Proceedings

1998

55th Year

International Textile and Apparel Association, Inc.
ITAA PROCEEDINGS

Proceedings of the Annual Meeting
of the
International Textile and Apparel Association, Inc.

November 18-21, 1998
Dallas, Texas

Nancy J. Owens, editor

International Textile and Apparel Association, Inc.
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PRESIDENTIAL ADDRESS

CROSSING BOUNDARIES:
FROM WHERE WE ARE
TO WHERE WE WANT TO BE

Sharron J. Lennon
The Ohio State University, Columbus, OH

A boundary is anything, real or understood, marking a limit, bound, or border. Sometimes we seek boundaries and sometimes they are forced upon us. Regardless of where they come from, boundaries can be positive in that by limiting possibilities and distractions, they allow us to focus on important issues. Boundaries can be negative when they are stifling, give us a false sense of security, or impinge on creativity. As I reflect on boundaries, I see that there are several types and that they have relevance for us on several levels: the personal, the institutional, and the professional (ITAA) level.

First, at the personal level, reflect for a moment on your formative years. Do you remember being told not to cross the street, not to go in the deep water, or not to talk to strangers? These are boundaries which were established for our protection although they also limited our freedom. When you learned to walk, learned to ride a bike, had your first date, drove a car for the first time, or taught your first class, you crossed boundaries. Crossing these boundaries coincides with increased freedom and responsibility. Rites of passage also mark boundary crossings such as baptism, first communion, bar mitzvah, graduation, and marriage. These rites make crossing the boundaries more meaningful, more personal, and more vivid. Ideally, boundary crossings are associated with a healthy amount of caution, increased responsibility, increased freedom, exhilaration, and, often, personal achievement. However, sometimes the exhilaration of boundary crossings such as learning to fly, for example, is tempered by the concurrent increase in responsibility.

At the institutional level, we have many boundaries, such as college or school boundaries, departmental boundaries, discipline boundaries, subject-matter boundaries, and boundaries of program areas. These boundaries are generally related to disciplinary orientation. Many, if not all, of these boundaries are artificial, fairly easily changed, and are defined for organizational purposes. These boundaries are ones that most of us have little control over, yet we often work to preserve them even as new boundaries are being forced upon us. Not only is this stressful; it is sometimes counterproductive. In some cases we might be better served to think creatively about how we can work within the new boundary rather than attempting to resist it. Rewriting disciplinary and subject-matter boundaries is productive when it opens up new ways to collaborate in research, such as the application of microbiology techniques to cardiac medicine; or when it creates possibilities for multi-disciplinary research projects; or when it creates opportunities for team teaching. By resisting changing boundaries, we can lose out on these rich opportunities for growth.

We also have boundaries of rank at the institutional level; of tenured and untenured; of full-time and part-time; and of administrators, faculty, and professional staff. These boundaries are generally related to education, expertise, and personal achievement. While individuals seek to and do cross these boundaries, the boundaries themselves are fairly stable as compared to discipline boundaries. Yet what we do within those boundaries, the role of faculty, for example, has changed. Responsibilities for distance education, community engagement, and development of monies to support department infrastructure have become part of the faculty role. Perceptual boundaries also exist at the institutional level. Think about how difficult it is to change administrators' or other disciplines' perceptions of textiles and clothing or of Human Ecology.

Another boundary we have at the institutional level is the tension between teaching and research. We work in higher education, not higher research. Yet, regardless of the rhetoric, we often see that teaching is not as well rewarded as research. Even in ITAA we have more research presentations than innovative teaching presentations and more pre- and post-conferences which focus on research-related issues than on teaching-related issues. I personally feel a need to have intelligent conversations with peers who teach the same classes as I do, thoughtful discussions about teaching strategies and techniques. Perhaps it is time for us to plan for a major post-conference session on teaching-related issues. The boundary between research and teaching clearly exists in many schools around the country and affects commitment to teaching, as well as morale. And even in ITAA, one reason cited for not renewing ITAA membership is the research focus of the organization.
We also have boundaries at the professional level. As we near the end of the millennium, it is a good time to reflect on ITAA boundaries. How do they limit the potential of ITAA? And what can we do about it? First of all, many young members, international members, minority members, and even some more seasoned members have felt at one time or another that ITAA meetings are not warm and welcoming. This feeling or perception inhibits otherwise energetic members with valuable contributions to make from participation in the organization. It may also marginalize our members. Do we want members to think that one must be middle-aged with several years tenure in ITAA, or must be from the US, or must be a research "star," or must be from mainstream culture, or female to participate and feel welcome at ITAA meetings? I hope not! We need everyone's contributions and a diverse membership in order to be a growing and viable organization. This may be an invisible boundary, but it surely limits our effectiveness as an organization.

One way to address the invisible boundary is through mentoring. The mentoring of new professionals by more experienced professionals is a traditional means of helping individuals cross career boundaries. Mentors can provide exposure, visibility, coaching, protection, and sponsorship (Bartlett & Ziegert, 1998). Mentors can also provide psychological help by serving as a role model, being a friend, offering advice, and offering acceptance. In ITAA, mentors could also provide specific information regarding both formal and informal organizational structures. In addition, they could provide access to those formal and informal ITAA networks.

According to scholars (Hall & Sandler, 1983) academics function through colleague systems. The way we assess professional behavior and the criteria used to evaluate teaching, research, and publications have often been based on unwritten rules (really academic cultural norms) passed on by generations of scholars. These standards are often communicated informally from openers to another. What this suggests is that it is not enough for a new employee to be bright and talented; one must also be introduced to and socialized into these informal networks. At our institutions we can mentor grad students and new faculty, but as an organization we must make a commitment to mentoring as an investment in ITAA's future.

Researchers have found that mentored individuals receive higher salaries, bonuses, and total compensation; experience more job satisfaction; have more career opportunities; and have more recognitions than non-mentored individuals in business settings (Burke, 1984; Fagenson, 1989; Kram, 1983; Roche, 1979). Fewer empirical studies have focused on mentoring in academia. However, one researcher (Queralt, 1982) found that, for academics, those who had been mentored published more, had a higher level of satisfaction, a higher level of career development, received more competitive grants, and were more likely to serve as leaders than those who had not been mentored. Johnson and Yust studied mentoring of textiles and clothing faculty (1996); both mentors and mentees in their study reported that mentoring positively affected their career satisfaction. This underscores the importance of mentoring.

Another type of mentoring is team mentoring, which involves teams of scholars with similar interests (Bartlett & Ziegert, 1998). The team might be brought together under the guidance of a senior scholar. However, instead of the senior scholar being responsible for support and advancement, the entire team takes on that responsibility. The senior scholar provides expertise and acts as a resource for the team. Team members commit to work on everyone's projects, thus providing support for the team. In this way the team is able to serve most of the functions of the traditional mentor. One advantage to team mentoring is that the research literature suggests that people learn best from their peers; another advantage to team mentoring is that the senior scholar does not have to make such a heavy commitment as in traditional one-on-one mentoring. Since mentoring can assist our organization in valuing all of our members and providing opportunities for their personal growth, as ITAA President, one of the efforts I am working on is the Mentoring Committee. I am hopeful that through the work of the committee we can begin to cross this invisible boundary. We are going to need everyone's buy-in and help to make it work. This boundary is keeping us from where we want to be and it is one that we clearly have control over. So a challenge before us is to reflect and think about what can be done to help ITAA cross this invisible boundary. While it is true that I am suggesting that we each take on yet another obligation, it is also a wonderful opportunity for personal growth.

Second, I want to tell you about a boundary that ITAA has crossed over. Until recently ITAA lacked a comprehensive strategic
plan. Since I have served on Council (1993), all of the presidents have been concerned with developing a strategic plan and futuring. In the early 80s we held Futuring meetings in the regions and some of the early issues of CTRJ dealt with the future of the organization. There is history documenting concern with (a) our future as an organization, (b) our future as a profession, and (c) the development of a strategic plan. We have certainly worked on strategic plans in the past. As a consequence of the Visioning Meeting in Ft. Collins in June, we now have the rudiments of that strategic plan. This is a major step forward and takes us across another boundary between where we are and where we want to be. Our strategic plan has been developed to work through the ITAA Committee structure. The VPs have worked with their committee chairs to consider how to use the output of the Visioning Meeting to prioritize their programs of work. So having the strategic plan is a major boundary for us to have bridged. The next boundary is member participation in the committee structure. If you think about it, no one is good at everything but everyone is good at something; we need everyone’s ideas to make the strategic plan work. Thus, a second challenge before us is to find out about the strategic plan and support it. But if you have other better ideas, then I challenge you to let us know that, too. Find out what the committees are doing. How are they implementing the strategic plan? This does not mean you must commit to serving on a committee but that you will observe and find out what is going on in your organization.

Finally I would like to share a concern with you related to subject-matter boundaries. I am concerned that other departments, disciplines, and subject-matter areas do not know about us and this affects us as individuals and as a discipline. Because clothing is visible and reflects identity, people are interested in their own appearances and the appearances of others. Due to that interest, they want to learn and write about it. Since we are not widely known, our subject matter is often taught and written about by people outside textiles and apparel. Think about books like The Face of Fashion by Craik or Dress Codes by Rubinstein. Even on my own campus, body image and the beauty myth are being taught in women’s studies. I am concerned that our subject matter may be co-opted, especially when organizations like MUCIA, a consortium of midwestern universities, is packaging courses for distance education for sale to Eastern Europe and Asia. This does not necessarily mean that they will package our courses, but it does suggest to me that (a) we absolutely must proceed with a strong marketing plan for ITAA and that (b) we must package our programs for distance education before someone else does it for us. In addition, because clothing is an ego-involving product, many heated public debates focus on issues related to clothing. As a result, judicial decisions exist on the books which address what can and cannot be worn and in what context. I am also concerned that laws are written and judicial decisions that relate to dress are made by uninformed individuals.

ITAA members can make a difference by making the discipline visible and, at the same time, by affecting public policy regarding the use of clothing as evidence of consent in rape cases or as evidence of "welcomeness" in sexual harassment cases. With the right kind of preparation we can make a difference in the "uniforms in public schools debate." We can make a difference in influencing public policy as it relates to socially responsible marketing and body image or as it relates to social responsibility and sweatshops. Regardless of the positions we take as individuals, as long as those positions are responsible and based on sound empirical foundation, being visible as individuals can showcase the textiles and apparel discipline.

I hope I have given you some food for thought this morning and I want to leave you with a final challenge: What will you do as an individual to contribute to the marketing of ITAA and the field of textiles and apparel? As we consider these challenges, think about the boundaries you are crossing and reflect on the following quote: "The real voyage of discovery consists not in seeking new landscapes, but in having new eyes" (Marcel Proust).


RESEARCH IN HISTORY:
A HUMANITIES APPROACH TO INQUIRY

Distinguished Scholar Lecture
Jane Farrell-Beck
Iowa State University, Ames IA 50011

Let me begin by thanking ITAA for the honor of being asked to share my research as a historian of costume. This comes close to being a Bully Pulpit, as Teddy Roosevelt described the Presidency. Happily, no administrative duties come with this job!

Preparation for this presentation has involved introspection, reading, and jotting down ideas, sometimes with that wonderful 19th-century word processor—a pencil. The result is a three-part presentation: (1) analysis of what history research is and is not; (2) a flashback to explain how I came to be a costume historian; and (3) a short harangue on what we costume or textile historians must do to achieve our full potential and reach other fields of history with our message.

The purpose of doing history is to contribute to knowledge, not to foster economic development, not to meet the university's current five-year plan, and not to accede to the latest bee in the provost's bonnet. It is more like pure natural science than like applied sciences, natural or social. This is both history's joy and its handicap because dollars for pure scholarship are few, compared to those for activities with a pragmatic outcome. Company histories that are "funded" by the subject rarely receive—or deserve—prestige because the writer has too often flattered the sponsor instead of telling a balanced story.

In the view of many of its practitioners, history is a humanity, namely, one of the branches of learning concerned with human thought and relations. Art, languages, literature, philosophy, and history belong to this cluster of fields. This does not imply that humanities have cornered the market on humaneness, which may indeed motivate and underlie other scholarly disciplines. The methods of humanities scholarship differ in some definable ways from those equally valid methods of the social sciences. First, historians center their research on one or more carefully stated questions, which parallel hypotheses but are usually more open-ended and are not grounded in logical positivism.

History monographs and articles present an "argument" or thesis, consisting of
proposed answers to the questions the writer has asked. True historians do not pursue mere chronology of dates-and-events. They do attempt to explain some aspect of past human experience. A humorist has said that "Historians, not history itself, organize the past for the edification of the present." A more serious proverb states, "Life is lived forward, but can only be understood backward."

In order to answer their questions, historians systematically locate and use sources that are applicable to the topic under study. For a project with a regional scope, regional sources are a good foundation, although a reputable journal will demand comparison of regional developments to national ones. For example, a local dressmaker would need to be compared to trends for dressmakers elsewhere in the U.S. A nation-wide topic must be based on sources that transcend one region. The most respected history projects use large quantities of information from varied sources; the goal is to come as near as humanly possible to a population of data. This contrasts with social science research, in which sampling is a respected and often necessary technique and for which carefully controlled, even standardized, units of data are gathered and analyzed.

Historians' sources ARE their methods. Only when historiography, the process of doing history, is the subject of an article, will method be discussed. Otherwise, readers are expected to infer methods from the sources listed in notes or bibliographies.

Saying "source" in history evokes the word "primary" because historians insist upon use of primary sources. These are materials created during the time being studied, in the appropriate place, and by someone who knew the situation first-hand. Primary sources also have a pecking order. Manuscripts, or unpublished sources, found in archives, command the most respect. Diaries, letters, and minutes of meetings are examples of this type. Published sources of the era are also legitimate; these include books, magazines, newspapers, and printed reports. Some more venturesome historians use visual materials (Roeder, G.H. Jr. (1998, March) Filling in the picture: Visual culture. Reviews in American History.) Secondary sources, created after the era of study or in a distant place or by a non-participant, can be useful for filling in background but cannot provide answers to the central questions. Secondary works function more like the review of literature in other scholarly reports. Because the authorship of each primary source matters so much, historians must discuss these authors. Readers want complete names, even middle names. Pedigree is also required. Writers must ascertain who this person was, and why she or he was authoritative; also relevant are her or his job, pet causes, and education or affiliations. For example, Dr. Frances Sage Bradley was Director of Child Hygiene in rural Arkansas, whereas Louise Zabriskie was the Nurse-Director of the Maternity Center Association in New York City. These radically different locations help to explain why, in the mid-1920s, Bradley condemned brassieres while Zabriskie encouraged their use. Zabriskie was aware of new, healthful styles whereas Bradley had seen only the older, binding types.

In order to accommodate vital background details, historians use endnotes or footnotes, rather than parenthetical citations, which seriously impede the flow of discussion. Historical format may be used even when the writer has a wealth of statistical data. In writing Catching Babies, a monograph on Wisconsin midwives, Charlotte Borst used essay style, with hundreds of endnotes and plenty of anecdotal evidence to bring to life the reality behind her extensive tables of numbers.

Here I must add a word about words. Historians are avid wordsmiths. Rarely do they express their conclusions in numbers, as do natural scientists, or in diagrams, the models popular with some social scientists. Particularism is inherent in history writing; the work must communicate vivid details of the specific time, place, events, and moods. Totally abstract statements that work splendidly in other disciplines often fail in history. Some writers who attempt grand generalizations across hundreds of years are found to have garbled the underlying facts, which undermines confidence in the resulting "theory." I do not imply that broad concepts are missing from history, just that they do not embrace huge swathes of time and place.

As you might guess, history scholarship is tedious although sometimes serendipity or Providence lends a hand. Patience is needed to sustain a researcher through hours of fruitless digging for data. The detective work involved bears no resemblance to the speedy crime-solving of the Egyptian Lord Meren, Brother Cadfael, 15th-century Owen Archer and Lucie Wilton, or English archaeologist Amelia Peabody. A paper publishable in a history journal cannot be compiled in a matter of
weeks or months. The computer is not popping out the data, and there is no standard format for writing up the results. History colleagues say that three to five years is normal gestation for a paper, which easily runs 25-35 closely printed pages with endnotes for each sentence. Even keeping two projects going simultaneously cannot result in several papers per year.

I arrived at doing history research by a circuitous path, not a straight-line swoop from kindergarten to professoriate. Being a child prone to illness, I became a bookworm, a habit that persisted through high school. In Georgian Court College, I switched from English to Food and Nutrition in sophomore year. I finally learned sewing techniques during student teaching and switched allegiance to Textiles and Clothing. As a senior, I also had mind-expanding experience in Sr. Christina's art principles course and began to read avidly about art history. After four years of high school teaching, I enrolled in an M.S. at Drexel University, with a Design emphasis.

At Drexel, Mary Brenneman Carter introduced me to the History of Costume. I had found my true calling! College teaching at Longwood College in Virginia whetted my appetite for further study, first at Penn State and then at Ohio State. My dissertation took me to the Netherlands to study Dutch silks. That path of research had drawbacks that induced me to redirect my efforts to U.S. costume. My overall approach remained art-historical, comparing the styles in U.S. apparel to those popular in Europe. Then I examined sewing techniques, to see if those were diagnostic of date in historic garments. This study led to investigating remodeling of clothing, which was common among all but the richest families. Industrial sewing techniques were another branch of study, which introduced me to patents—a rich source on costume.

We all have "eureka moments." One of mine came as I was reading Beverly Gordon's paper on Civil War textiles and apparel. I read a sentence about open sleeves on soldiers with arm wounds and suddenly realized how little was known about "special needs" clothing of the past. An attempt to start a cross-university project on clothing and health foundered. None of the costume scholars I approached felt free to research more than one topic for fear of jeopardizing her tenure. Laurann Figg, a new graduate student in TC, seized the idea, did a fascinating thesis on Civil War amputees, and bravely decided to send a manuscript to a history journal. The first journal rejected the paper as outside of their range of topics. The second one urged us to develop the surgical part, and resubmit the paper. Laurann found the gory details distasteful, so I suppressed my squeamishness and wrote the section on methods of amputation. To my surprise, the medico-surgical procedures were quite tolerable to read about, and I was fascinated to discover what physicians wrote about clothing! For instance, John Julian Chisholm, an eminent Confederate surgeon, devoted several pages of his battlefield manual to describing the types of clothing needed by the troops. I was hooked and started my own health project, studying how corsets fitted into the treatment for scoliosis. This led directly to the inquiry about brassieres supporting the back—work that may blossom into a book. Throughout this time, graduate students have been attracted to topics in which health and clothes intersected: Laura Kidd, Colleen Gau, Vicki Dirksen, and Sue Herrold have been or are pursuing topics that extend literally from head to toe.

Medical subjects related to clothing have opened doors, not only to the Journal of the History of Medicine and Allied Sciences but also to Caduceus, a medical humanities journal, and The International Journal of Dermatology. What fun to interact with a whole new group of scholars! Small grants have been forthcoming from medical and nursing libraries. Colleen Gau and I now have a book proposal under review—about brassieres in the United States from 1860s to 1960s.

After 20 years of searching, I have found a vein of research that shows no sign of petering out. There is breadth—subjects galore related to appearance and health. Depth is also possible because I had a college course in biology that made the medical concepts understandable. I did not have the engineering background to continue to delve into complex machinery, requisite for further investigation of industrial sewing technology. I've gotten help along the way from colleagues in history, especially Alan Marcus and Amy Bix. I've discovered a network of other historians out there at the end of the e-mail "wire." From these "real" historians, including helpful reviewers for history journals, I have learned how to fashion an "argument" and how to think beyond chronology and documentation of artifacts.

Part of the joy of research is the writing, for which I must thank one more mentor, Geitel Winakor. She insisted that I learn to
compose at the keyboard (first an electric typewriter, then a computer). She also showed me how to escape from the freeze-dried prose that was fashionable in academe 20 years ago. She urged me to use a more conversational style, from which I have never looked back. The journey has been fun, and Heaven send there is still more ahead.

Now I will share my perception on "What it will take for us to do the best costume or textile history in our power." The goal, if excellence really needs a goal beyond self-respect, is to gain esteem from and usefulness to mainstream historians. First, we need a strong sense of ethic—based in our individual religious or philosophical principles. Ethical behavior begins with fidelity to the facts. It precludes sweeping unwelcome findings under the rug. For example, although I am feminist enough to wish it were otherwise, the first U.S. bra patent was awarded in 1863 to a man, Luman Chapman. Objectivity is requisite in history, as in other research. Setting out to prove a comfortable thesis prevents any scholar from really seeing what the data are saying.

Equally important, as sound historians we must acknowledge intellectual debts. Crediting the work of others enhances a scholar's stature, rather than diminishing it. Third, we have an obligation to treat the people we study with scrupulous fairness. This excludes stereotyping of behaviors or relationships in any category of people. We need the intellectual courage each to think for herself or himself and not be stampeded into accepting socially or politically approved orthodoxies.

An even more severe temptation that we must resist is passing judgment according to our mores and values. Think about the behaviors we condone and even take for granted, that may someday be severely censured by our descendants, as surely as they would have been denounced by our ancestors. Besides, if we are busy imposing our values, we miss the whole point—the otherness of the past. We cannot experience an earlier era, but we can try to see a period through the eyes of those who lived it. (H. Cravens, A. I. Marcus, and D. M. Katzman. (1996). Technical Knowledge in American Culture. Tuscaloosa, AL: University of Alabama, p. 17).

As costume or textiles historians we must also be thorough in our search for sources. Too often in my career I have reviewed manuscripts based on a smattering of sources, too few to support the grand generalizations that the author/s derive from them. For instance, seven primary books, written by authors on two continents and spread over most of the nineteenth century, do not justify any kind of conclusion. Furthermore, we need to balance the use of material objects with documentary sources. This combination can yield important insights. Material objects, discussed for their own sakes, do not generate work respected by historians, who demand written evidence of the caliber I discussed earlier. Conversely, documents used without a reality check in costumes or textiles can lead to avoidable errors.

Historians insist that findings of any type be placed in context. If I had examined patents, advertisements, and extant brassieres, without also trying to learn the beliefs and methods of obstetrics, gynecology, and nursing in the United States, I could not have understood the uses and meanings of the first or most innovative brassieres. To publish in mainstream, national history journals, we must embed our clothing-textiles-, or appearance-related findings in the life of the times and in broad ideas or trends. In the Introduction to History of Costume, Geitel Winakor wrote, "History of costume is part of human history" (1996, p. 6). If we focus only on the clothing, we will "turn off" potential readers from other disciplines.

In order to have depth, we must limit the breadth of our studies. Rarely should one paper encompass events spread over several hundred years. More often, a proper historical topic centers on a few years or a few decades. Reviewers for JHMAS persuaded Laura Kidd and me to scale back the sanitary protection paper from a 100-year a 60-year scope to provide depth and coherence of ideas. Some subjects should be confined to one geographical area so that the writer may become fully conversant with the material and not draw sweeping conclusions. Depth also allows us to scrutinize sources and learn why the author of the source thought as he or she did.

