developed, and the final coat was constructed. Five thousand and seventy-seven beads, in various colors and shapes, were added to emphasize the collar, French cuffs, and welt pockets by creating a unique surface texture. Ten bound buttonholes highlight the unusual front closure.

To complete the ensemble I designed stove-piped pants, a blouse, and a vest. The blouse features crystal pleating at the collar and sleeves. Fishing line was narrowed at the edges of the collar and cuffs, creating a flared effect. Hand beading and bound buttonholes were incorporated in the vest design to coordinate with the coat and emphasize repetition within the ensemble.

Flat pattern techniques were used to create the coat, pants, and blouse, while draping was used to develop the vest. The coat and vest are constructed of 100% wool, lined with a paisley charmuese polyester/acetate. The pants are constructed of 65% wool/35% polyester suiting. The blouse is 100% cotton gauze.

The pieces in this ensemble were designed to combine with other pieces in my collection. The project was completed on March 1, 1994.
TWO STEPPIN' IN DENIM

Jennifer Tabisz
Catherine Rutherford-Black

Texas Tech University

The purpose of this project was to create a unique ensemble for women who desire western inspired clothing. I was particularly inspired by the recent trend toward long fringed leather jackets and coats.

A vest, skirt, and blouse combine to create this soft western ensemble. First, patterns were developed using drafting and flat pattern manipulation, and muslins constructed. After evaluating the muslins, final patterns were developed and the garments constructed.

Highlighting the blue denim vest is a contrasting black yoke trimmed with leather fringe. Other distinguishing features of the vest include gold conchos and leather laced ties for front closures, as well as front and back inverted pleats also tied with leather lacing. The contrasting yoke trimmed with leather fringe was repeated in the design of the straight fitted skirt. The waistline of the skirt was raised to create a slim line silhouette. Completing the ensemble is a black scooped neck blouse. A center back zipper at the neckline allows for ease of donning and doffing.

The main body of the skirt and vest are constructed of 100% cotton denim. Contrasting yokes of the skirt and vest are 100% cotton velveteen accented with leather fringe. The blouse is also constructed of 100% cotton velveteen.

SIMPLY ELEGANT

Theresa C. Alexander
Catherine Rutherford-Black

After studying Erte and several other designers from the twenties and thirties I was inspired to create a gown in which the hand of the fabric dictates the fall of the design. I had been experimenting with bias designs and wool crepe trying to come up with "that special dress", when I saw the diamond-shaped beaded motif. The image of this dress immediately overwhelmed me.

My goal was to create a simple gown that had very few seams, but flowed with the body like a liquid. I wanted to echo the diagonals and angles of the diamond and avoid any lines that did not follow this pattern. This meant that I had to create a dress with as few vertical or horizontal lines as possible. This eliminated the options of darts, princess seams or other conventional fitting techniques.

As the design evolved and was refined, I figured out the best way to get the skirt to fit the body without darts was to come above the waist and to use true bias. The seam that connected the bodice to the skirt was to follow the lines of the motif and continue around without obstruction. To create fullness in the bust, pleats that repeated the angle of the diamond were used. The straps of the dress were also to fall along the same diagonals. The only vertical lines allowed were the side seams of the skirt and the back seam. These were carefully carried out so not to cancel out the effects of the diagonals. The dress was fully lined to make it opaque. The lining was created on bias so that the dress would still be able to drape over the body as originally intended. The entire garment was draped. The bodice pieces were pleated and sewn to the joined skirt. The straps were sewn up and attached to the dress. The lining was constructed the same way the dress was, and the two were joined at the top. The lining was hand sewn along the zipper down the center back. The hems are free hanging. The dress is one-hundred percent merino wool and the lining is one-hundred percent rayon.
A SUIT FOR ALL OCCASIONS

Chanda Butler
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The chatter at the cocktail party silences. Up onto the deck, climbs a diver emerging from the sea. The sun glints off the dive suit as she unbucks and releases herself from her tanks. With a quick release of a cord, fabric tumbles free as an elegant skirt unfolds. A waiter without even blinking offers the arriving guest a drink.