Depth may also mean taking time to learn the technical concepts of a particular field—in my case, medicine. Ideas transfer from one medium to another—from medical article to patent text. Sound historians often have labored to learn chemistry, mechanics, or physiology to make sense of their findings. Technical books and journals also offer wonderful tidbits that help to complete the historical picture. A rubber trades journal profiled consumer goods, such as corsets and bras intended to induce weight loss. Medical jour-
nals show that some physicians were prescribing brassieres for their patients in the late 1920s and 1930s. Those who write about a subject without doing their homework risk embarrassing bloopers. Marilyn Yalom writing on the breast and Joan Jacobs-Brumberg on teenagers' self-images both repeated the baseless myth that Caresse Crosby invented the brassiere in 1914 because they did not probe deeply.

Lively style is important to being a good writer of history. Too much glitz is suspect, but dullness puts readers to sleep. Being serious about a topic does not mean that you have to be solemn. A well placed witticism can help to fix your theme in the readers' minds. As I begin an article about nurses and brassieres, I'm determined to find an opportunity to quote Mary Ann M'Cready, a marginally educated 1900s nursing-student, whose colorful class notes included amusing asides: "Canvas shoes is a nice thing for a nurse," she said, in discussing a nurse's need for exercise. In her obstetrics notes she opined that hot lard was ideal for lubricating the breasts of nursing women!

And on that note, let me end, wishing you Happy History-Making!

CROSSING BOUNDARIES AS A TEXTILE SCIENTIST

Prentice Hall Distinguished Lecture
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As a textile scientist, I have dealt with the concept of crossing boundaries in several ways. This paper will address three aspects of boundary crossing that have been important in my career: crossing the textile boundary, crossing teaching/learning boundaries, and crossing disciplinary boundaries.

Crossing the Textile Boundary

In the same way that skin provides a boundary between our bodies and the environment, various forms of textile products serve as boundaries to modify our interaction with different environments. For example, consider the modifying effects of textile products on a Florida beach with strong gulf winds and an intense sun, or on a cold, rainy, slick-surface day in January in south Louisiana, or a crisp, sunny spring day in a Virginia mountain lake environment. And what about in a hazardous, life-threatening environment that could exist anywhere?

Some textile products serve to limit our interaction with certain environmental aspects, but they also may define our role or enhance our functionality. Thus, the textile boundary may limit, define, or enhance our interactions in different ways. Textiles may serve as sociological, cultural, or psychological boundaries. My research, however, like that of most textile scientists, focuses on the physical aspects of the textile boundary. We consider the role of textiles in limiting an individual's exposure to sound, light or radiation, heat, impact, liquids, wind, or hazardous substances.

The nature of physical boundaries is three fold. Some textile boundaries serve as barriers to deflect or resist substances or energy forms that challenge their surfaces. On the other hand, some textile boundaries serve as filters, allowing some substances to pass through while rejecting others, or slowing down their movement, or reducing the amount of flow of the substance through the textile. Still other textile boundaries have been engineered to enhance flow or change the nature of what is transmitted or to contribute a needed substance. Such is the case with medical patches or heated socks.
My research has focused on the effectiveness of textiles in serving as barriers to pesticide exposure for agricultural workers. I began this research at Louisiana State University. Soybeans and cotton were major crops in the state and insects were abundant. Crop dusting was the primary form of pesticide application and large quantities were frequently applied.

While much of the country was concerned with the exposure of applicators, my work developed around a concern for field workers and crop managers. With the assistance of faculty in the entomology department, my graduate students and I conducted studies to quantify the exposure of field workers to foliar pesticide residue transfer, to measure attitudes of farmers and other professionalfarm workers regarding pesticide exposure, and to determine clothing practices of those with high risk of exposure. We then began to look at the fabrics/garments proposed as solutions, in other words, barrier fabrics.

Not surprisingly, there were some problems. When you create an effective barrier to external substances, you also create a barrier that restricts the body's ability to release heat and evaporate skin moisture. Through my involvement in southern Regional Research Projects, I was able to conduct research on experimental non-woven fabrics designed with the intent of improving comfort while maintaining required protection.

Microporous films were incorporated in some of the experimental fabrics. These films work on the basis of allowing moisture vapor from the body to escape while preventing liquids from passing through to the skin. In other words, they work as a filter allowing the barrier fabric to breathe. Some fabrics we tested also incorporated layers of non-woven cotton for essentially the same purpose.

Another difficulty with many nonwoven barrier fabrics is that abrasion can compromise their protective qualities. Abrasion challenges are quite significant when protective garments are worn into crop fields. So the challenge remains to produce a textile boundary that provides protection and comfort both before and after the abrasion encountered in wear. This research is continuing.

Crossing Teaching Boundaries

So how do these concepts apply to crossing boundaries in teaching? Clearly there are boundaries in the teaching/learning process that the academy has begun addressing in recent years. Distance, time and learning style are three important boundaries.

Distance learning has become a part of the routine jargon of universities, each trying to race the other to get on-line with course and degrees, so that we may reach the student whose place boundaries prevent them from participating in traditional classrooms. Even on-campus students are taking advantage of resources provided on the Internet as a means of conserving time. Time is a boundary with limiting capacity, both for the teacher and the student.

In recent years, we have become aware of the boundaries of our teaching methods and the limits on their ability to reach students with different learning styles and from diverse backgrounds. In 1994, I participated in a university technology initiative at Virginia Tech that spawned my interest in the development of instructional technology using computers. Universities also employ videotapes and satellite transmissions, but these have not changed the face of education as computers and the Internet have. Most major universities are taking a very aggressive approach to technology development in classrooms. Web-based and web-assisted courses are becoming more and more common. Students have free e-mail accounts and our libraries, which have repeatedly been forced to cut journal subscriptions, are adding electronic search engines as a frenetic pace.

In the Department of Textiles and Consumer Sciences at FSU, we have also taken an aggressive approach to technology development for our students. As we moved back into a renovated Sandels building this summer, we were able to put in place leading-edge technology laboratories with the assistance of our industry partners and university matching funds. Our Lectra CAD Lab with its 10 workstations includes over two million dollars worth of hardware and software enabling students to develop and illustrate designs, produce specifications and flats, generate markers and calculate fabric usage, and pull it all together into a report to send the buyer by internet.

We also dedicated this fall the Burdines Merchandising Technology Laboratory supported by an endowment from Burdines and state matching funds. This laboratory currently contains seven computers and several thousands of dollars worth of inventory and fixtures provided as in-kind donations from Burdines, a major department store in Florida.
that is now part of the Federated group. In this lab, students will use software developed by our faculty to plan store layout and merchandise assortments and then will evaluate profit based on the plans. Retail buying software and inventory control software will also be used in the lab.

In the Textiles area we have been successful in acquiring lab equipment with computer data recording and analysis capabilities to support our emphasis in product performance analysis. Two grants received by textiles faculty are supporting the development of interactive learning modules for basic textiles information. Although we are also developing a web course, these grant projects have employed course development software to maximize interactive capabilities, and the outcomes of these projects will be CD-ROMs. Why did we take this approach? Most of the push to develop instructional technology has focused on the boundaries of time and place, with little attention given to the boundaries created by learning styles or other forms of diversity in our students. In our hurry to win the race of distant education, we have taken existing course structures and placed them in a computer format, perhaps enhancing them with computer graphics and hyperlinks to other web sites, which some computers may not have the capacity to handle. Courseware packages allow us to develop very non-linear, interactive approaches using a variety of techniques which can address different learning styles.

Fleming and Mills describe four styles of learning: digital, auditory, visual, and kinesthetic. The digital learner is most faculty member's dream. They excel in reading and writing, like outlines and linear organization, and prefer logical and deductive reasoning. The lecture format, whether live or on video or on computer, works fine for them—although research indicates that in 8 weeks they will have forgotten 75% of what they learned in a live lecture. Auditory learners perform best when they can hear information, especially when they hear their own voice. Visual learners learn best when provided with visual representations of information—graphs, charts, maps, diagrams, photos. Kinesthetic learners use active involvement as their primary or preferred learning mode.

So which of these methods do our computer instructional modes address? Generally, the outline is there and there is a fair amount of reading to be done, so digital learners may fare just as well as in the traditional classroom. Visual learners have probably benefited the most from the enhanced graphics and other visuals that can be produced and updated easily. Auditory learners may be okay if we incorporate a sound track with a professor's voice or perhaps if we encourage them to read the screen aloud (if they are in a private setting). The kinesthetic learner is probably our greatest challenge. How do we engage students with the computer?

In the basic textiles computer modules that we are developing, we have tried to consider each of these learning styles. Screens present students with options to follow a linear path or to take topics in whatever order they choose. All of the screens are very visual and, throughout the program, students may click on highlighted words to jump to a glossary that presents both written and voiced definitions and includes graphics when necessary. Using the courseware software, we can develop self-quizzes, games, simulations, or other manipulative, interactive activities that address the needs of the kinesthetic learner.

We still have need for research into the unique needs of diverse audiences with respect to computer or web-based course development. Some proponents have suggested that students are less inhibited in their interactions with and through the computer. However, little information is available regarding the methods for developing computer courses which are friendly to diversity.

Crossing Disciplinary Boundaries

Throughout my career, my research has been interdisciplinary in nature. I worked with entomology faculty at LSU and with chemistry, engineering, ergonomics, and exercise science faculty at Virginia Tech. At FSU, my primary collaboration outside the department has been with the exercise sciences faculty in our college.

A great potential strength of our field is our ability to work with numerous other disciplines to develop research. It is critically important for us to cross departmental and other institutional boundaries. But what do these boundaries look like? Do they restrict our interactions with other faculty or do they define our unique contributions to collaborative efforts? My experience with interdisciplinary research is that it greatly enhances the quality of the accomplishments. I urge new professionals particularly to seek out opportunities to work with colleagues in other disciplines. If you experience unsuccessful attempts, do not
be discouraged. Many faculty in other disciplines are eager to work collaboratively. Be clear about the expertise you bring to the project and be sure there is a balance of contribution in the collaboration.

We also need to look at crossing boundaries within our Textiles and Apparel Programs. We have spent several years developing our specializations and this has led in some cases to a lack of integration of the areas. It is interesting that the industry is bringing us back to this idea of integration. In response to the increased focus on consumers, product development units are becoming critical to the survival of both retailers and producers. Positions in these units often require a combination of skills and competencies from across our specializations, and many schools have begun addressing this in their curriculum.

At the same time, research faculty must be developing their expertise in very specialized areas, and it is impossible for each institution to have experts in every area of expertise. So there is also opportunity for us to work across university boundaries in collaborative teaching and research endeavors. From what I have seen during this meeting, our organization is clearly on the right track where collaboration is concerned.

So let me conclude by stating our challenges. As textile science researchers, we must continue our quest to improve the performance of textile boundaries, particularly those used for protective purposes. As educators, we must continue to develop technological approaches to bridging various teaching/learning boundaries. And in all endeavors, we should seek opportunities to build bridges within and across disciplinary boundaries.

Recycling and environmental practices of textile and apparel manufacturers in South Africa and the U.S. were discussed. In addition, the attitudes and behaviors of consumers in response to green textile products were examined in this special session.

A COMPARATIVE PROFILE OF TEXTILE RECYCLING PRACTICES: SOUTH AFRICA AND THE U.S.

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Annette van Aardt and Ment Lamey
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A comparative profile of the textile industry in two diverse countries (South Africa and the United States) was conducted to ascertain whether or not the industries hold similar perspectives on the perceptions, opportunities, and challenges that affect the acceptance of recycled textile products. It was hypothesized that the industries' perspectives would be different.

Questionnaires were mailed to 93 textile plant managers in South Africa and thirty-four surveys were returned (37% return rate). The results from South Africa were compared with findings (90 returned surveys, 57% return rate) from the United States. The questionnaires and surveys were designed using Dillman Methodology (1978). Because of the small sample (n=34) in South Africa, only descriptive statistics were used.

Plants in South Africa can be characterized as more labor intensive as measured by number of employees per plant. Both countries produced products primarily in the broad-woven textile and yarn spinning sectors.

The plant managers' perspectives on the drivers of disposal were similar with respect to location of plant and amount of budget allocated for waste disposal. Consumer awareness was a stronger driver of disposal for the United States. Both countries had similar disposal process outcomes, selling their waste
to a recycler or to a manufacturer for further use within their operation. Landfills and recycling were selected more frequently in the United States. However, plants in South Africa recycled the waste more often within their own facilities by processing the fiber, yarn, and fabric further.

The industry in both countries reported similar company culture influences to produce a recycled textile product. Key factors were economic feasibility and cost. South Africa indicated a higher interest in producing products if recycled raw materials were available.

Both industries indicated that there were new market opportunities with recycled textile products. They recommended a marketing pull strategy of strong trade and consumer demand with a low to moderate price point, and a level of promotion that is the same as or higher than regular products.

The industries differed in their perception of the challenges that affect the acceptance of recycled textile products. Plant managers in South Africa identified lack of recycled raw material and lack of equipment to process as the primary challenges. Plant managers in the United States identified lack of a market, lack of equipment and cost of product as the primary challenges.


ENVIRONMENTAL MARKETING AND ORGANIZATIONAL PRACTICES OF TEXTILE MANUFACTURERS

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Introduction: As the "Decade of the Environment" (the 1990's) is coming to an end, environmental business practices have become more of a norm than a fad. This norm has created a new marketing era that requires solid waste management practices to be in congruence with marketing claims. The textile industry has taken great strides over the past decade to adopt environmentally friendly manufacturing practices, and these practices act as an image builder in today's consumer marketplace. Currently no research has been conducted to compare textile manufacturers' environmental marketing practices to their organizational practices and philosophies regarding the environment.

Purpose and Methodology: This study examines how textile manufacturers market the environment and compares their marketing strategies to organizational philosophies and practices. Conceptual models include Factors Influencing Company Marketing Strategies (Kotler, 1997) and the Hierarchy of the 3 R's of Solid Waste (Recycle, Reuse, Reduce). A 4-page questionnaire was completed during interviews with 13 marketing executives and 12 plant managers from broadwoven cotton and manmade fabric manufacturers with at least 1,000 employees in NC and SC.

Frequencies or means were calculated for all survey items. The hypothesis tested chi-square analysis (Fisher's Exact Test) was used to determine whether associations existed among marketing strategies, organizational philosophies, and actual practices of the sample manufacturers.

Results: Results indicated that textile manufacturers were not marketing the environment. Their customers, primarily apparel manufacturers, did not express concern in the environmental aspects of broadwoven textiles. All textile manufacturers were expected to follow Environmental Protection Agency guidelines, making it unnecessary to market what was federally mandated.

Textile manufacturers were incorporating environmental issues into their organizations through mission and vision statements as well as through specific environmental policies. Many companies were investing time and money in going beyond the EPA's regulations, and many were members of ATMI's Encouraging Environmental Excellence (E3) program. Companies sustained a position at the first level (recycling) of the Hierarchy of the 3 R's for most solid waste. Marketing executives did not view marketing of the environment as a viable business practice. Plant managers believed that environmental practices in manufacturing were very important.

Implications: There is a continued need for environmental practices by textile manufacturers. While marketing of the environment is currently not viewed as important, it may be necessary in the future to maintain competitive advantage in the market. Programs such as ATMI's E3 program or ISO 14,000 are good marketing features to promote environmental practices within the industry.

Kotler, P. (1997). Marketing management: Analysis, planning, implementation, and

RECYCLING OF SOLID WASTE IN THE APPAREL INDUSTRY IN SOUTH AFRICA

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Introduction: Accelerated economic growth and development in the era which South Africa is now entering could mean a renewed onslaught of industrial waste on the environment. Recycling offers an opportunity to convert industrial and domestic waste into useful products. The need for recycling of apparel waste is motivated by the increased costs of landfills, the decreased availability of landfill space (due to the housing development programme in South Africa), and the dwindling of our natural resources. South Africa is also trying to restore trade links to the rest of the world and developed countries in particular and must comply with their policies regarding waste reduction and recycling.

The aim of the study was to identify the current waste disposal and recycling practices of the apparel industry and to determine their attitude on and willingness for recycling and the use of recycled products in production, their perception of the feasibility thereof, barriers to recycling, and market strategies that would be appropriate for products made from recycled materials.

The method included the development of a structured questionnaire in collaboration with Dr. Grasso. The questionnaires were mailed to 338 apparel manufacturers in South Africa whose addresses were supplied by the Clothing Federation of South Africa. Frequencies and phi coefficients were used to analyze the data for significance. The procedure permitted that each response could be analyzed separately and correlated with size and type of apparel manufacturer. The size of the company was defined in terms of the total number of employees at the plant in 1996. Small-sized companies were categorized as those that employed 100 or fewer people, medium-sized companies employed between 101 and 500 people, and large companies employed more than 500 people.

The results indicated that various waste disposal practices are currently applied by the apparel industry. Most apparel manufacturers (60.6%) make use of landfills while 34.8% recycled some of their waste. Items most often recycled (in descending order) are cardboard and boxes, cutting room waste, paper, yarn cones/tubes, and packaging materials. Of those respondents who recycle their waste, only 7.8% process it within their own company while the majority sell it in bags to be used as re-used or recycled. They are fairly positive towards recycling and the use of recycled textile materials with consideration of economical feasibility as 38.6% make use of recycled materials in production. Most of the respondents had a perception that the products made of recycled materials are of lower quality than products made of new materials.

The most important barriers to recycling are lack of equipment and technology, recycled material, and markets. Most manufacturers support a market strategy that creates a strong trade or channel demand as well as a strong consumer demand for recycled products, and they advocate intensive advertising and promotion like trade shows, cooperative advertising, and point-of-purchase promotion.

The size of manufacturer and/or type of production had no meaningful effect on the results of this exploratory study.

It is recommended that consumer awareness and knowledge regarding recycled products should be developed to create a market for recycled products and that apparel manufacturers should be encouraged to recycle more extensively.

CONSUMER BEHAVIOR TOWARD RECYCLED TEXTILE PRODUCTS

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Introduction: Numerous surveys show that the American consumer is concerned about the environment. However, concern does not always seem to lead to actions such as increased recycling or purchase of environmentally responsible products as sales of those products stagnate.

Previous research suggests several reasons for these disparate results. First, many consumers find the terms used in labeling and discussion of recycling confusing. Further, fines and legal action levied against some unscrupulous producers and retailers have left
consumers suspicious of environmental claims so that some dismiss such claims as mere gimmickry. To some extent, the environmental labeling guidelines issued by EPA have helped to reduce confusion.

Calls for guidelines and other labeling actions implicitly assume that consumers read, comprehend, and understand labels. Much of consumer behavior research would suggest that this is not the case for the bulk of consumers’ purchases. Some studies have shown that consumers process relatively little information in familiar purchase situations. Instead they use heuristics to quickly make purchase decisions.

This study attempts to determine whether the pro-environmental attitudes lead to purchase of goods containing recycled fibers.

Method: This study consisted of a shopping experiment in which subjects could purchase shirts, sweatshirts, or socks made from recycled or non-recycled fibers among other purchases for a camping trip. In the experiment, prices of the products were rotated from high to low in order to determine whether price, recycled labeling, or an interaction of the two affected purchasing. Branding was not included in this study. After completing their shopping, subjects were asked to complete a questionnaire that measured their attitudes toward environmental responsiveness and collected some demographic information.

Results: The first part of the data analysis examined the relationship of various demographic factors with pro-environmental attitudes. The results indicate that consumers with pro-environmental attitudes are more likely to buy recycled goods, are more likely to be looking for higher priced merchandise, and have higher incomes. Thus, these preliminary results are in line with previous surveys that showed that pro-environmental attitudes are likely to lead to intentions to purchase environmentally responsible goods.

Purchase data from the experiment show that females are more likely to purchase products containing recycled fibers and that products containing recycled fibers are more likely to be purchased when they are priced lower than regular goods (i.e., those not containing recycled fibers). Correlations between the environmental responsiveness scores and purchase indicate that purchase occurs of goods containing recycled fibers increases when price declines. Thus, it appears that price considerations override the environmental issue for many consumers in the purchase decision.
include student access and using groupware such that every student responds to every discussion item. Suggestions for "pacing" students so that they could not work ahead of the class discussion were offered.

Oregon State University offers a web-based course, Fashion Theory. Oklahoma State University uses groupware to teach a pre-internship seminar and an upper-division merchandising course. University of Nebraska uses mixed media (videotapes, web-based group ware, email, other Internet resources) to teach classes for an Interdepartmental masters degree, and will launch a masters degree in Textiles, Clothing and Design in January 1999.

UNITED NATIONS
INTERNATIONAL YEAR OF OLDER PERSONS 1999
CLOTHING INITIATIVE

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Background
An interesting sequence of events has brought together a dynamic group of people who are focusing on the clothing needs of older persons. The connections that have been created include people from a wide range of backgrounds. Early discussions between Julia Alvarez, the United Nations (UN) Ambassador from the Dominican Republic, and a friend about the need for fashionable clothing that fit the needs of the older consumer began in the late 1980s at a World Health Organization conference in Malta. About ten years later, the Ambassador's plea for action was recorded on paper. Ambassador Alvarez subsequently sponsored the proposal that the UN recognize the International Year of Older Persons in 1999. Her proposal was adopted and a wide variety of activities are being organized to help celebrate the year.

The West Virginia connection was next. A couple of years ago, West Virginia was fortunate to have Ambassador Alvarez's friend, Dr. Hana Hermanova, move to West Virginia to become the Director of the West Virginia University (WVU) Center on Aging. Interaction with Nora MacDonald, a WVU apparel design professor, led to a presentation at the 1997 West Virginia Conference on Aging in Charleston, West Virginia, entitled "Building Self-Esteem Through Appearance Management." In addition, a preliminary discussion of design criteria was presented at the 1998 meeting.

The next link was the Sporting Goods Manufacturers Association (SGMA). Maria Stefan, the Executive Director of the SGMA, attended the 1997 West Virginia Conference on Aging. Possible collaborations were discussed during the meeting. The SGMA has developed a logo, "Active & Ageless®," to be used to promote healthy aging.
Another link is the academic sphere. In July 1997 several apparel designers attended the conference sponsored by ITAA in Lyon, France. During free time, possible options related to the United Nations International Year of Older Persons were discussed. The existing ITAA Design Competition was expanded to include apparel designs for the over-55 consumer.

Where have all these interconnections led? In January 1998 a planning meeting was held at the United Nations in New York City to discuss goals, objectives, and a strategy for implementing a clothing initiative which would focus on the clothing needs of the older consumer. The SGMA Super Show, the trade show for sport apparel and equipment manufacturers held in Atlanta, Georgia, includes a pre-show fashion seminar. The 1998 seminar focused on the growth of the older consumer market and how SGMA members could respond to their needs. ITAA members Jo Kallal, Nora MacDonald, and Kathy Mullet attended this event. A second planning meeting was held in June 1998 in Washington, DC to further refine plans for 1999. Then in July Maria Stefan and ITAA members Jo Kallal and Sandi Keiser met with Peter N. Butenhoff, President of [TC]², at their headquarters in North Carolina to discuss involvement by [TC]² in this initiative. The American Apparel Manufacturers Association (AAMA) also has expressed interest in lending their support to this initiative.

ITAA representatives of the United Nations International Year of Older Persons 1999 Clothing Initiative developed apparel design criteria recently. Committee members include Nora MacDonald, Jo Kallal, Sandi Keiser, Kathy Mullet, and Daria Dorosh. The design criteria were approved by the SGMA Board of Directors, November 1998.

**Design Criteria**

The basic criteria for the Active & Ageless® consumer are divided into four general categories: fit, fabrication, styling, and care. The philosophy underlying the criteria assumes that apparel developed for and marketed to this customer must transcend age by its contemporary styling, emphasizing lifestyle, attitude, value, and comfort.

Fit describes the relationship of the garment to the body. Good fit means that a garment harmonizes with the body and that one can move without hindrance. Clothing must imperceptibly reconcile changes in the figure that occur over time and encourage comfort without looking age specific. Styling details that provide adjustable fit should be used to accommodate consumers representing multiple ages. Manufacturers may want to consider using the American Society for Testing and Materials (1997) sizing as a guideline for the over-55 female consumer.

Fabrication focuses on color, fiber content, pattern, texture, and fabric hand. Brighter colors enhance gray hair and the skin tones of all ethnic groups. Lightweight, non-bulky, absorbent, and breathable fabrics with "give" provide better overall comfort. For warmth, fabrics that trap heat and repel wind enhance heat retention. Stain- and wrinkle-resistant fabrics reduce cleaning time and expenses. All material components should provide a soft hand against the skin. Non-seasonal fabrics, colors, and patterns can be used to expand wardrobes.

Styling includes structural and aesthetic elements. Designing current, classical apparel that enhances the older body, despite changes resulting from age, is essential for this market. Garment components can be designed to mix and match to provide multiple styling options. Styles should cover and camouflage key areas while design details should facilitate mobility and ease of dressing and undressing. Adjustable components should be included to enhance comfort control. Durable construction and sturdy components, including well-positioned pockets, ensure good value.

Care is important for Active and Ageless® customers who prefer easy care garments every day. Many consumers prefer washable or dry cleanable garments depending on the type of item. Garments requiring little or no ironing are preferred. Easy-to-locate, informative care labels with large, high contrast text that is easy to read are recommended.

In the future, the apparel design criteria approved by the SGMA board may be used to sanction apparel produced for active sportswear that meets the needs of the Active and Ageless® market. The criteria also may encourage designers of active sportswear, and eventually designers of all apparel, to design "inclusively," that is, to incorporate design features into individual styles that work for multiple markets. As this project progresses, we hope to build a critical mass of apparel firms that design inclusively and who will make a real difference in the lives of over-55 consumers.
Educational Outreach

Throughout the planning of the United Nations International Year of Older Persons 1999 Clothing Initiative, there has been agreement that educational outreach must be a strong component of the overall initiative. While a major celebrity or press event initially will bring the needs of this market to the attention of the public, there must be spokespersons and promotional materials that can support ongoing visibility.

Early efforts of the educational outreach sub-committee explored the costs of and interest in producing an educational video or kiosk. Working with a video production company interested in the project, an outline and budget was developed for a video. As the outline came together, the idea of expanding the video into an interactive kiosk was explored.

The proposed video would be approximately 15 minutes in length at a cost of about $50,000. Video content would include an overview of the UN initiative, a lifestyle segment, a visualization of the body changes that occur as people age, the design criteria developed by the committee for this market, a technology segment focusing on body scanning and mass customization, and interviews with consumers, designers, and product developers for perspective. Segments on retail accommodations for this customer, alternative shopping strategies, and clips of fashions aimed at this market are other possibilities.

The concept of free-standing kiosks that would allow the same information to be presented in an alternative format by different audiences also was explored. Kiosks would provide malls and retailers with a means of capturing consumer information for later application in mall services and product development. The thought was that retailers or malls might rent or buy kiosks in order to promote special events or have in-store shops that cater to this customer. In the process, they could poll participants as to their preferences and unmet needs. A combination of standardized and customized questions could be used. Standardized data could be collated and tallied nationally or internationally. Customized data only would be available to the kiosk sponsor. This concept also was considered for global distribution to international embassies in order to capitalize on the United Nations connection. Early inquiries determined that sites at the United Nations or international embassies were not feasible due to tight security and regulations regarding marketing for profit.

The proposal's content and potential for fund-raising was presented to an advisory group and to Peter N. Butenhoff, President of [TC]2. The advisory group confirmed that many sources were available for lifestyle tape that could be borrowed and would cut down on production costs. Pete Butenhoff is interested in the project as a possible fit with [TC]2's agenda. If participation was approved by their board, they might be able to provide some in-kind production services and assistance in finding funding support for the project. The SGMA, a major member of the initiative, also would help in locating film clips and identifying potential sponsors. Further fund raising is on hold until kick-off events for the initiative are confirmed. It is important that sponsors of the video understand the entire scope of the project and the support already secured for the initiative.

Initial plans are to proceed with a video which could be used to promote celebrity/press events related to this initiative and as a visual for spokespersons who promote this initiative at professional conferences throughout the world. It also would be available for sale to educational institutions. Further development of the video into an interactive kiosk would be dependent on funding and demand. Adding a multi-lingual dimension to a kiosk is an option which would produce more global exposure.

Options for Involvement

As the UN initiative develops, ITAA members have an opportunity to become involved in a variety of ways. Within the ITAA organization there are scholars who currently are developing new designs and addressing the fit issues of the older consumer. Market research and focus groups are other ways in which ITAA members have and can become individually involved with the over-55 consumer issue.

It is important that ITAA become further involved with the older consumer as a whole organization. The Vision Statement for ITAA, which was developed in June 1998, states, "ITAA will be the premier organization of textile and apparel professionals focusing on the interdependent, dynamic, and global nature of the field. We will serve as the leading provider of knowledge as well as agents of change for education, industry, and government." It is important that ITAA pursue the
idea of becoming the leading provider of knowledge about the clothing needs of the over-55 consumer. We will be able to do this by letting others know about our research and creative activities.

Currently, a special publication also has been approved for the dissemination of issues related to design. In addition, the dissemination of the needs of the over-55 consumer is planned through various media. Through industry contacts, ITAA should develop a program that allows its members to inform related organizations, such as the National Retail Federation (NRF), American Association of Textile Chemists and Colorists (AATCC), AAMA, and the SGMA, about textile, apparel, and retail issues for the older consumer.

To showcase this relationship to other fields and industry, ITAA should encourage the cross-pollination of fields such as podiatry with shoe design and optometry with fashion eyewear as a safety issue. In order to become a premier organization ITAA needs to show its commitment to research and creative endeavors for this target consumer and how we relate to other fields of study. ITAA should be primed to provide knowledge about the textile, apparel, and retail needs of the older consumer for education, industry, and government.

Future Plans

An Active and Ageless® fashion show, during the fall of 1999, will be a celebration of the United Nations International Year of Older Persons 1999. Sponsors to date include the UN, SGMA, [TC]², the AAMA, and ITAA. Designs will be solicited from SGMA manufacturers, AAMA members, and possibly from other designers. Submissions will need to follow the established design criteria.

Long term goals include (1) strengthening academic, design and manufacturing, and United Nations linkages by developing educational materials, developing student scholarships to study issues related to clothing for older persons, and developing internship opportunities for students and faculty to focus on apparel for the older consumer in an industry setting; and 2) expanding the program to envelope a broader international focus. The United Nations International Year of Older Persons 1999 Clothing Initiative offers an exciting opportunity to make an impact on the dress and appearance needs of older persons.
related to an individual's ideal and actual self image.

If the eighties was the decade to drape the body, the nineties has become the decade to drape the home. This trend is driven by the demographic and lifestyle characteristics of a large group of aging babyboomer consumers. With smaller households, babyboomers have more disposable income to furnish and decorate their homes. Lifestyle is linked to these demographic characteristics. For example, babyboomers spend more time at home. This has led to a "cocooning effect" where they are nesting in their clothing and home furnishings. As a result, these consumers are demanding better quality products and services and they are increasingly cautious about what they buy. Moreover, they want to dress with a total look, whether it is their body or their home.

Fashion apparel sales lag for babyboomer consumers. Because this aging population has the money and inclination to invest in soft furnishings, apparel designers and retailers are moving into home furnishings categories with expectations that home furnishings retailing will outpace future apparel growth. Home fashions are mirroring clothing fashions with ready-to-wear looks providing inspiration for patterns and hues in everything from sheets to decorative pillows and casual slipcovers.

Many consumer products, like home furnishings, have developed a shorter life span because they are fashion driven and not commodity items. Home furnishings life cycles will continue to shorten as consumers are coaxed into continuous home redecorating. Driven by consumers' growing demand for home fashions, many retailers are combining ready-to-wear clothing with home furnishings in a single store environment for shoppers to cross-shop products. This unique shopping experience offers customers a total look.

The existence of crossover fashion for apparel and home furnishings products has led designers and manufacturers to cross-brand. Designers' success depends on creating home products that closely follow their apparel line since they must appeal to the same demographic group with their home products as they do in their apparel lines. This builds on the consumers' willingness to buy in categories where designers do not currently exist. Private label apparel brands may also do well to enter home products (i.e., JC Penney's Arizona).

Industry and Crossover Fashion

A number of apparel and home furnishings partnerships exist, including Nautica/Lexington, Bill Blass/Springs and Pennsylvania House, Eddie Bauer/Lane and At Home, Alexander Julian/Universal and JC Penney, Bob Mackie/American Drew (LADD), Adrienne Vittadini/Gramercy (F. Schumacher), and Calvin Klein/Home Innovations. The most frequent fashion crossover from apparel to home furnishings is that made by apparel designers including Ralph Lauren, Donna Karan, Tommy Hilfiger, Missoni, Gucci, and Versace. Other apparel designers partnering with manufacturers to produce home lines include Liz Claiborne, Karl Lagerfeld, J.G. Hook, Giorgio Armani, Banana Republic, Guess and Baby Guess, Anthony Mark Hankins, Jessica McClintock, and Ellen Tracy. Customers are able to buy into a lifestyle, not only in their wardrobes but also in their homes. Furthermore, manufacturers with strong brand recognition are interpreting their apparel look in home furnishings. For example, Guess uses the same stone-washed, overdyed denim to produce jeans to make tablecloths and placemats for their Guess Home Collection Shops. Esprit and Nautica are interpreting their signature looks into bed and bath linens while Circle T, initially a Western-wear apparel manufacturer, is accommodating a specific customer demand for similar home furnishings with a Saddle Ridge Home Collection. Victoria's Secret and Banana Republic are two traditional apparel retailers who have implemented crossover fashion by expanding their merchandise categories to include home furnishings. The labels that perform best at retail are those that have successfully translated their signature apparel looks into home furnishings.

The crossover fashion trend is also evident in consumer publications such as Elle, a consumer fashion magazine, and Elle Decor, a consumer home furnishings magazine. According to Marian McEvoy, Editor-in-Chief of Elle Decor, the home furnishings industry is hoping that this fashion focus will do for them what it did for apparel manufacturers. In the October 1998 issue, Elle Decor posed the question, "what fashion trend for fall would be great for the home?"

Integrating Crossover Fashion into Merchandising Curriculum

As many schools face declining enrollment, they are forced to innovate or die. The fashion industry has demonstrated an innova-
tive way to expand its opportunities by growing consumer bases through crossover fashion. This same phenomenon opens new opportunities for textile and apparel programs to grow student populations. At the University of North Texas, the crossover fashion phenomenon influenced a revised conceptualization of the merchandising program with a subsequent integration of crossover fashion into course content. In the Merchandising Division, students can major in Fashion Merchandising (M) or Home Furnishings Merchandising (HFM). In both programs, students complete a 31-hour core built on three merchandising foci: production/distribution systems, product evaluation, and product use. Within each program, students complete 16 program-specific hours. For example, HFM majors complete courses such as Introduction to Home Furnishings and Home Furnishings Industry while M majors complete courses such as Introduction to Fashion Merchandising and Textiles and Apparel Industries. Majors in both programs have the opportunity to specialize in six additional hours in the three merchandising strands: production/distribution, product evaluation, and product use. Some courses rotate to meet the needs of both majors. For example, the Merchandising Study Tour course alternates annually between New York City and High Point, NC. Additionally, across the division, each course integrates concepts from both fashion and home furnishings industries.

In attempts to expand program visibility on campus, the Merchandising Division developed three minors for students in related programs—Interior Design, Fashion Design, and Marketing—to develop merchandising expertise. The minors include Merchandising with a Fashion Emphasis, Fashion Merchandise Development, and Home Furnishings Merchandising.

The introductory core course, Aesthetics and Environment, illustrates how students explore the crossover fashion concept. This course introduces elements and principles of visual merchandising, aesthetic and functional consideration in material selection, and basic concepts of spatial relationships in apparel and home furnishings. An innovative teaching strategy, Personal Design Project, was initiated in this course. The project's objectives are for students to identify (1) aesthetic preferences for apparel and home furnishings; (2) similarities, differences, and relationships among their apparel and home furnishings; and (3) apparel and home furnishings market trends. To complete this project, students photograph their apparel and home fashions that represent personal aesthetic preferences. The images are scanned and subsequently presented to the entire class via PowerPoint. Students' visual and verbal presentations of individual preferences facilitate a lively classroom discussion.

Industry involvement has been instrumental in the merchandising program's development and growth. An active board of governors links industry to the classroom with recognized leaders from companies representing both the apparel and home furnishings industries (e.g., J.C. Penney, Dallas Market Center, Pier 1, Bombay Company, and Nordstrom). The board provides industry insight to the merchandising program and includes support of student experiences and faculty development. Another industry benefit is the J.C. Penney Executive-in-Residence program that supports a lecture from a noted person in either the apparel and home furnishings industry each semester. Student internships enable students to implement the knowledge and skills gained from university courses and to analyze the business practices observed in the textiles, apparel, and home furnishings industries. An interesting outcome of the internships has been the opportunity for students to crossover in the apparel and home furnishings industry each semester. Student internships enable students to implement the knowledge and skills gained from university courses and to analyze the business practices observed in the textiles, apparel, and home furnishings industries. An interesting outcome of the internships has been the opportunity for students to crossover in the apparel and home furnishings industry each semester. Student internships enable students to implement the knowledge and skills gained from university courses and to analyze the business practices observed in the textiles, apparel, and home furnishings industries. An interesting outcome of the internships has been the opportunity for students to crossover in the apparel and home furnishings industry each semester. Student internships enable students to implement the knowledge and skills gained from university courses and to analyze the business practices observed in the textiles, apparel, and home furnishings industries. An interesting outcome of the internships has been the opportunity for students to crossover in the apparel and home furnishings industry each semester. Student internships enable students to implement the knowledge and skills gained from university courses and to analyze the business practices observed in the textiles, apparel, and home furnishings industries. An interesting outcome of the internships has been the opportunity for students to crossover in the apparel and home furnishings industry each semester. Student internships enable students to implement the knowledge and skills gained from university courses and to analyze the business practices observed in the textiles, apparel, and home furnishings industries. An interesting outcome of the internships has been the opportunity for students to crossover in the apparel and home furnishings industry each semester.
MANAGING HISTORIC COLLECTIONS

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Panelists
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Collections of historic textiles or clothing, of great interest to students, alumni, and the public, are often a challenge for the faculty and staff in the academic programs in which the artifacts reside. Collections need constant maintenance, suitable storage, and a reasonable inventory system to be useful to the various constituencies that want or need access to the items.

This ITAA session was designed to share ideas about managing historic collections to maximize their potential for enhancing both education and outreach. This report presents highlights of the points made by the panel members and during the audience discussion.

Dr. Jane Farrell-Beck spoke about the "teaching" collection at Iowa State University and emphasized that it was not a public museum. The collection supports classes and graduate study. It includes varied textiles from around the world, with strength in textiles from Guatemala, China, Japan, India, and Indonesia. Further, it has items from men, women, and children, with the oldest dating from the 18th Century. Dr. Farrell-Beck emphasized that written policy statements explain processes to the public. The policies cover donation of items, loans to other institutions or museums, and handling and shipping details. Finally, the policy explains how items are deaccessioned, if necessary. No promises are made to return or exhibit items donated to the collection.

Several Textile and Clothing courses allow students to examine items visually and with gloved hands to see details. Items are used to study conservation and research methods or for mounting exhibits in cooperation with the University Museums. A recent Farm House Museum exhibit was on "Signature Objects of Iowa State Women." Costumes from Nigeria, Ghana, and Southeast Asia are used in a course on Dress and Culture.

Farrell-Beck says, "A crucial aspect of outreach [with the collection] is public relations with alumni, friends of the University, and interested groups in Central Iowa." Temporary exhibits are often prepared for departmental visitors while longer-term exhibits appear in other campus museums or in cooperation with Iowa historical societies. Sometimes faculty visiting high schools to recruit new students take items along to display. A slide set, "Family Apparel: 150 Years Iowa Style," was created to coordinate with Iowa's Sesquicentennial Celebration in 1996. Also, a videotape, "A Look in the Attic Closet," was produced for youth and 4-H showing historic children's clothing for various activities.

The ISU collection is currently being inventoried by a cadre of 15 volunteers, using paper forms as a first step toward computerized record keeping. Volunteers attend a training session to learn the purpose and methods of inventory. They bring varied expertise but contribute greatly to the accuracy of the records. Farrell-Beck says, "Volunteers are rewarded with an annual luncheon, small gifts, and the chance to work with a fascinating array of textiles and costumes." Storage and conservation study space will be renovated when the department receives an expected estate gift.

Dr. Linda Arthur reported that resources at the University of Hawaii-Manoa for managing the costume collection were limited, but that the collection was extensive. With over 15,000 items, it is the largest ethnic costume collection in an American university. While it does have western costumes, the collection focuses on Asia, the Pacific, and Hawaii. The collection is used in half of the Department's classes and in a forthcoming interactive web site so that students can have virtual access. Storage of the collection is a problem because of the tropical climate, beetles, and limited electrical power to support air conditioning. Additionally, the building does not meet ADA guidelines.

To gather data in support of claims of need for improved facilities and more staff time, Arthur conducted a survey of academic members of International Textile and Apparel Association member universities cross-checked with the Costume Society of America. The findings of her study were published as "Resources for Costume Collections in American Universities" in the Journal of Family and Consumer Sciences, Vol. 89, No. 3, Fall 1997. Among the 51 schools reporting, she
found that collections were used by undergraduates (67%), graduate students (14%), scholars (29%), faculty (15%), the public (7%), and others (3%). With record keeping, 50% of the institutions had both manual and computer records, but 29% had computer only and 21% had manual only. Her data show that small collections have more space per item than larger collections and that few institutions have adequate staff, space, or appropriate facilities.

The curators who responded to the survey stated that collections have great public relations value and collections must be used for outreach. Arthur concurs and believes that to reserve them only for teaching is to risk having them eliminated. As a public relations tool, they developed a "1960s and Forward" traveling collection to lend. She suggests finding partners in industry or with other institutions to sponsor exhibitions. She believes that, if collections are summarized in a multi-media database having video linked to text via CD-ROM, they will be more accessible to communities and the public and suggests trying to get grants for this purpose. She encourages collecting photos and family information relating to each item in a collection so that the database is more useful and complete for professionals who may seek to use it.

Professor Myra Walker, from the University of North Texas in Denton, had a different outlook on "outreach" and exhibits. She is responsible for a 20th-Century collection that originated with Stanley and Edward Marcus, who began the collection in tribute to their aunt, Carrie Marcus Neiman. Once housed in the Dallas Apparel Mart, under the jurisdiction of the Dallas Fashion Group, the collection moved to the University of North Texas in 1972. The Texas Fashion Collection now includes over 10,000 garments and accessories and is housed in a 4,500 sq. ft. climate-controlled space at UNT.

Using this collection, Walker mounts many exhibitions, including a recent one on "History of the Tea Gown" for the Dallas Woman's Club. Walker believes that mounting exhibits for groups is rewarding, but they are only seen by a few. She notes that successful exhibits must always have popular appeal and should be seen by many. As Director of the North Texas Fashion Collection, Walker insists on the importance of applying for grant funding. A grant from the National Endowment for the Arts allowed a complete inventory of the Texas Fashion Collection and funded their on-line web site. Their page clicks to other pages where anyone can learn more about the history of the collection, its on-going purposes, and its management. As an outreach tool, the internet is particularly effective.

Walker has received a "technology" grant to develop "The History of Twentieth-Century Fashion" as a web course. She believes the library system should be used to create an on-line catalog of costumes and textiles that is searchable and has web site access. As a collection of objects, most costume collections have merit enough to be catalogued with the other library resources. With volunteers assisting with such things as making padded hangers and helping to inventory shoes, the Texas Fashion Collection is getting more organized.

Questions from the audience at ITAA concerned various aspects of collection management. A question about disposing of collections when program changes occur was raised. Clear policy statements and signed agreements at the time items are donated and accepted can prevent awkward situations later. Faculty should not be in the position of needing to find someone’s previous donation to return it if a program is closed. When the University of Iowa closed its Home Economics program, the entire collection was moved to Iowa State University, which was under the same Board of Regents. However, space for the new items was not provided and records were a bit of a challenge.

Costume collections offer an opportunity for faculty in textiles and apparel to offer short programs or mount displays of public interest. However, few departments have personnel or resources to manage collections in the best possible way. Creating "trunk shows" to loan, media presentations, or web pages help make the collections more visible to the public and can draw attention to academic, research, and extension programs in Textiles and Apparel.
APPAREL DESIGNS FOR THE OVER-55 CONSUMER

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Understanding the design and research methodology behind a final product is key to understanding the framework underlying the garment concept and structure. The following design research represents a sampling of successful projects submitted in the over-55 category of the 1998 ITAA Design Competition.

In each work, the designer has probed for solutions to meet varied needs of the older market. We hope these insights will lead to improvements in the design of apparel that is sensitive to the needs of the over-55 market. The projects focus on fit, fabrication, and design relative to specific design problems, including needs related to generational cohorts, petite body frames, pants fit, and team and individual active sportswear. Individual approaches to common design issues result in both related and varied solutions. One project introduces students to custom design for a market whose clothing needs are divergent from their own. Their solutions suggest that older individual consumers do not necessarily want ready-to-wear apparel that fits a frequently held mental image of "clothing for older persons." This session was sponsored by the ITAA representatives of the United Nations International Year of Older Persons 1999 Clothing Initiative.

Generational Cohort Design
Sandra Keiser, Mount Mary College

ASTM and others frequently define the older market as anyone over 55. This is the age when body changes begin to differentiate older women from their missy counterparts and early retirement may mean changing apparel needs. For marketing purposes, older consumers must be differentiated further according to their generational cohort group. According to William Strauss and Neil Howe, there are three generational cohort groups at or nearing retirement age. The GI Generation, currently 73-96; the Silent Generation, now 55-72; and the Baby Boomers anticipating retirement and now age 37-54.