This is not your average cocktail dress, but an outfit fit for a startling entrance in a James Bond movie. It is in this spirit that I designed “A Suit for all Occasions”, for the 1993 Air France Competition. The theme of this years contest was “cruise/resort” wear. My piece is a scuba suit to be worn during the day. At night it opens up into a moveable evening skirt. It is the only suit you need to bring with you on vacation.

I was inspired by the slickness of a scuba suit. It appears dark and harsh but metamorphoses into a burst of color. The lycra suit fabric is a hologram print, developed in Japan for Speedo. It reflects multiple colors at different angles. The emphasis of the piece, is on the theatrical movement of the skirt. For the skirt, I used a hand-woven Indian madras fabric with hundreds of colors. The skirt is engineered like a roman shade. I spent an afternoon in an interior design store, learning to make roman shades. Six panels make up the skirt. Each panel has loops hand sewn on the back at specific intervals. Strands of silk cording are woven through the loops of the panels. Six miniature pulleys, at the top of the skirt, allow the model to raise and lower the skirt, by pulling the strings at the side.

When the model interacts with the garment, it becomes a dramatic show piece, surprising the audience when it opens, and then when it moves. This transforming garment is designed for the woman of the nineties, who is adventurous, sportsminded and glamorous, and looking for a suit for all occasions.

DRAPE SWING COAT

Diane Harrel
L. Susan Stark
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The problem was to use the draping method to design and construct a classic, multi-functional coat using couture methods. Additional restrictions the designer incorporated were that the coat design must address the unique aesthetics of the fabrication selected.

A swing coat inspired from the 1950s with an 18th century hood was designed for a woman looking for a light-weight outer garment with an updated edge. Another strong inspiration came from the designer Ronaldus Shamask who was a master in incorporating seam construction in designs.

The fashion fabric used was a two faced wool blend (90% wool/10% nylon) twill. Both unique sides of the fabric were successfully incorporated in the design of the garment. This was accomplished through the use of turned seam allowances, mitered corners, and edge stitching. The detail can be seen in the oversized draped hood, pocket/sleeve tabs. The double faced fabric needed research to solve specific construction problems such as creating a hand bound buttonhole with no facing. The Roberta Carr, a couture specialist, construction tech- nique of a Spanish snap bound buttonhole offered a viable solution. For ease in wearing this creation was lined with 100% rayon twill lining giving the classic design a playful edge with color usage.
Designing a garment for someone with a fitting problem led to this non-traditional silk wedding ensemble. Using a photograph which showed some of the bride's preferences, a floor length fitted sheath dress with bias band above the bust, narrow straps, and a kick pleat was designed. A floor length coat featuring a tucked curved-back waistcoat front, a la Louis XVI, and four gored skirt with short train completed the ensemble.

The fabric, an ecru Maharani silk douppione shantung is lined with 100% polyester antistatic lining. A gold chain between two pearl, rhinestone and gold buttons adorns the coat at the front waistline. Ivory silk illusion drapes from a fabric rose along the right side of the coat front. Several rows of tucked silk shantung decorate a purchased felt hat.

Flat pattern and drafting techniques were used to create appropriate pattern pieces. Pattern alterations and special padded pieces were designed to help alleviate fitting problem areas. Serging with gold metallic thread accentuates the edges of the silk illusion drape. Hong Kong seam finish, French tacks, and hand picked zipper finish the ensemble.

My inspiration is fall nature for this design. I combined textures and colors along with other details and styling to create a look of bark and inner tree. Another goal is to create a one of a kind garment that is loose and comfortable for leisure or resort wear.