"Comfort in Coral" was designed for my mother who is 70 years old and a member of the Silent Generation, ages 55-72. Most of her contemporaries have adopted a rather casual dress code consisting of pants and sweatshirts or sweaters for their retirement lifestyle. While many women in this age group enjoy shopping, they have been turned off by the absence of garments styled and fitted for their age group. When they do require professional attire, it is difficult to find quality items with a comfortable fit in a becoming coloration and style.

Knits dressing offers a viable solution for this wardrobe challenge. The natural give of knits provides comfort and a more forgiving fit than woven garments. While traditionally two-piece knits such as "St. John" are marketed as one, there is an opportunity for manufacturers to develop knits as coordinate groups that would cater to the styling and fit needs of this target market. This jacket was proportioned for my mother's petite figure. The collar camouflages crepey skin at the neck. The skirt is approximately two sizes larger than the jacket to accommodate her pear-shaped figure. A group of coordinates might include alternative jacket styles, a pleated skirt option, and a knit pant, all available separately to accommodate individual sizing needs.

Designing for the Petite Figure
Carolyn Schactler, Central Washington University

The fit and design problems experienced by petite, over-55 women led to this research. The term "petite" does not apply only to a general group of little people. It applies to many sizes and implies a deviation from usual sizes in terms of proportion. Petite bodies have proportionally shorter waist lengths, crotch depths, and arm and leg lengths as compared to their circumference measurements.

"Nautical and Nice" was inspired by a design request from a petite senior citizen. She wanted a classic and casual outfit other than a "sweats ensemble." The jacket is made of traditional navy blue corduroy lined with red faille. The trim on the collar and cuffs is a
simple gold braid. To conceal the short waist length, the basic jacket has a slim design, slightly above hip length, that just accommodates the waist size. It features center-front gold buttons designed to create a vertical line. A convertible collar camouflages neck wrinkles but is low enough to allow for the slightly lowered head position.

Narrow white pants complete the nautical look and continue the illusion of height. The pants are drafted with a flat seat and shorter-than-average crotch depth. The front crotch length is slightly longer than usual to cover the tummy. The back waistband is elastized to allow for variation in waistline measurements.

**Pants Fit for an Older Body**
Nancy O. Bryant, Oregon State University

The objective of the design entry, "Tribal Roots," was to create a pants and jacket ensemble for the over-55 female that is designed to fit the target market body while also enhancing the appearance of the wearer. The pants were designed from a pant pattern developed specifically for this age group.

This design project has its roots in a graduate thesis project, begun nearly 10 years ago and completed in 1994. The focus of the graduate study was the development of a pants pattern for the aging female body. Pants were drafted from body measurements of "typical" females over age 50 whose body contours have changed due to the aging process. Style details were added to the pants. The prototype garment was tested on eight fit models. The resulting pattern was graded into a complete size range using grade rules adapted from the target body shape. One small and one large size graded pattern were sewn as prototypes and tested on additional fit models. The pants pattern was used to produce a two-piece jacket and pants ensemble for the over-55 market.

**Team Active Sportswear**
Janet Hethorn, University of Delaware

Uniforms were designed for a basketball team of women in San Diego, CA, ranging in age from 50 to 82. Awareness of their need for uniforms became apparent while watching a news report on national TV. They played aggressively in shorts that did not fit well and oversized T-shirts that restricted motion. Clearly something needed to be done, not just for these women, but for other older athletes who choose to stay active as they age. Many clothes are available for golf and other more traditional sports for older participants. However, when it comes to active sports requiring a wide range of motion, the choices are limited, even non-existent. Although it may be pushing the stereotype of older people to see them engaging in basketball, it is actually becoming very common for older athletes to participate in very active, aggressive sports.

The team was contacted to determine if they wanted help. They were very grateful that a designer was interested in them and cooperated by scheduling focus groups and observation sessions. The research process included a two-hour videotaped discussion that addressed their concerns and basketball requirements. The players also reacted to visuals and actual garments. A lively focus group session ensued. In addition, four hours of practice sessions were videotaped, still photos were taken, and individual interviews were conducted. The focus group interviews were transcribed and content analyzed. The videotape was analyzed for motion requirements and garment limitations. Still photographs then were selected that illustrated the findings.

Designs were developed that integrated the findings from the focus group and movement analyses. Team requirements for the sport were also addressed. Involving the players in the design process through sketch evaluation and prototype testing ensured that the uniform designs successfully met the design criteria.

**Individual Active Sportswear**
Kathy Mullet, Radford University

Problems encountered with current scuba wear include sizing and, more importantly, the styling of existing scuba suits. Existing suits in a jumpsuit style with a front zipper are very difficult for older persons to don or doff. Fabrics used are typically neoprene or, more recently, a polyester fleece and spandex knit. The fleece type fabric is used for warm water diving.

To resolve these issues, a suit was designed using a combination of different fabrics. Designed for warmer water temperatures of 70-80 degrees, fabrics used in this suit include windproof pile fabric in the body and sleeves and fleece/spandex fabric for the sides and pant regions. The windproof fabric provides protection, not from cold water but from the wind which is encountered while standing on a boat waiting to dive. The polyester/
spandex knit provides warmth and features stretch for easier dressing. Neoprene cuffs give the hands added warmth.

Design features include a jacket and pants combination that are one-piece in the back but separate in the front. This allows the wearer to don the garment easily and allows the pant to fit over figure types with different stomach contours. Although the jacket is attached to the back of the pants, it opens fully to enable the sleeves and front to be donned easily. The design resolves issues related to difficulties faced by older divers with limited range of motion in donning and doffing existing jumpsuit styles. The front closure features a specially designed zipper. The zipper is closed by simply hooking the sliders together rather than using the typical channel insertion techniques found in most separating zippers. Additional features include zippers on each leg opening and adjustable wrist closures. These features allow for ease in donning and doffing.

As scuba divers become older, their equipment and diving suit needs change. Though manufacturers are very innovative in their use of new fabrications, they may not be conscience of modifying garment styles and sizing to accommodate the older consumer.

Students Design for the Older Consumer
Nora M. MacDonald, West Virginia University

All students in the Flat Pattern Design course at West Virginia University were challenged to design one original garment for an older consumer during spring semester, 1998. Four teams of four students each worked with an older client from the community. Clients came to the design studio for fittings, design analysis, and the final modeling session. The students worked as a team to develop and fit one basic muslin dress. From the foundation pattern, each student developed a sloper for her client. The student teams interviewed their client to determine color, fabric, and style preferences. They also determined body characteristics the client wished to camouflage or enhance. Some body changes related to aging were identified by the clients while others were not. All factors were taken into consideration during design development. The students benefited greatly from this experience as it broadened their outlook on apparel design for the older consumer.


ACTIVE LEARNING AND AESTHETICS:
ENGAGING DISCIPLINES, SCHOLARS, AND STUDENTS

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Engaging Disciplines and Scholars

We began this presentation by discussing how active learning and aesthetics engage each of us. Even though we come from an array of disciplinary perspectives (i.e., consumer aesthetics, cultural studies, social-psychology, and design), our research or artistic activities encompass aesthetics. These disciplinary perspectives shape the active learning exercises built into our classes.

Active learning engages us personally, allowing Ann Marie Fiore to break from the presupposition that successful instruction results in a "normal distribution" of learning where the majority of students fail to achieve a high level of comprehension. Active learning also permits Nancy Rudd to address psychological and physical health issues of eating disorders, driven by the pursuit of attaining the ideal body in U.S. culture. It helps maintain Nancy's excitement while teaching the same course for many years. However, active learning offers challenges, such as the giving up some control during class, as mentioned by Marcia Morgado, and Diane Sparks' need to rethink the way she defined class activities. The advantages outweigh the challenges. Marcia articulates this sentiment:

"My preference is to structure classes around heavily content-laden lectures. I want to control the nature of course content, where emphasis is placed, and the amount of material covered in each session. The realization that the best I can expect students to come away with is recall (they can remember major points, reconstruct lists, provide definitions, and give illustrations) guides my efforts to engage higher cognitive levels by replacing lectures with exercises that challenge students to think, to reason, and to become responsible for their learning."
Active Learning Strategies

We created an active learning environment during our discussion of strategies, techniques, and examples of active learning exercises. We discussed and illustrated two important strategies for building an active learning environment, creating a positive tone and creating a charged environment.

To create a positive tone in the active learning environment, it is important to build rapport by introducing oneself to students on a more personal level, showing similarities, expressing one's joy of teaching, establishing credibility, and building connections among class members. A positive tone is supported by alleviating fear through humor, building cooperative behaviors, and implementing confidence-building activities before graded assessments. Further, a positive tone is fostered by explaining the benefits of knowledge to students and using positive verbal and nonverbal reinforcement with students.

To create a charged environment rather than passive acceptance by students, an instructor should draw upon natural curiosity to keep students interested. As an example, before presenting empirical evidence of student success resulting from an active learning approach we asked participants to relate this information to the reason why "active learning does not equal Ramen noodles." A charged environment encourages students to reflect on what the instructor proposes and to relate new information to what students already know or have experienced.

Active Learning Techniques

We provided tips for and examples of three active learning techniques: collaborative or small group learning, full-class learning, and affective learning.

Collaborative or small group learning entails dividing the class into smaller groups to practice or work with new course material.

Marcia Morgado provided the following small group activity:
(1) Students as teachers. In this activity, small groups are each assigned responsibility for becoming the class expert on a particular course topic (such as a design principle) and for effectively engaging the class (as well as the instructor) in learning about the subject. Group presentations (a) include assessments of similarities and differences in how topics were addressed by the various sources used for gathering information (i.e., absence or presence of discussion, information prescriptive or apparently objective, relative ease of reading and understanding); (b) are guided by student assessments of the major points which should be addressed in class; (c) must show evidence that students have given consideration to the merits (clarity, relevance, adequacy) of using examples and illustrations provided by the resources, rather than using their own examples to support the lesson; and (d) must include an interactive exercise around the materials of the lesson. Finally, each group must (e) propose at least two examination questions on their topic, one which tests recall and a second involving analysis or synthesis. Active learning skills addressed in the exercise include gathering data, considering points of view and assumptions, becoming comfortable with ambiguity, assessing central ideas, distinguishing among types of information, evaluating based on criteria, engaging with the content, and thinking about thinking.

Nancy Rudd offered the following small group learning activities she has found useful within large lecture classes or lab sessions:
(1) Fragrance/garment associations. Students bring fragrances and categorize them into 6 groups used in industry. Nancy brings many garments from the costume collection, and students try to "match" fragrances to garments, discussing common formal and expressive elements. Students also consider marketing implications.
(2) Personality characteristics. Using the 6 categories of personality identified in the literature, students try to categorize themselves and others in their small groups. They pick garments from current fashion magazines that match these categories and analyze why they work well together.
(3) Body image. Students discuss cultural definitions of beauty, comparisons with peers and media images, routine and hazardous behaviors to alter appearance, and the effect on self-esteem. A written report follows.
(4) Color psychology in ads. Students select an apparel or furnishings product ad and analyze color relationships, eye movement, emotions evoked, and consumer impact.
(5) Auditory associations. Nancy brings fabrics that create noise to class and students draw garment designs that emphasize sound and de-emphasize sound.

Diane Sparks contributed to examples of small group or collaborative learning.
(1) Creative problem solving. Diane described a creative activity drawing upon a 7-step model
of design as problem solving (Accept Problem, Analyze, Define, Ideate, Select, Implement, Evaluate). Diane introduces this model by lecturing/giving examples from her own experience and that of other designers. Then the class divides into 7 groups. Each group gets a card with one of the 7 steps written on it. Diane gives the class a design problem/opportunity to work through, using the model (usually, she gives them a design problem she's currently working on—at the time of the presentation the problem was redesigning a commencement robe for a person in a wheel-chair). Each group comes up with the activities they would be engaged in during their phase of the design process and presents this to the class. As they present, Diane supplements what they say with some of the real activities that are or have happened in solving the actual problem.

Full-class learning resembles lecturing. However, it also involves frequent student exchanges and emotional, sensory, and physical involvement of students.

As an example, Marcia Morgado provided the following activity:
(1) Developing sensory awareness and aesthetic vocabulary. Students need to build a visual vocabulary; without this, they lack tools for thinking and thus they lack tools for learning. In this activity students work in informal groups to evaluate and select (from a prepackaged set of labeled fabric swatches) those that best represent the most extreme examples of such textile properties as flexibility, resilience, and compressibility. As they work, they are challenged to use and record detailed descriptive language and to identify the senses they engaged to assess textile properties and the criteria that informed their judgments. This element of the activity guides students in developing a rich and detailed vocabulary that helps others understand otherwise unspoken assumptions about how various textile properties might be assessed and evaluated. Additionally, students become sensitive to the idea that evaluation of ostensibly objective properties may rely on multiple forms of sensory perception.

Nancy Rudd offered the following full-class learning activities to engage the class:
(1) Commodification of beauty. The class watches a video segment of young girls in beauty pageants and a clip of a Miss Universe pageant and then argues the pros and cons of pageants.
(2) Social stigma and appearance. The class watches a compelling video such as "They shoot fat women, don't they?" (Designing Women) or a video clip on cosmetic surgery, breast implants, etc. The class then holds a class debate on body size and attractiveness in which one side of the room argues in favor of narrow norms and the other argues for diversity in appearance norms.

Further examples of full-class learning were provided by Diane Sparks.
(1) Design elements and draping applications. When teaching visual and tactile elements of design, Diane Sparks gives a slide lecture on surface texture of fabric and skin/hair using the terms "determinate" and "indeterminate." Also included are fabric print characteristics centered around the idea of figure/ground relationships and the terms "planar separation" and "planar integration." Then, back in the classroom where there is a large table surface created by pushing several tables together, Diane unrolls a number of 6-yard pieces of fabric in varying light reflectance and texture (smooth, fuzzy, shiny, matte, nubby, ribbed). Each student is encouraged to feel each fabric and to observe the way fabrics of different textures play against each other. The volume and scale of the fabrics she shares have a big impact on the students' experience of how the beauty of fabrics can inspire an apparel designer. Then Diane unrolls several 6-yard pieces of print fabric to call attention to differences in figure/ground relationships. She explains half-drop repeat systems and challenges students to find the repeat design unit.

This is followed by a small group activity, where Diane's students work with half-scale mannequins and fabrics chosen from 51 tote drawers of fabric sorted by color and pattern. Each group cuts, drapes, pins and then describes what the focus of the design is, where the design would be worn, and who the intended wearer would be. The activity bears resemblance to the mice in Cinderella making a ball gown from scraps. The joy and sense of fun during this is quite wonderful. Students learn experientially about fabric hand and drape, as well as the essence of the draping process.

(2) Exam reviews. Diane offered a second full-class activity useful when reviewing for exams. It draws upon a card sort method. Each person in the class is provided with a 3" x 5" card with a term (that has been covered in lecture or reading assignments) on it. Using notes and/or the course textbook, each person defines or describes the term provided. All of the other students in class can look up the term
being described and add it to their notes. Diane also adds information to some of the terms as they are being described. Diane has found that this has turned out to be a very animated way to review material—some students discovered that they could not understand their own notes.

**Affective learning** entails activities that enliven and examine feelings, values, and attitudes related to course topics. Both Ann Marie Fiore and Diane Sparks draw upon films to engage students:

1. **Importance of aesthetics.** Ann Marie's students view "Dead Poets' Society" and then consider the importance of aesthetics to individual happiness and to society. Students examine the roles of the family, peers, and education in the development of aesthetic appreciation. The film has a powerful impact on the emotional experiences of many students that persuades students to consider more deeply the ramifications of squelching aesthetic appreciation and creativity.

2. **Designer's perspective.** Diane uses the film "Unzipped" and refers to the topic of the day as "Design from a Designer's Perspective." The film elicits discussion related to (a) varying personal aesthetic, (b) vulnerability to the press, (c) functioning in a time-pressured environment (d), surrounding oneself with various aspects of aesthetics (music, visual art, food), and (e) human interaction in a team environment.

Some of the activities proposed earlier by Nancy Rudd (e.g., Social stigma and appearance, Body image) could represent examples of affective learning. These issues are laden with emotion for many students and require examination of culturally shaped values.

In summary, active learning and aesthetics has engaged each of us, allowing us to draw upon our academic areas of expertise and our personal characters. Active learning has also engaged students in many ways, leading to higher levels of learning, as witnessed by an increase in exam scores in our courses. Student evaluations of our courses illustrate that active learning has resulted in more positive attitudes towards our courses and the subject matter.

**WRITING TO LEARN IN THE APPAREL CURRICULUM**

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Student involvement is critical to successful and sustained learning. One of the ways that students become involved in the classroom is through formal and informal writing. Denise Bean, during the first part of this session, shared the results of a study designed to explore the types of writing required in apparel curriculums (i.e., retail merchandising, clothing design programs) across the United States. A list of universities/colleges offering programs in either clothing design or retail merchandising and having email accounts was developed from the 1996 ITAA Directory. This process resulted in 86 programs. Instructors representing these programs were surveyed using email. In instances where instructors requested a hard copy, it was sent by mail. Descriptive statistics were used to analyze the data.

The questionnaire consisted of two parts. The first part was focused on gathering information about the participants and their programs. It featured questions including how many courses are offered through this program?; how many majors?; and whether the program offered courses they considered writing intensive. The second part of the questionnaire focused on the courses that the participants were responsible for offering. It featured questions including type of course, average number of students enrolled, and types of exams offered and amount of writing required in the course.

A total of 37 questionnaires representing 30 undergraduate programs was included in the data analysis, resulting in a program response rate of 34.8%. Respondents were all female. A majority had a Ph.D. or Ed.D. degree (79.9%), were tenured (66.7%), and taught full-time. The majority of the programs represented are on a semester system (87%). The median number of courses offered by these programs was 22 with a range of 7 to 115 courses. Enrollments averaged 152 majors per program. The majority of the programs (77%) were located in universities/colleges that require students complete writing intensive courses for their degrees. Eleven of the 30 programs offered a course that met their uni-
versity's/college's requirements for being writing intensive.

The data about the type and amount of writing required in 167 courses were presented. Overall, these courses were lecture based (38.1%) or lecture/lab based (33.5%), were offered within the regular academic year, and had an average enrollment of 28 students. Eighty-seven percent of the courses had at least one examination during the course. Objective questions and in-class essays were the primary types of exams used. Written portions of the exam accounted for an average of 40.2% of the total exam grade, were evaluated for both content and composition (55.9%), and were graded primarily by faculty members. Seventy-eight percent of the courses had at least one assignment that required writing outside of class. Most writing assignments were individual projects, required an average of 18 pages of writing, and accounted for an average of 36.2% of the course grade. A faculty member (91.3%) graded writing assignments.

Overall, participants indicated the amount of writing they were requiring was about right (81.5%). More participants agreed that requiring writing in their courses would help students develop skills needed in the workplace (45.2%) than agreed that requiring writing would help students master key course concepts. Only 11 percent (n=17) of the 167 courses represented in this study met their institution's requirements for being writing intensive.

Elizabeth Bye, during the second part of the session, shared rationale and reasons to incorporate writing in the apparel classroom. Writing can be used to help learn, not just evaluate, and it makes learning "visible." Different learning styles can be addressed in an active classroom of which writing is a part.

Writing assignments can range from informal to formal. Informal writing includes journals, observations, and freewrites. These are usually expressive, messy, exploratory, and close to the self. Micro themes, abstracts, or one-page reaction papers move along the continuum towards more formal writing such as term papers, essay exams, and lab reports. These more formal writings are transactional, reader focused, and polished.

The types of writing assignments given in a class depend on the learning goals. The instructor needs to decide if the assignment is to show understanding of course content, ability to analyze, critique or compare, experiment with ideas, understand the format of the profession, or provide a lead to class discussion. Bye presented several assignments that could be adapted to specific course content from informal to more formal.

The Double Entry Notebook is an informal writing assignment that allows students to react to interesting, confusing, or controversial statements from class or readings, written on the left side of a notebook. On the right side, reactions are written freely without constraint and are shared only with the instructor for content.

The Voices assignment uses a modified form of role-playing and allows students to respond to multiple views of an assigned reading. Possible voices could come from a CEO, factory operator, buyer, designer, merchantiser, or foreign contractor. It encourages multi-vocality and reduces the risks associated with reacting to controversial readings.

Mini-cases were suggested as a semi-formal writing assignment that would develop students' abstract reasoning skills using concrete examples from the field. Advice formats such as Dear Abby or a letter to the editor de-centers the students' thinking, encouraging them to see issues from an applied perspective.

A selected data mini paper was suggested to help students learn to make judgments based on raw data, find patterns, and draw conclusions. Ideas included store expansion, trend analysis, consumer complaints or return information, key points from 3-5 related articles, or design criteria.

Kim K. P. Johnson concluded the session, noting that one of the ways to make evaluation easier is to write detailed and clear assignments. She shared a variety of questions that instructors can use to evaluate the writing assignment itself. These questions included the following: Did you define the target audience? Does the assignment fit the level of the course? Was the type of writing you want specified? Did you share your objectives for the assignment? Have you specified parameters for confidentiality? Have you stated what thinking/writing skills are to be gained through the assignment? Are procedures clear to students? Have you written the assignment yourself? Reviewed the tone of the assignment? Reviewed what type of learning your assignment promotes? Shared how you will evaluate the assignment? Thought about how much direction versus creativity should be given for the assignment?

Johnson noted that one of the biggest concerns with introducing writing is who is
going to do the evaluation. One of the first recommendations made was to do some form of peer evaluation. Get students involved in evaluating each other's work and writing improves! There are two basic types of evaluation that instructors can provide students. One type is criterion-based and the other is reader-based evaluation. Criterion-based evaluation is the type that most instructors are used to providing and is especially suited for formal writing. The evaluation is focused on the quality of the content of the writing. Questions that are useful for guiding this type of evaluation include: Is the basic idea good? Is it supported by logical reasoning? Is it supported by evidence? Is it well organized? How effective is the language? This type of evaluation is useful for instructors who must comment on many pieces of writing in a short time.

Reader-based evaluation is also helpful to authors and is associated with informal writing but is also useful for formal writing. It is the type of evaluation that students could provide each other. Questions that are useful for guiding this type of evaluation include: What was happening to you while you were reading? Excited? Bored? Interested? Where did you have trouble understanding? Who is the author writing to? What is the tone of the writing? Friendly? Hostile? One of the virtues of reader-based evaluation is that it is less evaluative. Feedback is directed at what the words are doing rather than how good the words are. It also leads to the fastest way to improve your writing. Johnson concluded that evaluation can be made easier on instructors by using peer evaluation, tying amount of grading to expected effort put into writing, working a revision of the writing into a major writing assignment, and giving students the evaluation form with the assignment. You can also work on developing an evaluation form with the students so they set criteria for what a good paper/assignment should look like.