The ensemble consists of 3 pieces; a vest, palazzo pants, and shirt. The raw silk vest is lined with rayon and held together with handmade twig buttons. It is top-stitched at the shoulder and side seams with leather string. The V-shaped closure and hem are frayed using lapped seams. The 100% cotton shirt has 2 pleats falling from both front and back yokes. The French cuffs and top of placket are closed with leather string and twig buttons. The wool gauze pants fall from the natural waist with out a band. At the ankle, the pants are slit and laced with leather string at the side seams. The silhouette is straight from the shoulders to the floor.

The pattern is drafted using flat pattern techniques. The buttons are sawed, from wooden twigs, into pieces and the leather string is tied around the piece and glued. Small eyelets form the holes through which the leather string is criss-cross laced through the shirt and pants.
Inspiration for this piece came from a lacquer box from the Art Deco period. The two-piece, hand-knit pants and sweater were sketched using ApparelCAD. In this phase experimentation was done to achieve the appropriate scale/location of the fan motif. The initial pattern for both garments was drawn on engineering graph paper. Later a knitting grid was created in AnimatorPro (a companion to AutoCAD). The yarn used in both pieces was a 50% rayon/cotton blend.

Problem Statement: To create a design reminiscent of the bias-cut gowns of the 1930's.

Inspiration: Original gowns from this period provided the inspiration for this modern rendition. Characteristic bias-cut elements such as bodice wraps and cascades were emphasized in this design.

Description: The dress in burgandy linen gauze features a draped bodice wrap which interlocks with a cowl-like collar in the back. The bias-cut skirt forms a cascade at the center back, revealing a linen insert attached to the matching silk crepe de chine slip.

Techniques: The entire design was produced by draping on a personal body form. A pattern was made from the drape and used in developing the slip dress.
DEGAS' DELIGHT

Cecilia O'Sullivan
Sponsor: Nancy O. Bryant
Oregon State University
Corvallis, OR 97331

Problem Statement: To create an evening gown incorporating elements of ballet costuming.

Inspiration: The dress, with its fitted bodice and voluminous tulle underskirt, mirrors that found in the familiar "romantic" tutu of classical ballet.

Description: The dress is constructed of plaid dupioni silk and features a close-fitting bodice, three-quarter length raglan sleeves and full gathered skirt. It is supported by a boned corselette of cotton tulle on which five layers of varying colors of tulle are mounted. Each of the tulle layers is finished with an organza bias binding. Ribbon roses trail from the waist and have been inserted among the tulle layers.

Techniques: The pattern was produced by flat pattern techniques. The strapless corselette was draped on a personal body form and reinforced with spiral steel boning.

GET BACK TO WORK

Kathleen H. Appler
Traci May-Plumlee
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This design was developed for a client reentering the work force. After having and raising a family and being at home with the children for ten years, suddenly, it seems, it was time to "Get Back to Work". However, time has had an impact and the body is just not what it was during the coed days. Equally discouraging was the fact that the career wardrobe was a decade out of date. A new business wardrobe was definitely in order, but starting to build one that met the client's needs and budget constraints was a challenge.

After much musing, the broad appeal of social fixtures such as Sinatra became apparent. Classic material, well executed, does not go out of style, be it New York, New York, or a gray wool suit.

The blouse, skirt and jacket were executed in classic, durable fabrics using draping techniques. The 100% wool jacquard jacket is fully lined. For a subtle but intriguing design effect, the reverse side of the jacquard was used to create the armseye trim and the collar. The 100% wool crepe skirt is also fully lined. The blouse is made of a light weight rayon twill.

The softly pleated surplice neckline of the blouse directs attention to and flatters the face, as does the contrast created by the reverse jacquard on the collar. The peplum effect on the jacket and the darker A-line shape of the skirt camouflage full hips and flatter a trim waist. The look is classic, versatile and flattering to the fuller hipped figure of the client.
CLASSIC RED AND BLACK

M. Jane VanZandt
Catherine Rutherford-Black
Texas Tech University

The purpose of this project was to create a contemporary, business ensemble for the mature woman. Inspired to design a creative project that would combine work done in an advanced weaving class and an advanced apparel design class, I was challenged to design a classic suit.

In the weaving class, a plain-woven textile was designed using colored yarns to create a unique log-cabin pattern. Single red and black yarns of 100% cotton were used in the warp (lengthwise), while single black yarns and tripled red yarns were used in the filling (crosswise). A small, red metallic yarn was also incorporated into the weave to create a soft luster. To focus on the handwoven fabric, minimal pieces and seams were used in the design of the classically-styled jacket. A unique detail is the yoke effect created by the woven structure and interchanging colored yarns. Completing the tailored jacket are the braid trim at garment edges and a full lining.

To complete the ensemble, the skirt was designed and constructed in the design class. A made-to-measure basic block was developed using drafting and flat pattern techniques and was muslin-fitted. The coordinating skirt pattern was developed through flat pattern manipulation of the basic block. The square log-cabin pattern found in the jacket was replicated using double-needle topstitching in the decorative yoke of the skirt. The skirt fabric is 50% polyester/50% rayon, lined with 100% rayon.

In designing for the mature woman, figure type and garment styling were primary considerations. The suit can be easily incorporated into the career woman's wardrobe, creating a variety of ensembles. This ensemble was completed in January, 1994.

WILD AT HEART

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Hyun A, Kim

"Wild at Heart" is a product(work), which is inspired by macular issues of North Korea, and based on the military look. I tried to express strong personality and provocation of woman's beauty by introducing anti-cultural movement to this woman's wear. Also, I partly added Hippie mood.

To try to express woman’s beauty, I used slim & fit silhouette which could emphasize woman's body line. Furthermore, I tried to stress woman's beauty by designing long length so that the body line could look longer. I used Jersey to create tight appearance. Using of Jersey would increase masculine image, which appeared in the military pattern, with feminine mood.

Moreover, I used khaki and burgundy color with coordinating contrast in order to emphasize the theme with strong image. The color which was revealed in the military pattern is khaki, black etc. Practicality was the first consideration in choosing the materials. The materials were cotton 100%, and the Jersey was cotton span.

To take into account of practical and functional use as sportswear, I used blue Jean pattern in the top of the skirt and used overlook(hemline of Jersey), fringe etc. in detail in Hippie mood.

In the process, the garment washing treatment was used to bring out the natural and worn out effect and to replace defects of using different materials. Accessories were belt, sunglasses and military shoes etc. This clothes would fit to daring and modern women and expect to be used as a sort of sportswear.
NAUTILUS 2,000

Carolyn Schactler, Central Washington
University Ellensburg, Washington

This design was so named because the spiral design is similar to that of the Nautilus shell, and was designed for wear in the 21st century. The sheath gown may be worn alone as an elegant dinner or formal gown, or with the addition of the spiral skirt, as a party dress or costume ball gown.

21 feet of one-quarter inch, clear plastic tubing, with an insert of steel wire was hand sewn into the spiral skirt hem.

The basic sheath is made of "Chinchilla Cloth," a hammered satin. The detachable, spiral skirt is made of iridescent polyester organza.

CLASSIC ELLINGTON, BLACK,
BROWN AND BEIGE

Carolyn Schactler, Central Washington
University, Ellensburg, Washington

This suit is a design in the style of the 1940s, named after a favorite Duke Ellington tune. In response to a request for a classic tailored shorts suit that could be worn year around in the moderate climate of the Pacific Northwest, this suit was created. It is designed to be worn by the new-age, sophisticated, young career woman.