TEXTILE HANDCRAFT GUILD PARTICIPATION: A CONDUIT TO SUCCESSFUL AGING

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The purpose of this study was to explore inductively older women's involvement in textile handcraft guilds as a conduit for (a) the interaction among textiles and their producers and (b) successful aging. Researchers investigated the attitudes and emotions of individuals involved in handcraft production within the guild structure. Two areas of scholarly literature provided conceptual insights from which the study was launched: (a) symbolic dimensions of material objects were examined and (b) issues salient to the process of aging were reviewed.

For the purpose of data collection and the development of grounded theory, qualitative methods were utilized. Purposively selected interview informants consisted of 30 women representing 15 textile handcraft guilds and 8 different textile crafts. The interview schedule focused on the goals of women involved in the teaching, learning, and sharing of textile handcrafts both at the individual and guild level. Analysis procedures included constant comparative methods for coding and interpreting data.

Initial analysis revealed that the data split into two distinct themes: "Craft as I," components that were realized by the self, and "Guild as We," components that required the recurrent involvement of other individuals to be realized. Within these two superordinate themes emerged five minor themes: Process, Product, and Continuation within the Craft theme and For Self and For Self and Others under the Guild theme.

The themes and minor themes provided insight into why the women participated in their craft and the benefits the women received through guild membership. The women shared the importance they placed on their craft production and how the guild functioned to fulfill their goals of craft in their lives and promote successful aging. From this information a grounded theory and model of guild membership emerged.

THE COMMUNICATIVE VALUE OF APPEARANCE IN AFRICAN AMERICAN FEMALE SLAVE NARRATIVES

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African Americans have an interest in their cultural roots and ethnic heritage that may be explored by studying historical images of African Americans' relation to appearance. The purpose of this research was to use appearance
factors (dress and the body) in slave narratives written by African American women to identify themes about African American appearance. Semiotics (the study of signs and symbols) was used as a theoretical framework for the study. Content analysis and Barthes' Written Garment Analysis were used to collect data from a purposive sample of 10 slave narratives. Three judges coded the extracted references to establish themes.

Findings included three superordinate categories: Status, Physical Well-Being, and Psychological Well-Being. The Barthes' analysis resulted in the binary themes: purity/impurity, sadness/cheerfulness, comfortable/uncomfortable, utilities/luxuries, conspicuous/inconspicuous, poverty/wealth, and descriptors of slave dress.

Two theoretical models emerged from the research. The importance of this project is the models for understanding the meaning of appearance and its cultural significance for slave appearance. The findings from this study are just a small segment of the possible information that can be gained about African American appearance from slave narratives and writings of African Americans.

CULTURE AND MEANING

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Because these papers are so different, I concentrated on methodology. All three researchers used social science methods to study minority populations. Two are qualitative while the third is quantitative. Of the three researchers, only Eulanda Sanders is a member of the culture she is studying. Does membership as an "insider" in a culture provide greater insight? Conversely, are "outsiders" more objective?

The Hispanic shopping paper employed questionnaires. Data were analyzed statistically. The authors selected a location inhabited mainly by Cubans and Puerto Ricans. Because Hispanic culture varies greatly, the conclusions would have been more useful if the study had been replicated in other communities across the United States with high concentrations of Hispanics.

The handcrafts paper uses grounded theory to investigate the meaning of textile handicrafts made by aging women. Lengthy interviews with 30 women in craft guilds yielded richly detailed data. Thirty respondents is an acceptable number for a qualitative study. The authors do not define what they mean by an aging woman. Respondents ranged in age from 20 to 89. The authors provide justification for including young respondents, but such inclusion does skew the sample.

The paper on the appearance of slave women used published memoirs and diaries. The method devised to extract the data aims for replicability. Sanders and her advisor read the memoirs and diaries to extract word clusters which were then verified by others to achieve triangulation. Both content analysis and Barthes' system for analyzing written garments were used. The involvement of an advisor and three judges dilutes Sanders' perspective as an insider. The same sources might have resulted in a different interpretation in the hands of a historian, for example Helen Bradley Foster who wrote "New Raiments of Self": African American Clothing in the Antebellum South.

All three papers represent significant research by new scholars. As a group, they further our understanding of how to investigate questions of culture and meaning in clothing and textiles.

AN INTRA-INDUSTRY TRADE ANALYSIS OF APPAREL BETWEEN THE UNITED STATES AND MERCOSUR

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With implementation of NAFTA in 1994, and its success in expanding North American trade, many trade policy makers are considering the next step—expansion. This expansion will more than likely involve the addition of new members to NAFTA, probably one or more of the South American countries. Little research has been conducted to investigate the significance of these countries in regard to trade with the United States.

The purpose of this paper was to estimate the levels of intra-industry trade between the United States and the countries in the Southern Common Market (MERCOSUR) trading block which became effective, December 31, 1995. These countries include Argentina, Brazil, Paraguay, and Uruguay. Intra-industry trade measures the amount of simultaneous importing and exporting of a product between two countries. Past studies indicate that high levels of intra-industry trade result in easier adjustment to trade patterns than do low levels of intra-industry trade.
This study uses the Grubel and Lloyd's (1971) intra-industry trade model to measure the amount of intra-industry trade between the United States and MERCOSUR for SITC categories 841-846 in 1997.

The intra-industry trade levels were between 0 and 88.31. Argentina and Brazil typically had higher levels of intra-industry trade with the United States than Paraguay and Uruguay. Therefore, Paraguay and Uruguay would have higher levels of adjustment than Argentina and Brazil if any of these countries were to become members of NAFTA.


CZECH APPAREL MANUFACTURING: FROM PRODUCTION TO MARKET DRIVEN

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The transformation of the Czech apparel industry from centrally planned and production driven to market driven presents a unique and extreme case of change in apparel manufacturing. This research analyzed the transition of Czech apparel firms from 1992 to present and was guided by the economic theory of comparative advantages. A case study research method was used as managers from three Czech, formerly state-owned, apparel firms, JITEX, KRAS-HAKA, and OP-PROSTEJOV, were interviewed in 1992, 1993, 1995, and 1998. Additional interviews and documents from competing firms, Centro-tex (a Czech export trading firm), and the Czech Statistical Office helped set the context for the findings.

All firms were focused on export markets to the West in 1992 and 1993 while wages for labor were lower than the West. Contracts for assembly (inward processing trade or IPT) were used for base profits without fabric investment requirements. As labor costs rose in 1995, the comparative advantage for exports diminished and contracts for inward processing trade were less profitable. By 1995, JITEX and KRAS had refocused on domestic markets while OP continued to pursue new Western markets. All firms were developing trade names and market niches that would distinguish their products in domestic and foreign markets. Technology was being purchased selectively to add value to products (e.g., embroidery) and to increase production efficiency and communication capabilities. The central location of the Czech for production and distribution as a comparative advantage was outweighed by other factors.

A market driven apparel industry is evolving in the Czech Republic. Comparative advantages are shifting from low cost labor to specialized products based on technology advances and market niches.

RETAILING IN CHINA: SITUATION ASSESSMENT AND ENTRY STRATEGY

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China's current retailing markets were studied using a case study approach of three transnational retailers' operations in Shanghai. Interviews on different retailing concept retailers' marketing strategies were analyzed in conjunction with an assessment of China's retailing situation in terms of characteristics of consumer base, retail infrastructure, government policies, and implementation of retail concepts.

The findings of this research indicate that, although China's retailing industry has shown success with a rapid increase of retail sales since 1992, when China's retailing sector was partially opened, consumer spending power has not increased proportionately. However, China's present retail market conditions foster each retail concept differently. The joint venture department store initially positioned at the high end of the market plans to expand to the lower end supermarkets due to intense competition, unfavorable government policy, and an insufficient consumer base for higher priced merchandise. Most of China's consumers are still value-oriented.

The new concept of wholesale club warehouse supermarkets shows a promising future because it fulfills both consumers' and small retailers' desires for easy, efficient purchasing and low-priced, good quality merchandise. These are features which China's retailing system lacked for many years. The vertically integrated specialty store is another successful concept because it provides its own design, production, and distribution, thus supplying most of the apparel to its own retail network. The research indicates that the right market strategies for each retail format holds promise for international retailers.
SILK WEAVING IN ISSAN: REVISITED

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In 1985 the Appropriate Technology Association (ATA) launched the Local Weaving Development Project currently centered in the northeastern town of Kaset Wisai, Thailand. Initially the weaving project worked with a handful of women to help enhance the marketability of silk products with improvements in local weaving and dyeing techniques. Since that time, several other Non-Governmental Organizations (NGOs) have joined ATA to promote silk weaving as a means of economic and social development. Silk weaving was considered to be a natural base for addressing development issues because of its social and environmental relevance to the people of this region. Using traditional skills and local resources, women could supplement family incomes and contribute to community initiatives. This particular project was documented in a video, "Silk Weaving in Issan," produced in 1992. This award winning video was funded by CUSO Manitoba, Global Grassroutes, the Manitoba Council for International Cooperation, and the Canadian International Development Agency.

The purpose of this study was to revisit this project some 12 years after its initiation and to identify the strengths and weaknesses, which have become apparent from its inception to the present. It was hoped that this knowledge would aid those engaged in sustainable economic development to build on the successes and avoid the problems which have arisen in the community because of the institution of this project. It was also hoped that it could be demonstrated that traditional textile skills could be used as a vehicle for community development.

CULTURAL DIVERSITY, COSTUMES AND COMPUTERS

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Internet-based multimedia systems have the capacity to change the teaching-learning paradigm as they allow for active learning. This project was designed to promote active learning and cultural understanding by applying advanced computer applications to the study of culture through an analysis of costume. The project focuses on the University of Hawaii's College of Tropical Agriculture and Human Resources (CTAHR) Historic Costume Collection, which has the largest collection of ethnographic dress in an American university.

Segments of this collection are now available to the world through the website. Students do both coursework and research with the web-based materials. They have greater access via passwords for specific data sets prepared for each class. As they encounter both text and images, a variety of cues give students greater feedback and mastery of instructional materials as they control their own learning. The student's favorite links on the web page are our annual costume exhibits.

After accessing our accession records, students can obtain a great variety of data on each garment, such as the origin, designer, fiber, and date of use. Searches may be conducted as well. Through our creation of a cultural database that is integrated with other files, students learn about textiles and clothing within a socio-cultural and historical context. While the data is on the computer monitor, students may simultaneously view the garment and do so without having to handle the garment. In sum, this system promotes active learning with multicultural resources while protecting and prolonging the useful life of the CTAHR Historic Costume Collection.

CULTURAL DIVERSITY VIA THE WEB

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Communication is the most universal aspect of clothing. Information about cultural meanings, economic status, social roles, status, group affiliation, personal identity, lifestyle, values, attitudes, and moods are transmitted through dress. Students in a social psychology of clothing course had an opportunity to conduct an on-line investigation of the cultural meanings associated with dress and clothing behaviors. The purpose of the project was to develop an awareness of the influences of culture in dress, to identify the visual images identifying specific cultural values, and recognize symbolic associations characterized by clothing behaviors.

Students were required to utilize the World Wide Web to access information on clothing behaviors of a selected cultural group. Information including descriptions, illustra-
tions, and symbolic meanings of clothing items, as well as influences on current fashions and the cultural diffusion process were included in the written analysis and oral presentation.

The instructor demonstrated the use of the computer and located several search engines to assist in beginning the project. The results were overwhelmingly positive. The students indicated that they enjoyed studying cultural groups on-line. More current information was available and many more visuals were obtainable on the Web.

The discussion of the project was especially beneficial since it included every aspect of information previously covered in the course.

CONTINGENT SOUVENIRS: REFLECTIONS ON T-SHIRTS FROM THE GAY AND LESBIAN HISTORICAL SOCIETY OF SAN FRANCISCO

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What gets to stand in for history becomes a question interesting to clothing theorists involved in historical retrieval, archiving, and research. The prioritization of garments preserved privileges those used for rituals, worn by public figures, or ones which demonstrate a brand of craftsmanship typically understood to be artisan; everyday wear, in contrast, tends to be undervalued. This devaluation is especially problematic for marginalized communities, who often have minimal resources to collect, preserve, and maintain their "history."

This project takes as its topic everyday souvenirs—T-shirts—catalogued at the Gay and Lesbian Historical Society of San Francisco. Using a grounded theory approach to guide the analysis of several "case study" T-shirts, this project seeks to contribute to the field of studies which understand everyday wear to be a key component of understanding community identities in the context of local contingencies. This research extends previous work on lesbian and gay style (Freitas, Kaiser, & Hammidi, 1996) by shedding light on the ambivalent interplay between community and commercial interests.

It also provides implications for decision making relative to the archival documentation and representation of textiles and everyday wear in community and larger societal contexts.


FASHION AND THE SPIRIT OF RESISTANCE: THE CASE OF CATHOLIC WOMEN RELIGIOUS

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This study examines how dress has played a critical and visible role in reflecting and helping to construct social and personal identities of Roman Catholic women religious (nuns). This research is significant because it provides a model for examining how changes in enduring modes of dress such as habits can be examined not only in relation to the more predominantly held view of changing social roles but also from the perspective of personal identity. Theoretical foundation of this study includes the anthropological research of Jean Comaroff (1985) on the Tshidi people of South Africa. Comaroff examined the manner in which symbolic "schemes" (for example, dress) mediate structure and practice.

The 26 women who participated in this study are members of non-cloistered orders in western Massachusetts, U.S.A., who wore habits but adopted secular dress in the 1960s and 1970s after Vatican II. One hour, open-ended, and transcribed interviews on their experience of exchanging religious habit for secular dress have allowed me to examine social and psychological implications of this event from a personal perspective rather than examining this issue as a strictly social phenomenon.

Findings indicate that the women religious used dress in their politics of resistance within the Catholic church and yet remained members of religious orders. They emerged from their symbolic socialization into the Church via their habits to the mediation of their social and personal identity through use of fashion. Their ability to appropriate fashions of the secular world symbolically indicated their ability to mediate between the demands of fitting into a consumer society and their vow of poverty.

THE MISSING VOICE: GARMENT LABORERS' SUBJECTIVITIES

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Garment industry labor has been and is primarily supplied by traditionally underrepresented immigrant, minority, and/or working class women who have also been conceptualized as "semi-skilled" or "unskilled" labor. Previous research has primarily analyzed these workers in polar terms of tense dichotomies: productivity and profitability vs. working conditions and wage inequities. Additionally, social analyses have often interpreted the experience of the working class to be one of "alienation" toward the production process as well as the product itself (Bonacich, 1991, p. 165). Whether alienation is interpreted as the abiding subjectivity (i.e., voice, perspective, standpoint of garment workers), or labor is theorized only as an abstraction, perspectives on labor are frequently made for or imposed on workers. However, little if anything has been heard from the workers themselves in regard to their relationships with the products of their hands.

Using a grounded theory approach, the present study incorporated qualitative methods of intensive observation and interviews with garment laborers in several different production environments in an effort to hear their "voices" regarding the products that they create. Various themes are emerging in relationship to the creation of the product including pride and frustration, as well as ethnic, cultural, and gendered identity. These themes are often manifested through feelings about collective or collaborative effort and through purchasing and wearing the products which were made. Age, experience, education, and proficiency of the worker are also reflected in attitudes toward or identity with the products.


ADVERTISING AS A MIRROR OF THE REALITY IN POSTMODERN CONSUMER CULTURE

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The main focus of this study is to understand realities of postmodern consumer culture by deconstructing Calvin Klein's cK one and cK be fashion advertisements. The metaphysics of critical theory, visual, and textual analysis are used to deconstruct Calvin Klein's fashion ads applying one of the postmodern cultural critic, Baudrillard's (1988) notion of hyperreality.

Through deconstructing the ads five postmodern characteristics representing hyperreality were found. First, there is no message regarding functional characteristics of the product offered in the ad, which is far from the modernist's utilitarian point of view. Second, especially for cK be, the ad uses atypical, irrelevant models and images which are introduced as a concept of "real people" rather than the ideal person or body type. Third, there are transformations of the meanings from cK one to cK be such as the notions of globalization and gender which clearly represent ongoing reality in the postmodern culture. Fourth, there are hidden meanings of hedonism and relativism which are prevalent in postmodernist ideology. Finally, models’ bodies are used to convey messages as well as form the ground and figure in the ad.

In the study, hyperreality in postmodern consumer culture is found to be consumption centered and focuses not on the products’ utilitarian characteristics but on the product’s symbolic meanings. In conclusion, the study of Calvin Klein’s fashion ads supports the notion that advertising mirrors reality which is hyperreality.

APPAREL MANUFACTURERS' PROMOTIONAL SUPPORT

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Considering the situation in which retailers have gained higher power over apparel manufacturers (ZuHone & Morganosky, 1995), apparel manufacturers must provide services such as promotional support (PS) to obtain retailers' satisfaction within the trading relationship, and the provisions should be built on the basis of understanding retail customers' needs. Accordingly, the needs of retail buyers for PS are hypothesized to differ across price and fashion orientation of retail organizations. The purpose of this study was to examine the
reinforces the significant power of apparel in communication.

There is evidence to support the notion that the quality and image of certain products is associated with the style of apparel presented in related advertisements. The study which explored the role of manufacturer promotional support for apparel product retailing suggests the greater need for more for fashion-forward merchandise, which must be adopted by consumers in order to make the fashions viable.

INCORPORATING JDT21 INTO THE CLASSROOM

Diana Cone, Georgia Southern Univ., Statesboro, GA 30460

Apparel design and manufacturing students at a regional university in the southeast are required to take an Introductory Manufacturing course. In this first manufacturing course the students develop a simulated company based on the Junior Achievement concept. This company is called Southern Enterprises. The students elect officers for each division, sell stock, develop a product, manufacture the product, sell the product, and declare dividends at the end of the term.

An additional component was added to the course last quarter which introduced the students to JDT21. This Just-in-Time Dispatching and Tracking System for the 21st Century is a software tool designed by South Carolina Research Authority (SCRA) to help small to medium-sized sewn products manufacturers optimize the processing of factory orders. The purpose of the project was to test JDT21 in Southern Enterprises and provide students with hands-on exposure to modern technology.

The students indicated that they preferred this real-world hands-on activity to merely learning about the concepts. Overall, the students were highly motivated to learning the program, worked well as a group, and put a lot of time and energy into the project. As a class, the students indicated a number of limitations to using JDT21 in the simulated company. The major dissatisfaction of the software was the lack of flexibility in the program. A limited number of spaces were available to describe operations or materials. In addition, the columns and cell categories could not be changed. As a result, users could not print the entire report on one page for easy reference.

Integrating this software component into the simulated company was beneficial in providing a real-world model to the students. Modifications will be made to the program before it is used again to facilitate ease in use.

TEXTILE SOURCES: A WORLD-WIDE ADVENTURE

Cindy Martin, Georgia Southern Univ., Statesboro, GA 30460

Students in Introductory Textiles identified and contacted world-wide textile sources by selecting a topic to research through the Internet.

The objective of this assignment was two-fold in that the students were to learn different ways to locate textile information on the Internet and were to analyze and organize this information into a visual as well as a written presentation.

This portfolio assignment was presented in three stages. The first assignment was introduced by a research librarian who prepared an Internet introduction geared specifically to textile sourcing. The students learned how to search the Internet and how to recognize reliable sources. Also included were sources such as manufacturing directories and business catalogs that were available in print.

The second component included the development of a directory of addresses and representative printed pages of 10 specific textile topics identified by the instructor.

The final component of this assignment was the development of a story-board with information and samples received from sources researched on the Internet. The students were asked to make the story-board as visually eye-catching as possible but also to include a separate summary of factual information and a bibliography including Internet addresses.

All of the students received information and/or samples from the sources that they contacted. The instructor was excited about the variety of innovative sources and the professional manner in which the students contacted the industries. A redesign of the evaluation sheet will emphasize the interrelationship between the visual presentation and the written presentation.
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WEB SITES FOR IMPROVING PRODUCT QUALITY

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Students rely on the web as a source of information because it provides easy access to current information. A list of sites, suggested applications, and a means of evaluating a site's content would provide faculty with useful information related to assuring product quality and applicable to such courses as beginning and advanced textile science, textile testing, quality assurance, product development, fit analysis, sewn products analysis, draping, and flat pattern. Sifting through sites can be time consuming because few provide pertinent information.

We used Yahoo, Alta Vista, and Web Crawler and these key words: quality, quality & apparel, quality & manufacturing, quality assurance, quality inspection, and quality control. We also used such textile and apparel industry leaders as Levi, Cone Mills, and Avondale Mills. We evaluated sites for such organizations as American Society for Quality and International Standards Organization. Finally, we searched commercial testing lab sites listed in the 1997 ASTM International Directory of Testing Laboratories.

Although many company web sites would be of little use for students unless they are exploring issues related to textile marketing, others could be quite helpful. The JC Penney site includes a tour of their product evaluation lab and provides answers to frequently asked questions (FAQs). FabricLinks provides fiber information and answers to FAQs. These sites would help students understand the importance of materials to product development and product performance. Also, since most sites provide an opportunity to ask questions, students could use the web to interview companies, ask questions about materials, or get more information about a firm's specific testing procedures. Other sites provide information on sizing, fit, and construction standards.

WORD PROCESSING PROGRAM AS APPAREL CAD TOOL

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Students enrolled in design courses tend to perform computer skills either very well or very poorly, laboring with each new concept. Since the Apparel CAD Lab was being renovated, the drawing components of Microsoft Word and WordPerfect computer word processing programs were used as tools to teach Computer-Aided Apparel Design.

To increase the students' interest in apparel design, a principal fabric pattern computer design exercise, a T-shirt logo design, and flat sketch apparel projects were assigned. The purposes of the assignments were to (1) offer the background knowledge of using a computer design program as a learning experience and (2) inspire students to use available resources to develop creative and innovative designs. A ten-work-station general use computer lab with the two word processing programs was used to teach and demonstrate assignments. The six students enrolled in this beginning design class had no apparel computer-aided design experience. All students had clothing construction and flat pattern courses.

All assignments were saved on a floppy disk and turned into the instructor. All assignments were printed with a laser printer and discussed in the class. Students learned from their own experience and from that of other classmates. Successful results were found by evaluating the various projects and different prints. The T-shirt design was mass produced and sold on the campus. Even without an expensive CAD computer system, faculty can incorporate computer-drawing skills into existing design curricula by using general use word processing programs.

AN INVESTIGATION OF CONSUMER INTEREST IN CO-DESIGN FOR MASS CUSTOMIZATION OF APPAREL

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Emerging technologies like computer-aided design (CAD), body scanning, and intelligent systems are converging to allow consumers to become part of the design process. This study investigated consumers' comfort, satisfaction, and ease of use of a CAD supported scenario of co-design. A design manager manipulated the CAD program which was developed using Snapfashun® and Micrografx®.
The convenience sample was comprised of 35 students from the School of Human Sciences and the College of Business. Participants completed a pre-questionnaire, worked with the design manager to design an outfit appropriate for a job interview and filled out a post-questionnaire.