The fabric is a light weight, twill-weave wool in a trio of colors, black, taupe-brown, and cream. Bicolored, diamond shaped insets offer contrasting points of interest on the left shoulder, at the end of the single "pocket in a seam," as a buttonhole, on each sleeve vent, and at the left side of the shorts hem.
DIAGONAL CUT

M. Jo Kallal, University of Delaware
Newark, DE 19716

Problem Statement: The design problem was to utilize bias grainlines in fabrics not traditionally used on the diagonal. Initial inspiration was derived from two novelty wool crepe fabrics. Design execution techniques from earlier 20th century decades were researched to identify methods that would enhance each fabric's weave and hand. Design objectives included creating a minimalist image (clean lines, monochromatic color scheme, natural body silhouette, minimal understructure); integrating texture and garment structure with asymmetrical balance; and producing an ensemble for a contemporary designer market.

Description: The multi-seamed, bias-cut dress and bolero-like jacket ensemble were fabricated in cream-flecked warm charcoal grey tissue wool gauze and double-sided novelty wool crepe, respectively. Both feature gusseted kimono sleeves. The uneven, dropped waistline of the dress parallels the diagonals created by the true-bias torso panels. The rayon-lined jacket utilizes both fabric faces to provide contrast and create a focal point for the ensemble. Its diagonal silhouette lines mimic those of the dress. The light-colored right body/sleeve sections lap over the darker left section. A hidden closure is located on the left.

Techniques: Several style variations were sketched and edited. Basic bias kimono patterns were drafted from torso blocks and refined. The one-seam skirt was draped directly onto the dropped waistline of the final dress torso. Dressmaker tailoring techniques, developed through experimentation, were incorporated.

DANCING FEET FOR A COLLEGE MASCOT

Susan DeGeus, Jennifer Barrett, and
Dawn Newhouse, student designers
Dr. Lucinda Schoenberger, faculty sponsor
TC 468 Clothing for Special Needs, class project
Iowa State University, Ames, Iowa 50011-1120

Our college mascot needed lighter and more agile feet to be more animated during public appearances. The mascot squad required the following: a) the person in the mascot costume must be able to wear their own shoes inside the "foot", b) the new foot much match the current head and body, c) the new foot must be easy to clean, d) the foot must be lightweight, e) the foot must cost less than $200, and f) the foot must have a lifespan of 1.5 seasons or 180 hours.

Problems with the old design: a) athletic shoes could not be worn inside the foot which resulted in foot and ankle injuries during appearances, b) the feet were too heavy, c) the feet were hard to clean, and d) the workboot laced uppers inside the foot did not fit all mascots.

Design inspirations included interviews with mascots and shoe repair technicians, observations of the activity, survey of fastening systems, properties of available textiles, search of footwear and cobbler trade publications.

Although many textiles were tested for cleanability and durability the final product was produced from Ultrasuede® that we pigment dyed to the desired shade, the sole is PVC crepe, the straps are 100% nylon webbing, hook and loop tape holds the upper to the sole and secures the straps. The pattern block was made from a combination of drafting and draping. A bandsaw was used to cut the sole and assembly processes included stitching, gluing, and bonding.
CONVERTIBLE SQUARE DANCE/COCKTAIL DRESS

JoAnne Collier Shaw
College of Human Resources
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A square dance dress must allow ease for the vigorous movements required by the dance and be designed for maximum appeal when in motion during the twirling and swinging characteristic of modern Western Square Dancing. In addition, there is a required sophistication appropriate to the maturity of adult women. For other occasions the intricate bodice combines with a wrap skirt to create an entirely different look in the form of an elegant cocktail dress.

In the square dance mode, the peplum and skirt flare as the body turns. The ease in the waistline and the large armholes allow for freedom of movement.

As a cocktail dress, the wrap skirt has soft lines and bows which together with the shirring of the bodice express an appealing, romantic feeling. The skirt is reversible, providing still another ensemble.

The fabric is polyester with Jacquard woven-in stripes and a rotary screen-printed motif. The fabric was shirred and basted in place before the pattern pieces were cut out. All shirred pieces were underlined and the bodice lined. The square dance skirt is gored and gathered to provide the all-important flare when twirling. The reversible cocktail skirt is made of the printed fabric on one side and a solid-colored fabric on the other. The dress has three looks.
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