Overall subjects had a moderate score on computer use with business students indicating a higher computer use and greater enjoyment. Average time to complete a co-design session was 16 minutes and 28 seconds. All subjects in the study were comfortable with the co-design process and interested in co-designing apparel if such a program were available. Based on the images created, 64.8% would place an order.

A majority of the subjects (88.3%) felt that it was easy to make design decisions. There were no significant correlations between innovativeness or consumer involvement and ease, comfort, and satisfaction with the co-design process. However, significant correlations did exist in sub-scales for each measure. For human sciences subjects data indicated positive correlations between ease and comfort (r=0.561), ease and satisfaction (r=0.541) and between comfort and satisfaction (r=0.549).

PROFILING CONSUMER INTEREST IN MASS CUSTOMIZATION

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The purpose of this research was to pilot test a questionnaire used to identify and understand consumers' interest in various levels and options of mass customization of apparel. Concepts were assessed with a survey based on scenarios defining consumer interest in mass customization of apparel including expanded search/selection, personal advisors, smart cards, and custom clothing. A convenience sample of 209 participants was drawn from two universities. The following variables emerged as significant in profiling consumers interested in each of the scenarios:

Scenario I (On-line access)—more frequent shopping at specialty stores, more enjoyment from shopping, more enjoyment from clothing, and higher levels of novelty seeking.

Scenario II (Interactive personal advisor)—more frequent shopping at specialty stores, more enjoyment from shopping, more enjoyment from clothing, more frequent use of computers, more enjoyment from computer use, and higher levels of novelty seeking.

Scenario III (Smart card usage)—more frequent shopping at specialty stores, more enjoyment from shopping, more enjoyment from clothing, more frequent use of computers, more enjoyment from computer use, and higher levels of novelty seeking.

Scenario IV (Designing own clothing)—more enjoyment from shopping, more enjoyment from clothing, more enjoyment of computer use, higher levels of novelty seeking.

TEENS' PERCEPTIONS OF CUSTOMER SERVICE: A QUALITATIVE ANALYSIS

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The purpose of this qualitative study was to determine teens’ shopping patterns and perceptions of customer service in retail stores. A secondary purpose was to identify the usefulness of the SERVQUAL instrument in future quantitative analysis with teens (Parasuraman, Zeithaml, & Berry, 1988).

Focus group interviews (n=6) were conducted using students from intact classrooms in a rural southwest high school. Each focus group consisted of seven to ten students and lasted approximately 45 minutes. Responses obtained during the focus group sessions were analyzed and coded. Eight open-ended questions were addressed.

Participants were females (n=34) and males (n=19). The majority were Caucasian (n=45), ranging in age from 14 to 18. Specialty-chain stores and department stores in regional malls were the preferred retail formats. The majority of the participants indicated they visited the mall at least once a week and spent their money primarily on apparel-related items. Teens revealed that sales associates’ behaviors and tangibles were the most desired service elements. Further, teens indicated service quality varied according to their appearance and with whom they shopped.

Teens are savvy consumers who understand the concept of customer service. Sales associates’ behaviors and tangibles within a store were important to teens when evaluating service quality. These areas have been identified as dimensions of SERVQUAL; therefore,
it appears that this instrument would be appropriate for future use with the teen market.


THE IMPORTANCE OF CUSTOMER SERVICES: IMPRESSIONS OF MATURE APPAREL CONSUMERS

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In order to develop a quality service strategy, a better understanding of the target markets' needs is essential. The mature apparel consumer, a large and rapidly growing market segment, deserves greater attention than in the past. Therefore, the intent of this study was to assess mature apparel consumers' perceptions of the importance of various customer services through a descriptive survey design.

A total of 100 mature consumers in Texas, or 21.91% of the sample, responded to a self-administered questionnaire with a 23-item Likert scale measuring the importance of various retail services. Mature apparel consumers believed all 23 services were moderately to very important with mean values varying from 4.08 to 6.82 out of a range of 1.0 to 7.0 with "7" indicating the highest level of importance. Items considered most important included ability to return unsatisfactory products (6.82), product quality (6.79), availability of advertised products (6.53), and readable labels/tags on products (6.53). Items considered least important included small store (4.08), delivery (4.38), and package carry out (4.39).

Apparel retailers and educators of students in apparel-related fields must recognize the importance that is being placed on customer services by mature consumers. A fundamental understanding of the most important services should be encouraged as retailers adjust their retail environment and plan their service strategy. The apparel retailer's ability to respond to the needs of the mature market segment may give them a competitive edge.

A COMPARATIVE STUDY OF BUYING MOTIVATIONS AND EVALUATIVE CRITERIA FOR IMPORTED AND DOMESTIC CLOTHING AMONG KOREAN WOMEN

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The purpose of this study was to identify differences that might exist between married women's buying motivations and evaluative criteria for imported and domestic clothing and to test the role of socioeconomic variables on those differences. Sample selection criteria included married women living in Seoul, Korea, between the ages 30-59. A purposive sample was obtained to secure respondents with experience with imported apparel. Of 400 distributed, 246 usable questionnaires were returned. Statistical analysis of results included factor analysis, paired t-tests, and one-way ANOVA.

For both imported and domestic clothing, the most important buying motivation was utilitarian, with quality the most important consideration. Purchases of domestic clothing were more influenced by factors such as advertisements, economics, impulse buying, approval of others, and current fashionability of style than were the purchases of imported clothing. Purchases of imported clothing were more influenced by factors such as prestige and utilitarian value than were purchases of domestic clothing. Regarding the influence of socioeconomic variables on buying motivations, only age appeared as a significant variable for domestic clothing whereas age, education, income, and subject's employment status appeared as significant variables for imported clothing.

Purchasers of both imported and domestic clothing considered appearance as the most important evaluative criterion; approval of others and their recommendation were the least important criteria. Socioeconomic variables influenced domestic clothing evaluative criteria while they did not influence imported clothing. Among socioeconomic variables, income, and spouse's occupation appeared to be significant.

The results suggest the appropriateness of different marketing strategies for imported clothing and domestic clothing.
COUNTRY OF ORIGIN OF APPAREL: A TREND ANALYSIS OF JAPANESE WOMEN

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Specific country-of-origin preferences suggest consumers may hold higher quality images of apparel manufactured in some countries over others (Wall & Heslop, 1989). This trend analysis (1988-1997) examined apparel identified as most fashionable, best quality, and highest status by country of origin to determine if perceptions change over time.

Method: The 1988 (n = 143) and 1997 (n = 126) samples included women at three and two Japanese universities respectively. Chi-square tests compared their perceptions of apparel on three criteria: (1) most fashionable, (2) best quality, and (3) highest status for eight countries: China, Japan, Hong Kong, USA, Korea, Taiwan, France, and Italy.

Findings: Nearly all students perceived garments from China, Hong Kong, Korea, and Taiwan as not meeting any of the criteria; they were eliminated from further analysis. Regardless of year, most women perceived France as most fashionable, Japan as best quality, and France as highest status. Chi-square tests were not significant.

Conclusions and Implications: These women retained consistent perceptions of apparel as most fashionable, best quality, and highest status by country of origin. Apparel country of origin retains a strong image over time, a benefit to countries with high images but a detriment to countries with low images.

price is an unidimensional or a multidimensional cue and if there are differences in their price perception between two cultures. Data were collected through a self-report questionnaire administered to female college students in both countries (n = 183 for Saudi Arabian; n = 113 for Korean).

To test the cross-cultural equivalence of scales, we first examined the existence of the dimensions of price cues in each sample studied. A confirmatory factor analysis showed that the model with six factors provided a good fit for both samples (Saudi Arabian sample, \( \chi^2 = 173.22, \) d.f. = 120, GFI = .91; Korean sample, \( \chi^2 = 166.64, \) d.f. = 120, GFI = .87). The scales were purified by removing items with low standardized factor loadings or large standardized residuals. Then a two-group model was developed and tested using LISREL VIII. Limitations and implications for future cross-cultural research are discussed.

COLLABORATIVE TEACHING BETWEEN UNIVERSITIES USING INTERNET CLASSROOM ASSISTANT

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The purpose of this project was to provide students with additional insights into merchandising and display activities by collaborating between classes at two universities located in different regions of the United States. Additionally, this collaboration provided students with development of telecommunication skills, along with development of computer technology skills.

Communication between the two classes was organized and implemented via the Internet Classroom Assistant provided by Nicenet, through The Searle Center for Teaching Excellence. This creative teaching component involved the design and setup of one course project, co-administered by the two faculty instructors. Students enrolled in the class project from both university campuses.

Students were aware that it was a newly developed internet site and that they would be asked to give feedback as to the effectiveness of the teaching methodology. After some initial struggle with getting students comfortable with the electronic system of communicating, the project was most effective. Students were interested in what the other groups were doing and in determining what things were similar between a large, metropolitan versus a small, rural community. Another positive outcome of the project, was the additional peer pressure of developing a well-organized and effective project.

COMMUNICATING THROUGH COMPUTERS: PRESENTING A POWERFUL IMAGE

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Human nature dictates that we aspire to be judged by others in a positive light for our personal appearance, communication skills, and/or personality. First impressions play a very important part in the professional and social interactions between individuals. In our professional and personal relationships, most of us try to put our best foot forward and make a positive first impression in order to appear credible, competent, and trustworthy. With the increased use of telecommunication technologies in academic settings and business environments, we are more likely to have relationships with people we may never have the opportunity to meet in person. To identify these first cyberspace impressions, the authors interviewed people in information systems management, university researchers and professors, students, and business people. This paper describes methods of communicating through computer technology, a review of literature related to communication theory, the results of the interviews, and strategies for making a positive impression upon those individuals with whom we interact in cyberspace.

DEVELOPING A COMPUTER-BASED DISTANCE EDUCATION COURSE USING INSTRUCTIONAL DESIGN SOFTWARE

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Working through the administrative maze to develop a distance-based course can be a daunting task without worrying about how to develop a new distance education course. The purpose of this paper was to show the kinds of help instructors have access to by using
instructional design software. Although instructional design software can be used for traditional courses, emphasis is given to differences between designing a traditional course versus designing a distance-based course.

Information explained includes:
1. Analyzing participant needs—defining your audience will ensure that you are choosing the right delivery technology.
2. Writing objectives—every course requires instructional objectives, yet making sure these objectives fit the audience and can be met through distance learning has different considerations.
3. Analyzing and outlining course content based on delivery systems. Discussion includes whether to use video, live television, or computer-based delivery systems.
4. Selecting learner activities—instructional design software is helpful in introducing learner activities you may never have given thought to.
5. Writing detailed script-storyboards—is essential in delivering a distance-based course. This extra planning helps a new distance instructor overcome many fears.
6. Producing media
7. Course evaluation—This step ensures you can evaluate course effectiveness.

WEB 101: GETTING YOUR COURSE ON THE INTERNET

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This presentation introduces the mechanics of getting a course on the World Wide Web. During the 1997-98 academic year, I became a Technology Fellow at my university. As a fellow, I put my spring seminar course on the web. Two choices were available for creating a course web page: (1) Claris Home Page, which could be accessed through the "Virtual Courses" list located on the university's home page, or (2) Web CT, an easy-to-use package adopted by the university. The pre-formatted structure of Web CT would have been easier to learn, but I chose Claris Home Page because it allowed the page to be accessed by the world instead of just URI.

The spring seminar focuses on a current theme in the textile and apparel industry. Outside speakers address various aspects of the theme. In 1998 the theme was the active sportswear industry. In constructing the web page, I went beyond simply putting my syl-labus up on the web. I engaged the students in its creation. The basic structure of the web site was as follows: "home page," "course description," "about the active sportswear industry," "schedule of speakers," summaries of speaker presentations," "the students," and "the instructor."

I used a digital camera to take pictures of students and myself which were then installed on the web page. Through an "annotated bibliography" assignment, students recommended appropriate web sites to link to our page. Each week a student summary was posted to the page. Appropriate hotlinks and scanned visuals were included. Abstracts of student papers were added.

The web site component introduced students to web searching, encouraged students to write well so their summary would be selected for the web, and gave all students ownership of a web site dedicated to their course and their major. It gave the department positive exposure as well. The challenges included additional time needed to learn the software program, frustrations with using the digital camera, and acquiring appropriate graphics.

PRODUCT DEVELOPMENT FOR THE GLOBAL FASHION INDUSTRY

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Course description: The course gives an overview of the global environment for product development. Students explore the concept of fashion as a lifestyle and complete a major project that simulates the product development process.

Teaching techniques: A combination of lectures, guest speakers, and in-class and studio work provide a diverse learning environment. Lectures cover apparel industry processes, terms, and concepts. Guest speakers from other countries as well as industry professionals speak on subjects from the European market to the Product Development process at Nautica/Eagle's Eye. Students complete the Munsell Color book, prepare and present two current event reports, complete a comparative market report of current store trends, and research fashion trends and global sourcing on the internet. A merchandising calendar and a written description of the company, target market, and line, including an original logo, are developed. The student then develops the line
for four deliveries, including theme boards for each delivery, technical drawings, specification sheets, and sourcing details for components and production. The student presents the project to the class and a simulation of a CEO, CFO, and COO.

**Student outcomes:** Both design and marketing and management students are required to take this core course, and it is a valuable opportunity for students in each discipline to understand and appreciate the nature of these complementary fields. Graduates who have skills in both fashion design and merchandising have a competitive edge in the marketplace.

**Evaluation:** Student input is used to enhance the teaching strategy. Video tapes of the major project presentations will be added to each student's assessment file.

**INTEGRATING MANUFACTURING INTO THE APPAREL DESIGN AND MERCHANDISING CURRICULUM**

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Today the apparel industry is an integrated complex of design, manufacturing, and retailing. Manufacturers have retail stores and retailers develop and produce private label merchandise. An alumni survey confirmed that both design and merchandising graduates working in product development and production. To better prepare students for careers in these areas, a strategic plan was developed for facility and curriculum development based on the recommendations of the American Apparel Manufacturers Association Education Committee, a survey of manufacturers, and the alumni survey.

The following changes were made in the facilities: (1) the sewing room became the sewn products production laboratory; (2) the auxiliary work area became an automated cutting laboratory; (3) a computer-aided design laboratory was opened; and (4) the textile laboratory became a sewn products evaluation laboratory. These facilities provide students with a simulated production environment, in which products are designed, produced, and tested using industry equipment and methods.

The process of program and course evaluation, facility development, and curriculum development resulted in the development of an apparel curriculum model that views concept to consumer as a continuum. This continuum places the design concept at one end and the consumer at the other. In between, one finds all the processes required to move the product from an idea to a marketable reality. The model provides a means for identifying where a program is focused and to identify areas that are omitted.

**INTERNATIONAL EXPOSURE TO FASHION DESIGN: REINFORCING FASHION EDUCATION**

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The objectives of the project were to (1) expose fashion design students to many and varied techniques in draping and flat pattern making, (2) reinforce the students' manipulation, and (3) expose students to cultural diversity.

Students interested in flat pattern and draping were given the opportunity to study at the prestigious Centré de Formation de Modeliste in Paris, France. Prerequisites to applying for the two-week extensive workshop included having the basic skills in flat pattern, draping, and knowledge of fabrics. Ten students selected to participate ranged in skill level from beginners to advanced. Most of the students had already had the experience of draping and flat patterning original designs to include tailored jackets, pants, and dresses. The activities planned for two weeks included a daily lecture-demonstration on several applications using combined techniques in flat pattern and draping. The students were required to design (1) notched collar jacket with a two-piece set-in sleeve, (2) bias dress, and (3) a raglan sleeve shawl collar coat.

Students evaluated their experience in France as a positive approach to learning. Because most of the students were juniors, their newfound skills were incorporated into their final collections to be viewed in the upcoming spring fashion show. Several students used their new patterns as basic blocks to create their collections. Students were also exposed to the environment the school created for its students. Overall, the students valued their experience and were more knowledgeable about draping, flat pattern making, fit, and alterations.
PRACTICING MERCHANDISE PLANNING FOR APPAREL PRODUCTION

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The course objectives included (1) to understand the basic concepts of the strategic marketing and merchandise planning process; (2) to apply the principles and practice a merchandise planning process for apparel production; (3) to learn information-handling skills of data collection, analysis, and interpretation; and (4) to visually present the created fashion images during merchandise planning.

Major tools for the course were (1) sequential group assignments of merchandise planning for apparel production and (2) students' class presentations and discussions. The 10 steps of the assignments included (1) Marketing environment analysis, (2) Market segmentation and target market selection, (3) Understanding the target market, (4) Competitor analyses, (5) Brand launching and positioning, (6) Fashion trend analysis, (7) Seasonal merchandising and design concepts, (8) Assortment planning, (9) Marketing mix coordination, and (10) designing. For steps No. 3, 5, 7, and 8, students completed image maps of target consumer life styles, brand image, seasonal merchandise concepts by theme, and major design characteristics.

This course was fun and effective in learning basic concepts of strategic planning process for apparel production. Students were very involved through all processes. Practicing merchandise planning process would be more effective and realistic in an actual business setting. A local apparel manufacturer or a retailer will be contacted in the future, and creating a brand (or private label) for this company will be practiced based on real market information and analysis.

GENERAL EDUCATION: THE CASE FOR A COURSE ON DRESS AND CULTURE

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Having an apparel or textile course available to all undergraduates as part of their general education requirements opens the door to many opportunities for the sponsoring program. However, getting such a course accepted by the appropriate university curriculum committees is often a daunting task. The strategy utilized at one university for getting a course on the socio-cultural aspects of dress accepted for general education credit is shared with the goal of helping others to achieve a similar goal.

The criteria that such a course must meet may include the following: course must equip students with conceptual tools to place into a lifetime of meaningful perspective; it must emphasize techniques common to a discipline; it must emphasize value premises arising from issues, theories, and methodologies; it must emphasize the limits of any single discipline's approach; perspectives of respective disciplines should be identified; the methodologies of pertinent disciplines must be used; and finally, it must require a significant amount of meaningful writing.

Positive outcomes of having a course on the general education program include, but are not limited to (1) a higher level of visibility of the apparel and textile program to all students and faculty, (2) a significant increase in the production of student credit hours, (3) greater opportunities for cross-disciplinary research among faculty and students, and (4) a more stimulating course as a result of the breadth of students enrolled.

The intent of the presentation is to stimulate further discussion among ITAA members about the contribution that such a course (and others) can make to general education and to foster a network of members who can assist each other in pursuing similar goals for their academic programs.

THE USE OF ORAL HISTORY TO DOCUMENT CLOTHING CHANGES RELATED TO CULTURAL MORES

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An assignment was developed in a Clothing and Culture class to give students a deeper understanding of how clothing relates to cultural mores of modesty and how these change over time.

Each student taped an interview with a person at least 30 years older than him/herself, with the discussion focused on clothing worn by the interviewee during the present age of the student. A specific list of questions relating to modesty and dress was used. To understand procedures for conducting a taped oral history interview, a practice assignment was done in class. Three publications containing clothing or fashion information from the noted time period
were also reviewed to compare the interviewer’s information with the available fashion information.

Both taped and written responses were turned in. Class discussion and tabulation of data by date, ethnic background, and clothing-modesty response allowed sharing of similar and diverse cultural findings. Over 17 different cultural backgrounds have been shared, with clothing/modesty information from the early 1920s to the late 1960s.

Students’ responses to the assignment have been extremely positive. Taped interviews gave descriptions of actual clothing worn as well as reflected the interviewees’ feelings and attitudes, both personal and cultural. Students developed a deeper appreciation for cultural diversity and change as related to modesty and dress.

VIRTUES AND SOCIAL ISSUES APPROACH TO TEACHING SOCIAL PSYCHOLOGY OF CLOTHING

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Kaiser’s (1990) contextual framework offered the theoretical concept to understand clothing, behavior, and society within the context of 10 virtues and 10 social issues.

The research published in Clothing and Textiles Research Journal is categorized for each of the identified virtues and social issues. In-class group activities are designed to discuss research studies once a week for 10 weeks. Group debates are organized to cultivate comprehensive understanding and present controversial viewpoints with spontaneity in the critical thinking mode. Analysis of novels or story books renders detail orientation that is esteemed highly in the retail world. Midterm and written examinations are designed to test synthesizing and application abilities of the students.

Extension of this work to international retailing and cross-cultural comparison will further enrich the pool of multidimensional and multi-method teaching strategies and enhance the scope of understanding human behavior through clothing and appearance.


COLLEGE-AGE JAPANESE CONSUMERS: NON-STORE SHOPPING PRACTICES FOR CLOTHING

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Due to the difficulty of accurately targeting the second-generation Japanese baby boomers and the inconsistencies reported on the growth of the non-store retail market in Japan, the purpose of this research was to examine if college-age (17-22) Japanese consumers utilized two different forms of non-store retailing: catalogs and the Internet.

Self-administered questionnaires were completed by 212 Japanese college students, predominately female.

Frequency data suggested that 29% of the respondents have never purchased clothing through catalogs and that 61% of the respondents seldom or sometimes purchased clothing through catalogs. Catalogs served slightly more as an influencing agent when the respondents purchased clothing in retail stores.

The second form of non-store retailing examined was Internet shopping. The respondents indicated that they have never shopped for clothing using the Internet.

Information from this research suggests that non-store retailing is not readily accepted at this time by the sample of college-age Japanese consumers. However, it is vital to keep close examination on this market as retail expansion is rapidly occurring internationally and reports suggest that the Japanese may be considered a lucrative market for non-store retailing in the future.

PERCEIVED IMAGE OF STORES AND BRANDS: COMPARISON AMONG THREE ETHNIC CONSUMER GROUPS

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The purpose of this study is to determine whether three ethnic groups (White-Americans, African-Americans, and Koreans) are different in their perceived image of stores and brands. More specifically, the study will determine whether these three ethnic groups are significantly different in their perceived image of (1) social classes of selected retail stores and (2) brand attributes of selected clothing brands.

The study measured social class perception of retail stores (J.C. Penny, Wal-Mart,
Dillards, Nordstrom, and Macy's) and brand image of well-known clothing brands (Polo, Calvin Klein, Guess, Levi's, Gap, Banana Republic, Esprit, Tommy Hilfiger, Benetton). For social class perception, six social classes (upper-upper, lower-upper, upper-middle, lower-middle, upper-middle, lower-lower, and lower-lower) were used with a brief description for each class. Brand image perception was measured for six bipolar brand attributes (sexy/unsexy, contemporary/not contemporary, mature/youthful, formal/informal, feminine/masculine, and intelligent/unintelligent). Data were administered to college students enrolled in various courses at a large southwestern university. Data analyses utilized cross-tabulation for social class perception and univariate analysis of variance for brand image perception.

Social class perception variations among ethnic groups indicate the significance of positioning stores and designing marketing and communication strategies tailored to specific market segments. Perceptions of brand image variations among ethnic groups should be captured in firms' marketing efforts.

THE CHILDREN'S WEAR CUSTOMER: A QUALITATIVE ANALYSIS OF SHOPPING AND APPAREL PROBLEMS

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Given the strength of the $20 billion children's wear market, one might expect that the needs of the children's wear customer are being well met. However, are there opportunities that might permit marketers of children's apparel to better meet customer needs and provide a competitive edge? Are there issues, unique to this market, that are not addressed by research focused primarily on the adult apparel market?

A model of consumer purchase behavior (Engel, Blackwell, & Miniard, 1986) provided the framework for a study designed to obtain quantitative and qualitative responses regarding various aspects of the purchase process for children's wear, including the importance of selected evaluative criteria, store choice, and complaint behavior.

The survey was mailed to 2,000 families randomly selected from the enrollment lists for kindergartners and fourth graders in 11 school districts in one mid-western state. Each respondent was asked to answer using the youngest child as the point of reference to ensure a range of ages. A follow-up postcard, followed by a second instrument for non-respondents, was sent. Of the 953 usable surveys returned, 306 respondents included qualitative responses.

The results provided insight into the meaning underlying some of the quantitative responses. For example, the shopping problem "lack of styles that I like" could have different meanings to different respondents. In examining the qualitative responses, one respondent indicated that the available styles were "too grown up" for her daughter. Another indicated that they desired "a return to no frills, tailored, practical clothing." Similar insights arose for other variables, such as fit. These responses contributed to a more specific, or in-depth, understanding of the shopping and apparel problems encountered by the children's wear customer.


AESTHETIC CONSCIOUSNESS OF BODY AND DRESS IN CONTEMPORARY KOREA

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This study aims to show how tradition and modernity have interacted to produce the aesthetic consciousness of body and dress in contemporary Korea. For this purpose, documentary studies were proceeded. Photos of the modern Korean dress from 1980 to 1997 were analyzed.

The results were as follows.

First, the aesthetic values of the body were categorized as divinity, humanity, and sexuality. The aesthetic values of dress were defined in relation to the aesthetic values of the body as ascetic beauty, pure beauty, natural beauty, and erotic beauty.

Next, while the traditional Korean costume (Hanbok) pursues the aesthetic value of divinity and humanity of human body and ascetic beauty, pure beauty, and natural beauty of dress, the contemporary Hanbok is based on the aesthetic value of humanity of the human body and the pure beauty and natural beauty of dress. The contemporary Korean fashion expresses the aesthetic values of divinity,
humanity, and sexuality of the human body and the aesthetic values of ascetic beauty, pure beauty, natural beauty, and erotic beauty of dress.

In conclusion, the emphasis of sexuality of the body and erotic beauty of dress in Korean modern dress can be interpreted as the change of the aesthetic consciousness of body and dress in contemporary Korea by the influence of the western modernity.

DEVELOPING A METHODOLOGY FOR EXAMINING THE FORM OF DRESS AND THE APPEARANCE OF THE BODY

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The purpose of this research is to explore the relationship between dress and factors of the body. The central question is: How can an aesthetic framework be used to analyze relationships between the form of dress and the appearance of the body?

To address this question, we use a four-step methodology for visual analysis that both situates an understanding of form and appearance within historical context and allows for an examination of how the body grounds the experience of the visual form of dress. Through this methodology, the form of dress can be integrated with social and cultural meaning (DeLong, 1998).

We selected specific examples of women's dress from the United States over four decades, 1890 to 1930, as the basis of two applications of the methodology. Through an analysis of each example, we discuss how the body is shaped and manipulated by the visual effect of dress within each decade, as well as compare this effect across periods, wearers, and types of events.

Through this research, we illustrate the effectiveness of using a consistent methodology for critically examining how the visual aspects of dress relate to perceptions of appearance. In addition, we explore the implications of this methodology for understanding how cultural ideals of the body influence the overall visual effect of dress and the relationship between form and meaning during a particular time period.


"MALE"-A-PROP: USING THE MALE BODY AS A SALES TOOL IN ADVERTISING

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In recent years there has been a radical change in the perception of the male body as used in advertising. Fueled by leading fashion designers, art directors, and photographers, the public's acceptance of overt sexuality and changes in modesty levels in the portrayal of men has been put to the test. The appropriateness of these changes is still in question although the objectification of the female body in print media has been prolific and consistent. Women, often scantily clad, are now competing with their male counterparts as "props" to sell cars, clothes, or liquor. Photographers such as Horst P. Horst and Baron George Hoyen-Huene glorified the male athletic body form for their personal art portfolios as early as the 1930s, later subtly adding a semi-clad male to accompany fashion layouts. Today photographers such as Herb Ritts, Bruce Weber, and Steven Meisel have produced their commercial and artistic visions of the male body objectified as a sex object when working for clients such as Calvin Klein, Giorgio Armani, and the late Gianni Versace.

This study evaluated the existence of male nudity or semi-nudity, whether gratuitous or not, in print advertising of the late 20th century, traced its inspiration in photography, and categorized the subject matter, purpose, and relative important of objectifying semi-nude or nude male bodies in advertising. September 1987 to 1997 issues of GQ (men's fashions), Esquire (men's lifestyle), Vanity Fair (men's and women's lifestyle), and Vogue (women's fashion) were reviewed. Advertisements were classified by the degree of nudity involved and its appropriateness for the product being advertised.

This qualitative study resulted in a collection of exhibits of advertisements for evaluation and identification of brand clients and photographers who use the nude or semi-nude male. Equality in exposing the male body as well as the female body may be considered progress to some, a step backwards to others. "Beefcake" seems to be gaining on "cheesecake," commercially speaking, as the next millennium approaches.
DESIGN: THE BODY INFORMS

Frankie M. C. Ng: Discussant
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Three papers were presented in this session: (1) "Aesthetic Consciousness of Body and Dress in Contemporary Korea" by Yonnhee Kim and Minja Kim; (2) Developing a Methodology for Examining the Form of Dress and the Appearance of the Body" by Marilyn Delong, Nancy Nelson, and Julianne Trautmann; and "'Male'-a-prop: Using the Male Body as a Sales Tool in Advertising" by Lorrie Ivas and Nancy Owens.

The common thread through these three papers was that all of them were qualitative. The second and the third paper were set in an American context (with brief mention of Canada and Switzerland by one) whereas the first paper was set in a Korean one. The first and the second paper dealt with costumes as the subject of study whereas that of the third paper was the (male) body.

In the first paper the author interpreted the meanings of traditional Hanbok, contemporary Hanbok, and contemporary Korean fashion. In the second paper, a systematic methodology was established to help evaluate historic clothing. The paper proposed a four-step procedure to facilitate in-depth analysis and examination of clothing and costumes. The third paper expounded and elucidated the development of using the male body as a marketing tool along its history. It examined the phenomenon of using the male body as a marketing tool, its being and purposes, with ample examples.

A few suggestions were made to these papers. For example, it was suggested that, in the second paper, the establishment of a holistic set of classification under which the various decoded visual meanings of the costumes could be evaluated would help further understandings of the holistic nature of fashion. For the third paper, it would be interesting for further research to be conducted to evaluate the effectiveness of male body exposure as a tool to promote sales from the perspective of consumers in addition to its present designer/photographer perspective.

A STUDY OF THE CORRELATION BETWEEN FASHION OPINION LEADERSHIP AND ACHIEVEMENT MOTIVATION

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This study is aimed to understand correlation between achievement motivation and fashion opinion leadership, the influence of achievement motivation and financial factors on fashion opinion leadership based on the college women's general tendency about what to do after graduation, and future jobs, career value and achievement motivation. This study is intended to contribute to understanding the clothing-related behavior of college women by relating clothing values of college women based on these basic understandings, setting up an effective marketing strategy for clothing companies targeting college women.

The subjects of this study are 710 college women living in Seoul. The results of data analysis are as follows:

First, in the college women's tendency toward future careers, 52% of college women like to work, have competition in work, and intend to make the work perfect. Also 96% of them want to have a job or to study after they graduate.

Second, the correlation between fashion opinion leadership and achievement motivation of the whole college women group is proven to be significant so that the college woman who has high fashion opinion leadership has the tendency toward high achievement motivation.

Third, fashion opinion leadership is influenced by achievement motivation and financial factor among psychological factor and material value. The financial factor is influenced by fashion opinion leadership more, specifically by total monthly clothing cost.

SHOPPING STRESS: WHAT MAKES SHOPPING PAINFUL

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Recently, consumer researchers and retail practitioners report shopping has lost its thrill and it is even a pain and stress. This study as a preliminary investigation explores what makes shopping stressful and whether it
is different by culture. Data were collected from an open-end questionnaire to 52 US college students and 67 Korean college students. Students were asked to recall stressful and unhappy shopping experiences in the past and to describe what made them stressful and unhappy. Data were analyzed by grouping similar responses into a category.

Various retail mix elements and an individual's personal and social situations were mentioned. Based on the frequency of each key word mentioned, responses could be categorized into service (46% of the US respondents vs 42% of Korean respondents), store atmosphere (23% vs 19%), merchandise (20% vs 16%), price (8% of Korean students only), personal characteristics (7% vs 8%), and social characteristics (4% vs 7%) in that order for both Korean and US respondents.

Service and store atmosphere were the two most frequently mentioned factors. Sales service by well-trained sales associates seemed to be the most important element for less painful shopping. There were slight differences between Korean and US respondents that could be explained by cultural differences.

This study provides some ground information for shopping stress. Structured scales using retail mix elements and consumers' personal and social characteristics and situations can be developed for a further step of research for the best retail mix of stress-free shopping.

DESIGN FOR QUALITY: METAMORPHOSING THE APPAREL DESIGN PROCESS

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In Concurrent Engineering (CE) design teams simultaneously consider a product's life cycle and function (Menon, 1992). Design for Quality (DFQ), one CE area, has the goal to increase profit by designing products made from high quality components.

Apparel associates, from three apparel and two textile manufacturers, completed questionnaires and Q-Sorts. DFQ was described to multiple focus groups (N=33). Subjects used their experience to identify DFQ activities. Data were decontextualized and recontextualized using Tesch's (1991) qualitative method. DFQ operational statements, apparel activities, multi-functional teams, and enabling technology were identified.

DFQ statements, by companies, were to design for consumer requirements, quality component selection, benchmarking, minimal manufacture variation, specific parameter values, and average part level maximization. Multi-functional teams included design, engineering, manufacturing, merchandising, merchandise services, quality assurance, service support, and textile members. Enabling technologies were actual resources, CAD, communication and visual resources. Results were recontextualized into a DFQ graphic conceptual model.

Using this DFQ model provides focus for apparel multi-functional teams. The model indicates apparel activities needed to implement DFQ. Implementation of DFQ could improve design process by creating products that exceed consumer expectations.


DESIGN OF PROTOTYPE PROTECTIVE PRIVATE GARMENTS FOR WILDLAND FIRE FIGHTERS

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The purpose of this research was to design new protective garments for California wildland fire fighters. Needs to minimize metabolic heat stress while providing sufficient thermal protection present special problems in California due to large differences in terrain and climatic conditions.

A user-oriented product development process was used to create the prototypes. Video tapes and previous surveys from the California Department of Forestry and Fire Protection (CDF) were reviewed for evidence of design problems. In addition, focus group interviews were conducted with male and female fire fighters. Topics covered included level of satisfaction with both work uniform and protective clothing components, liked and disliked features of present and past uniforms and protective clothing, movements and activities that are restricted by current gear, garment
failures, desirable new features, and any personal adaptations made to make the present garments more functional. Content analysis of interview transcriptions was used to extract themes from the interviews.

Common problems included difficulty in achieving a compromise between thermal protection and heat stress, in doffing and donning the protective pant, and in finding a pant with an acceptable waist-to-hip ratio. Design solutions included addition of a strap to the collar and a break-away shirt zipper to facilitate ventilation control, lengthening and relocation of the pant leg zipper for ease of use, and a redesigned closure for the pants to better accommodate different figure types. Prototypes have been reviewed by the CDF steering group, and two prototypes have been selected for further physiological and thermal testing.

POSTMODERN-FEMINISM AND DECONSTRUCTION IN CONTEMPORARY FASHION DESIGNS

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This study aims at grasping the differences between Modern Feminism and Postmodern Feminism, pursuing the deconstructional strategies of Postmodern Feminism and reviewing the expressional characteristics and the intrinsic meanings of the deconstruction in contemporary fashion designs.

Postmodern feminists attempt spontaneous deconstruction by revealing the falsehood of absoluteness and centrality in truth, rules, and the way of life in Modernism. They perceived that the "other" concept of woman was the result of social structure on the pretense of rationalism and tried to deconstruct the "other" concept of woman and raise the others who were ignored in modern society.

The basic concepts of Deconstruction by Derrida are "Difference and Dissemination" which lead to Open Thought. Deconstruction makes an attempt to decentralize using the techniques or methods of decentrality, undecidability of meanings, intertextuality.

The intrinsic deconstruction in fashion implies decentrality, undecidability of meanings, and intertextuality. Deconstruction in contemporary fashion expresses (1) Disclosure that the underwear and inner wear reveal the structure outside, (2) Deconstruction slashes, rips, or fringes the dress as the symbol of political and social resistance, (3) Poverty is looked upon as the old worn-out dress by using patchwork and decoloring, and (4) Analysis deconstructs the dress components in a fragmented manner.

Deconstruction is not meant to pursue partial changes in fashion designs but to create new aesthetics by the change of emotion in fashion. The decentralization should be accompanied by Pluralism that results in the inter-genre, intermode, interpresentation of objects. These phenomena create Multiculturalism and will last until the year 2000 as we freely try to find our identity in Multiculturalism. This can be considered to be a kind of new Humanism.

INDUSTRY-BASED MULTIMEDIA PRESENTATIONS FOCUSING ON BRA DESIGN AND PRODUCTION

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A content analysis of eight current apparel textbooks revealed that only 0.89% of the texts address intimate apparel. The project purpose was to develop multimedia modules focusing on bra design and production that may be used in existing courses.

The team conducted videotaped interviews with intimate apparel professionals. Bras from various manufacturers were secured and literature was reviewed. Videotapes were content analyzed and logs were organized.

Storyboarding was used to plan the content and visual components. Multimedia presentations were recorded on CD-ROM. Each focuses on a specific aspect of bra design and production such as bra styles, good fit, and textiles. Text, questions, short videotape excerpts, graphics, and animation are included.

Initial presentations were pilot tested in two apparel courses. Students reported a high level of interest in the content and that presentation formats were dynamic, easy to understand, and effective.

Faculty reported ease of use and indicated presentations were easy to integrate. A presentation may be viewed simultaneously on students' lab computers while the instructor facilitates, projected for class viewing, or used by individual students. Interest in intimate apparel was generated through the pilot test as students incorporated bras into design projects and pursued intimate apparel internships.

Additional multimedia modules are in progress. Copies of the modules may be
obtained from the project team for use at other colleges and universities.

LINKING THE DESIGN CURRICULUM THROUGH A MULTI-CLASS PROJECT

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Undergraduate students do not experience design curriculum linkages until late in their academic careers. Therefore, a multi-class boxer short manufacturing project was developed to (1) demonstrate how course content integrated across the design curriculum, (2) demonstrate the product development and manufacturing process for a sewn product, and (3) enhance understanding through experiential learning.

Students, graduate and undergraduate assistants, the textile products club, faculty, and an advisory board member worked together to manufacture and display a product. Aside from equipment acquisition, the multi-class project was completed in about five weeks. The project included specification development, sourcing materials, computerized pattern and marker making, prototype development and cutting and assembly of final products. The two participating faculty members coordinated the project time line to facilitate scheduling lecture topics, class assignments, and activities to contribute to the manufacturing project.

Involving students from a variety of classes allowed team interaction between groups who normally had independent, course-contained projects. This approach proved an effective application of the Seven Principles for Good Practice in Undergraduate Education, demonstrating the cohesiveness of the curriculum to all involved. Although challenging to manage, the multi-class project enhanced learning and critical thinking. Similar projects will be undertaken in the future, and additional courses will be examined for integrative project opportunities.

MARKETING A DEPARTMENT THROUGH OUTREACH EDUCATION PROGRAMS

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Declining enrollments, reduced funding in higher education, and misconceptions about what we "do" at the university is a problem for many states. Our university president provided funding for faculty to present outreach programs to build positive relationships for the university.

Our department outreach/recruitment com-mittee developed research-based educational programs of interest to secondary school youth and their parents. The purpose of this strategy was to increase visibility and enrollment in programs offered by the department and provide service to clientele of the state. Three programs were developed that could be adapted to meet the needs of various audiences. "Dangerous Dress: Teens, Clothes, and Violence" was designed to help parents and teachers become aware of clothing cues that identify youth-at-risk. This program was presented to PTA and 4-H groups. "Clothing Communicates: Understanding the Message" was offered to youth audiences and addressed the importance of brand names, advertising, peer pressure to conform, dress codes, school uniforms, and dangerous dress. "Impossible Ideals: The Obsession with Slimness" discussed influences affecting negative body image perceptions of youth as well as adults.

Family Consumer Science teachers at selected schools were contacted and welcomed university faculty into their classrooms. School counselors were visited at each school to personally deliver department materials. One-fourth of all students voluntarily chose to take home packets of department information. Plans are to continue this strategy, expanding to reach students in business, marketing, and retail classes.

TEACHING APPAREL DESIGN IN A FASHION WASTELAND

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Upper division design courses should strengthen analysis, synthesis, and evaluation skills (Bloom, 1956) as well as design skills. Students should make their designs relevant, using a variety of inputs. Students must also learn to be flexible and develop strategies to offset a lacking fashion environment.

Intermediate Garment Design requires the designing of 7-8 lines in the semester. The target market is specified in each assignment, as are inspiration sources, minimum number of
sketches, required design type, and price survey. Students make a survey of garments similar to the assigned one, for price, manufacturer's name, country of assembly, and assembly techniques from a department store, a specialty store, and a discount store. The price survey is to help them realistically design to fit a price range, as well as find out who the competition is in that market.

Students research professional and trade publications (e.g., WWD, DNR) to support their decisions. A formal presentation is made in class, where students and instructor evaluate on the basis of creativity, aesthetics, inspiration, current trends documented in trade publications, match to target customer, fabrics and colors, quality of sketches, and professionalism of presentation. Members of the course are required to critique.

Student success strategies include phoning retailers in New York City for prices; taking advantage of trade sources or relationships with industry professionals arising from their employment; using catalogs; constantly scouting fabrics and thrifts; taking advantage of weekend trips to California; and interviewing members of the target market. Some start subscriptions to trade publications; most watch cable television fashion programs.

The course also includes field trips to successful apparel manufacturers. Students are encouraged to attend the MAGIC show.

Plans are to continue these assignments, adjusting as needed each year.


COMPARISON SHOPPING ANALYSIS: AN INTERNET PROJECT

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As more Americans are connecting to the Internet, retailers are operating Web sites that offer merchandise to a technology-driven consumer market. On-line merchandising utilizes interactive technology and optimizes marketing opportunities in a high tech retail industry.

Academic programs preparing graduates for entry-level retail management positions must ensure that students develop proficiency in the use and application of technology. An Internet comparison shopping analysis project was designed to provide merchandising students with hands-on experience in enhancing their awareness with regard to electronic retailing and increasing their proficiency in the use of technological applications.

Each project team self-selected two retail companies for intra-type comparative analyses. Project requirements included analyses of (a) Web Site Planning: store image, space allocation, and utilization; (b) Visual Presentation: fixturing, signage, and merchandise presentation; (c) Merchandise Assortment: basic stock, model stock, private label/store brands, breadth and depth of assortments, and price points; (d) Customer Service: purchase
options and on-line assistance; (e) Market Segment: demographic and psychographic characteristics of target customers; and (f) Recommendations. Each team was required to submit their findings in both a written report and an oral presentation using a computer-aided presentation program.

The Internet has provided a new vehicle for students to apply merchandising knowledge in electronic retailing. Additional plans to expand the Internet comparison shopping analysis project include (a) comparison of virtual stores and in-store formats, (b) comparison of domestic and international retail Web sites, and (c) comparison of on-line and print catalogs.

USE OF ANONYMOUS SUPPORT SOFTWARE FOR APPAREL DESIGN CRITIQUES

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Students in critique situations are often timid when providing constructive criticism to classmates. To develop a method of constructive feedback by peers in a non-threatening manner, GroupSystems software (decision support) was used by students to comment on other student work anonymously.

GroupSystems was used in a senior capstone design course with a semester long group project. Student teams designed and constructed garments for a specified target market during the semester. In the first round of class presentations student feedback and interactions during the critique of the presentations were very limited and stymied. The second group presentations were in the GroupSystems lab with presentation table, mannequins, and chart stand—similar to a line-break meeting in the apparel industry. After each group’s apparel line presentation and answering questions, the critiquing students responded to pre-entered questions on notebook computers with GroupSystems. Examples included (1) What are the selling points of this line? and (2) What could be done to strengthen this line?

With the electronic network system, students were able to see responses to all the questions and to build upon other student comments for more detailed feedback. Each "sales force" team received the professor’s written evaluation and the printout of anonymous peer review comments for both the design project and the sales presentation. GroupSystems is an efficient electronic tool for team communication and problem solving.

BISON WOOL FIBER CHARACTERISTICS

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Nearly 60 million American bison once roamed the plains of North America. Slaughter of bison began in 1830 and they nearly became extinct. By the late 1800s fewer than 1000 animals remained. Today ranchers raise bison for their low-fat meat. Because of the demand for the meat, the number of animals has grown to an estimated 250,000. With the increase in the number of bison, interest in developing bison fiber for added value in the production of the animal has been generated.

Bison are fiber-bearing animals which shed their wool. Native Americans have been using the fiber for varied uses, ropes, stuffing, and fiber art.

This study was undertaken to determine the fiber properties of the bison wool, specifically, to determine a range of fiber fineness, to microscopically analyze the fiber shaft, to detect the presence or absence of scales, and to measure the moisture regain of the fiber.

Wool was combed from two bison, one considered to be the dominant animal in the herd and the other considered to be subordinate in the herd. In space restrictive environments, animals which are low in rank show abnormally inhibited feeding behavior and a diminished nutrient intake. A diminished nutrient intake can decrease fiber diameter.

Bison wool has course guard hairs and fine downy hairs. The guard hairs are hollow and range from 21 to 110 microns in diameter. The fine downy hairs are solid with a scale structure similar to sheep’s wool. The diameter of the bison downy fibers ranges from 12 to 29 microns. Both the guard hair and the downy fiber varied less than 1 micron in diameter from root to tip. The moisture regain of bison wool ranged from 13 to 20 percent.

Additional research into bison fiber appears to have merit. Processing of the fibers needs to be investigated. Given the mythology associated with the American bison and the romance of the Old West, the increasing number of animals offers the potential for the development of bison wool as a textile material and value added product.
EFFECTS OF LAUNDERING AND LIGHT EXPOSURE ON THE COLORFASTNESS OF ENVIRONMENTALLY IMPROVED TEXTILES

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Ecological responsibility has become a critical economic success factor in the 1990s. The purpose of this study was to evaluate and compare the effects of accelerated light exposure and laundering on the overall color change on the three components of overall color change.

This study was designed as a randomized factorial experiment with three factors: fabrics (four), detergents (three), and light exposure levels (three). Specimens were laundered according to AATCC Test Method 61. To simulate light exposure, AATCC Test Method 16 was utilized. Fabrics were exposed at black panel temperature of 63 ± 2°F and 30 ± 5% RH using a borosilicate inner filter and a soda lime outer filter. Analysis of variance (ANOVA) was used to analyze the influence of light exposure and laundering on overall color change (L) and on the two components of overall color change (a—redness or greenness and b—yellowness or blueness).

The analysis of light exposure data revealed significant differences among the four fabrics and between the three light levels of exposure: 10, 20, and 40 AFUs. As expected, overall color change was significantly greater after the longer exposure period, 40 AFUs. Analysis of changes in lightness (L) revealed statistically significant changes for each of the fabrics. Hue changes were also statistically and visibly significant for each of the fabrics.

Three laundering treatments were analyzed: laundering with no detergent, laundering with AATCC standard detergent, and laundering with an environmentally friendly detergent. There were statistically significant differences among the four fabrics and among the three detergent treatments with respect to overall color change. The fabrics became significantly lighter after laundering but there were no significant differences in lightness among the fabrics laundered by the three treatments. With respect to a and b, differences in hue shifts among the treatments were significant.

PHYSICAL PROPERTIES OF TANNED EMU SKIN

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U.S. emu farming began in the 1980s as a breeder market and has now moved to a slaughter market. The development of new uses for hides could increase hide values and could stimulate rural economies nationwide. The purpose of this study was to determine the physical properties of tanned emu skin. The physical tests were determined based on the projected end-use of the emu skin products. Tests included stiffness, abrasion resistance, tear resistance, breaking strength and elongation, flammability, wrinkle recovery, crocking, drape, image analysis, durability, and color-fastness to drycleaning.

The tanned emu skin had different properties for the different sections of the skin. For all samples examined, the flesh side was a network of fibers that were in varying degrees of order depending on the skin’s origin on the animal. The Kawabata KES bending test indicated that the back region had a higher bending rigidity than the belly region, which correlated with the results from the flexural rigidity ASTM 1388 test. The tensile test, ASTM 2209, demonstrated that the back region endured the highest peak load while the belly region endured the highest percent strain at break. Similar results occurred with the tear test, ASTM 4704, where the back region withstood the highest peak load and the belly region withstood the highest percent strain at break.

Results indicate emu skins may be very well suited for apparel products. Further development of a comprehensive database of physical property characteristics will assist designers and manufacturers in creation and production of products made from tanned emu skins.
THERMAL ADAPTABILITY AND HAND OF WOOL FABRIC
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This study sought to improve (a) the thermal adaptability of 100% wool fabric by treating with polyethylene glycol (i.e., PEG-8000), and (b) the hand of PEG-finished fabric by treating with a softening agent. Effects of the percent add-on of PEG-8000 on the fabric's thermal adaptability and hand were assessed. Adjustments in the softening-agent amount to optimize the fabric's thermal and hand properties were evaluated also.

Greater percent add-ons of PEG-8000 on dried, cured, unsoftened fabrics (12, 17, 33, 38%) occurred with higher PEG-8000 concentrations in the pad bath. The thermal adaptability of fabrics was proportional to the amount of bound PEG on them. The thermal storage and release values of specimens treated in the 45% PEG-8000 bath were 25.2 mJ/mg on heating and 26.8 mJ/mg on cooling. Drape coefficients of specimens with PEG add-ons of 33% and 38% were 91% and 97%, respectively. PEG-treated specimens were stiffer and less full and smooth than were untreated ones. The percent add-ons of the PEG-8000 and softening agent, combined, on fabric treated with PEG and softening agent were less than the add-ons of PEG on fabric treated with PEG only. Thus, specimens treated with both PEG and softening agent had thermal storage and release values 30-60% lower than ones treated with PEG only. As the softening-agent bath concentration increased, fabric drapability improved. Total hand values were similar for untreated specimens and softed specimens treated in PEG bath concentrations of 35% or 45%.

CLOTHING AND IDENTITY IN AN EMERGING SPORT: IN-LINE SKATING
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A new business interest for active sportswear manufacturers is in-line skating; the sport has grown rapidly, making it an attractive target market. Despite active sportswear being a high growth category for apparel manufacture-
of this study is to investigate the degree to which dress is used as a tool in the construction and maintenance of ethnic identity.

In-depth interviews with Scottish-Americans were the main source of data utilized in the current research. The findings of this study indicate use of dress in identification is important when one is just beginning to learn about his or her ethnicity. "Well, it seems like I always had a kilt and would wear it to school," said one woman. The importance of dress dwindles as an individual feels more connected to his or her ethnicity. One respondent explained how she feels about the use of dress to display ethnic identity, "...that would be a symbolic and useful thing to someone who doesn't get to hear bagpipes everyday...."

The findings indicate dress is important in the construction, but not in the maintenance, of ethnic identity. Dress is initially adopted as a medium by which individuals feel connected to others and construct their identity. However, once individuals learn more about their ethnic heritage, they find the use of dress as a means to associate less important. Dress is a tool individuals grasp in an attempt to take ownership of their ethnic heritage. When deeper, more intrinsic ways to connect with Scottish ethnicity are found, dress becomes a less important tool for identification.

ETHNICITY OF FASHION MODELS: AN EMPIRICAL STUDY OF IMPLICIT PERSONALITY THEORY

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This study was designed to examine if, in addition to model body size and age (Clayton, Lennon, & Larkin, 1987), model ethnicity could serve as a salient attribute in affecting perceptions of fashionability of the garment worn by a model.

Two Asian female students and two Caucasian female students at the same age and in the same body sizes were chosen as the stimuli in this study. All of them wore the same dress. One hundred and seventeen usable questionnaires completed by Chinese students studying in the U.S. were used. The results showed that only model ethnicity (p<.001) and model facial beauty (p<.001) were significant in explaining the perceptions of fashionability. Specifically, the result showed that the garments worn by Asian models were evaluated to be more fashionable than the garments worn by Caucasian models. The reason was that the Asian models were perceived to be more attractive than the Caucasian models. The result further supported the notion that the more attractive a model, the higher the evaluation of the garment worn by the model in terms of fashionability.

In addition, factors related to respondents such as their fashion interests, gender, and length of stay in the U.S. were found to moderate the relationship between the dependent variable, garment fashionability, and the independent variables model facial beauty and model ethnicity.


PERCEPTIONS OF THE IMPORTANCE OF DRESS TO THE SELF AS A FUNCTION OF PERCEIVED AGE AND GENDER

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Respondents to a mail survey of 599 adults ranging in age from 55 to 94 years completed the Proximity of Clothing to Self (PCS) Scale and indicated if they felt younger than, about the same as, or older than their chronological age.

A two (gender = male, female) by three (perceived age groups = younger, the same, older) anova yielded significant interactions of gender by perceived age (F(5, 593) = 28.879, p < .001) for the overall PCS Scale and for each of its six dimensions (F(5, 593) = 12.900 to 43.082, p < .001). Sheffe post hoc comparisons indicated that, for the overall Scale and for each of its dimensions, women who perceived themselves to be younger than their chronological age had higher scores (x = 6.00 - 4.86) than did men who also perceived themselves to be younger (x = 4.99 - 3.54). Women who perceived themselves to be about the same as their chronological age also had higher scores on the Scale than did similar men; however, the scores were lower than for those reporting a younger perceived age (x for women = 5.61 - 4.52; x for men = 4.54 - 3.52). For those respondents who perceived themselves to be older than their chronological age, no gender differences were found.
Results from this study suggest that perceived age may be a more reliable predictor than chronological age of the relative importance of dress and other aspects of self-presentation and that, the older a person feels, the more similar he/she might be to others who feel the same age. These data are a guide to market segmentation among older adults for products and services related to aspects of self-presentation.

BUSINESS CASUAL DRESS CODE POLICIES AND EMPLOYEE PERCEPTIONS

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Workplace dress has generated attention in the research literature. There is a growing trend toward business casual dress codes, although published research on the topic is lacking. Corporations are implementing policies in the hopes of increasing employee morale, enhancing communications, lowering status barriers, and increasing employee loyalty. The purpose of this ex post facto study was to determine employee perceptions of a new business casual dress code in a company that had recently switched from formal business dress.

A midwest computer company's employees were surveyed regarding a recent change from formal business dress to casual business dress. The formal business dress policy was very conservative in nature. Both men and women were required to wear business suits prior to the policy change. A questionnaire containing both closed- and open-ended questions was distributed to the employees a few weeks after the new dress code was adopted. The data were analyzed using regression and frequency analyses. Seventy-five surveys were distributed and 38 (M=24, F=14) were returned. Thirty-four percent of the respondents were single and 66% were married. Respondents' average age was 36.4 years (range=25-61) and average length of time employed in the computer industry was 10.9 years.

The majority of the employees indicated that the new dress code policy was a significant employee benefit. Women also viewed the new policy as a benefit; however, they may not have clearly understood what was meant by business casual since women generally have more choices in casual attire than men. Analysis of an open-ended question regarding cost revealed that, to date, there were no significant financial costs associated with compliance to the new dress code.

Overall, the business casual dress code policy was perceived to have made a positive impact. Employees viewed business casual dress as being more comfortable and in step with the trend among corporate America. Adopting this new policy may increase employee satisfaction and may decrease turnover in a competitive marketplace.

PERCEIVED CLOTHING DEPRIVATION AND ITS RELATIONSHIP TO SELF-ESTEEM AND SOCIAL PARTICIPATION OF YOUNG ADOLESCENTS

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The purpose of this study was to determine whether any relationships existed in regard to feelings of clothing deprivation, self-esteem, and social participation among young adolescents. Differences in feelings of clothing deprivation based on gender, race, and socioeconomic status were also investigated. The theoretical framework for this study was impression formation.

Sixth graders from a southeastern county public school system were the targeted population. The Coopersmith Self-Esteem Inventory was used to assess self-esteem and two portions of the Francis Clothing Attitudes Survey were used to assess feelings of clothing deprivation and social participation. Parental consent to participate in the study was received from 55% of the approximately 700 families who were contacted.

Pearson Product-Moment Correlations and Analysis of Variance tests (alpha level = .05) were used to analyze the data. Results indicated feelings of clothing deprivation in young adolescents are associated with low self-esteem and low levels of social participation. Significant, negative relationships between self-esteem and clothing deprivation were found. The greater the feelings of clothing deprivation, the lower the self-esteem. Significant, negative relationships were also found between self-reported feelings of social competence and social participation and clothing deprivation; as social participation and feelings of social competence increased, feelings about
the inability to purchase needed or wanted clothing and clothing deprivation relative to peers decreased. No significant differences were found to indicate that gender, race, or socioeconomic status were related to difference in perceptions of clothing deprivation.

THE EFFECT OF CUSTOMER'S DRESS ON SALESPERSON'S SERVICE

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Clothing is a form of nonverbal communication, which not only affects perceptions but judgmental or behavioral responses in others. Based on symbolic interaction theory, this research was designed to observe interactions between sales people and customers by focusing on the effects of customer's dress on the quality of service provided by sales people in real life retail situations.

Through observation, researchers rated customer's dress using 10-item rating scales. The ratings were factor analyzed using varimax rotation which yielded one factor with 9 items. This factor was used as the independent variable, labeled as overall appearance and was reliable (Cronbach's α = .91). As measures of service quality, promptness of service and friendliness of sales people were measured. Subjects were classified as well dressed and poorly dressed based on median split of scores on the independent variable. ANOVAs revealed that overall appearance of a customer was significantly related to friendliness of sales person, p < .05, such that well-dressed customers were provided with more friendly service than poorly dressed customers. However, ANOVAs revealed that overall appearance was not significantly related to promptness of service. Thus dress (e.g., overall appearance) affected customer-salesperson interactions but not promptness of service.

Considering the increasing importance of service quality in the retail industry, providing friendlier service for all customers may be an important competitive advantage and a key to success in business.

DRESS AND PERCEPTION

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This session included three papers with diverse approaches to the study of dress and perception. Theories included were impression formation, self-perception, and symbolic interaction. A variety of variables were employed. Survey methods ranged from established measures of self-esteem and clothing deprivation to a newer measure of perceptions of casual dress policies. A third method used was structured observations in a field study. Even though there were quantitative and qualitative measures used, quantitative results were more often reported than qualitative ones. Sample sizes ranged from 300 in the clothing deprivation study, to 60 in the salesperson study, to 38 in the casual dress study. Two "best practices" were noted in the salesperson study: (1) inter-observer reliability was tested and (2) observation of actual behavior as opposed to self-reports of behavior.

Suggestions for future study include the analysis of qualitative data reported along with quantitative data so that the meanings behind the numbers can be contextualized. Further study of gender and casual business dress and a follow-up study once the polices have been in place for a year or more were suggested. Placing emphasis on the large-size women included in the salesperson study may differentiate it from the numerous marketing studies cited. Future research on the effect on sales of similar appearance between sales associate and customer were encouraged. Findings that report effects on profitability would interest retailers and be good topics for grant proposals.

Focus group interviews with a cross-section of children included in the clothing deprivation study were suggested, along with a follow-up study with a less homogenous school population or a population directly opposite the one studied. Research is needed on adolescents who work long hours to earn money to pay for clothes. Work often prevents adolescents from participating in after school activities, which are more likely to have a positive long term effect than working at low paying, menial, repetitive jobs.
COMPARISON IN SHOPPING PATTERNS AMONG THREE CULTURAL GROUPS: JAPANESE, JAPANESE-AMERICANS, AND WHITE-AMERICANS

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This study is designed to assess whether Japanese-Americans' shopping patterns in purchasing social clothes have followed the linear progression model, which postulates that, over time, the immigrant's behavior patterns will become less like those of the culture of origin and more like those of the culture of residence.

Thus, the following hypothesis was established to be tested: Japanese-Americans will exhibit shopping patterns different from White-Americans (culture of residence) and Japanese (culture of origin) in terms of (1) information source, (2) store patronage, and (3) store attribute importance.

The survey of 171 Japanese-Americans and 162 White-Americans was administered in four large cities in the U.S.; the data for the 144 Japanese were collected from Tokyo.

The linear progression model was followed for information source (radio, family/friend, and observing others), store patronage (discount store), and store attribute importance (convenient location, helpful sales personnel, well-known brands, and up-to-date items). However, the linear progression model was not followed for information source (newspaper and coworker) and store attribute importance (easy parking, easy return, and well-known company).

The shopping patterns of Japanese-Americans cannot be viewed as a simple median between that of the Japanese and that of the White-Americans. It is suggested that marketers do not rely solely on stereotypical perception in strategy formulation.

COMPARISON OF CLOTHING ATTITUDES AND PURCHASE BEHAVIOR OF U.S. AND JAPANESE FEMALE UNIVERSITY STUDENTS

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The main purpose of this study was to investigate clothing attitudes and purchase practices of students in two countries, the U.S. and Japan. The sample included 186 U.S. and 278 Japanese students from 14 colleges/ universities. A questionnaire was used consisting of (1) 11 evaluative criteria, (2) six interests in clothing, and (3) 11 clothing information sources. All were measured on 5-point scales. To compare expenditures, calculations used one U.S. dollar=107 yen. Fit and style/design were rated as the highest evaluative criteria, and brand/designer name and country of origin ranked last by respondents in both countries. There were significant differences in mean scores; however, U.S. respondents rated fit, quality, fashion, durability, and brand/designer name higher than the Japanese respondents, who rated price, color, and fiber higher than U.S. respondents. Cluster analysis indicated slightly different solutions for the U.S. and Japanese data. More similarities than differences between the two countries were found with interest in clothing/fashion. Rankings of usage were the same for the two countries for the top five information sources: fashion magazines, store displays, friends, TV, catalogs.

University students from Japan and the U.S. tended to be similar in many ways relative to the variables investigated; however, this study indicated that the Japanese tended to spend slightly less, see price as more important, see brands as fashion, and look to retail more for information. The U.S. students saw fashion as more important, perhaps at all price levels exemplified by knock-offs and mass fashion at inexpensive prices. The meaning of fashion may be different for the two countries with the Japanese student considering branded products as fashionable. Marketing implications apply here especially for high profile branded merchandise to be sold in Japan.

THE USE OR NON-USE OF MAIL-ORDER SERVICES BY BLACK WORKING WOMEN WHEN BUYING CLOTHES

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Mail-order companies in South Africa are steadily expanding and have a promising future. One condition for success is knowledge of mail-order shoppers. Mail-order shopping might be ideal for black working women, whose purchasing power is increasing.
The aim of this study was to determine the extent to which black working women use mail-order services when purchasing clothing and to investigate factors which influence their decisions on whether to use this shopping method.

A questionnaire gathered information on the demographic and psychographic profile of the black working woman, her life-style, and perceived risks with respect to mail-order shopping for clothing. A convenience sample of 50 women was used.

Mail-order users are older and earn more than non-users. They have more children and their main means of transport to work and to the post office is a taxi, requiring more planning and leaving women with less time for in-store shopping. Non-users of mail-order enjoy buying clothes in clothes stores more than users, brand names are more important to non-users, and more users spend their extra money on clothes. Important considerations for mail-order users are well-known and trustworthy companies, the excitement of receiving a mail-order parcel, sufficient information on and good quality of the product, a free inspection period, and a money-back guarantee. These customers use mail-order services 2-3 times and spend R300-R500 annually. They mainly buy separates. They buy fashionable brand name clothes that make them feel good and are of good quality. Perceived risks are financial, social, functional, time, and source risks. Mail-order companies need information to plan products to meet client needs while consumers should be informed as to the convenience of mail-order shopping and the reality of the risks.

CONSUMER FIBER PREFERENCES

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Lifestyle segmentation is one way to understand consumer fiber preferences. The purpose of this pilot study was to determine lifestyle differences between groups of natural fiber users, synthetic fiber users, and users of both natural and synthetic fibers. The Engel, Blackwell & Miniard (1995) Consumer Decision Process Model served as the conceptual framework. Lifestyle criteria (independent variables) consisted of consumers' attitudes, interests and opinions (AIO's). General and specific items related to Internet usage, entertainment and outdoor activities, consumer apparel purchase interests, and demographics.

A written questionnaire was developed and distributed to two separate populations: university students and non students (employed) (N=85). Responses to fiber questions were used to formulate three groups: (1) "Synthetic Fiber User" (n=30), (2) "Natural Fiber User" (n=36), or (3) "Both Fiber User" (n=19).

Results from ANOVA indicated one significant difference between the three groups in the frequency of accessing the Internet (F=5.03; p<.008). Natural Fiber Users access the Internet more frequently than Synthetic Fiber Users or Both Fibers Users. The three fiber groups shared consistent activities, interests, and opinions.

Results suggest that the Internet is an effective marketing tool for targeting natural fiber users. Similar lifestyle marketing programs for the three fiber user groups could be employed when dealing with consumer interests in their apparel purchases such as apparel brands, styles, prices, and comfort. Lifestyle marketing programs with little or no differentiation may be used when dealing with lifestyle activities and consumer opinions.


THE EFFECT OF STORE AND PRODUCT COLOR ON SALES OF WOMEN'S DEPARTMENT STORE FOUNDATION GARMENTS

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The purpose of this study was to examine the effect of store and product color on weekly sell-through of women's department store foundation products. A domestic foundations manufacturer sought to determine if larger quantities of visible fashion color increase weekly (a) sell-through of fashion color and basic color units combined, (b) fashion color alone, and (c) basic color alone.

An experimental design was used for the study. Two large domestic organizations provided two department stores (total four) for data collection. These four stores were located in two large southeastern markets; each market contained one store from each organization. A
Spring test collection that included one fashion color was chosen for the study. One store in each market was administered a double order of fashion color (i.e., High Color stores) while two stores (i.e., Low Color stores) were administered original planned quantities of fashion color.

Weekly sell-through was calculated from point of sale data for seven weeks in each test store. Analysis of Covariance (ANCOVA) was used to detect differences in weekly sell-through between High Color and Low Color stores.

There was no evidence that High Color stores had a positive effect on weekly sell-through of fashion color and basic color combined, fashion color, or basic color units.

THE EFFECTS OF CONSUMER'S EXPERIENCE AND KNOWLEDGE ON INFORMATION PROCESSING IN CLOTHING PRODUCTS

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Consumer's experience includes advertising exposure, information search, interactions with salesperson, purchasing, choice, and product usages in many situations. Consumers will acquired some information through their experience, and then it is stored in their memory. It has suggested that experience and prior knowledge may influence the extent to which consumers search for, recall, and use information in judgment of product quality and in product choice. Therefore, consumer's experience and knowledge would be able to influence information processing and these variables will be important concepts for understanding consumer behavior.

The purpose of this study was (1) to identify the dimension of experience and knowledge with clothing product, (2) to examine the relationships between experience and knowledge, and (3) to examine the effects of experience and knowledge on information processing. A questionnaire was used for data collection. Experience was measured by various contents that consumer experienced in purchase or nonpurchase contexts. Knowledge was measured by subjective (self-assessed knowledge) and objective knowledge (the amount of brand, fabric, collar, and designer name recalled). The information processing was measured by internal search, external search, and the rules for evaluation which consumers engage in purchase contexts. The sample consisted of 668 females living in Seoul, Taejon, and Cheongju in Korea. For data analysis, factor analysis and multiple regression were used.

Clothing product-related experiences were composed of four dimensions: use/purchase, advertising exposure, browsing, and education. Subjective knowledge consisted of five dimensions: style/fashion knowledge, brand knowledge, purchase knowledge, fabric/care knowledge, and usage knowledge. Objective knowledge related to subjective knowledge positively, but the correlation coefficient was low ($r = .33$, $p < .001$). Experience influenced knowledge positively, and subjective knowledge was influenced by experience more strongly than objective knowledge. Experience and subjective knowledge influenced internal search positively. Internal search was affected by style/fashion knowledge most strongly.

Consumers who perceive themselves to know style and fashion are likely to use information in their memory more than external sources. External search was affected more strongly by experience than by knowledge. Knowledge related to external search negatively while experience related to it positively. Experience related to a compensatory rule as well as noncompensatory rule positively, and knowledge influenced a simplified heuristic positively.

LEARNING STYLE PREFERENCES OF MERCHANDISING STUDENTS

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Learning style preference is defined as the way in which students concentrate on, process, and retain information. The purpose of this study was to identify learning preferences of merchandising students. The sample included 142 students enrolled in merchandising classes at a Southwest university.

The Learning Style Inventory (Dunn, Dunn, & Price, 1975) measured students' individualized learning styles. Students responded on a 5-point scale (range, 1 = strongly disagree, 5 = strongly agree) to 100 items measuring environmental (noise level, light, temperature, design), emotional (motivation, persistence, responsible, structure),

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sociological (alone, peers, authority figures), and physical (auditory, visual, tactile, kinesthetic, intake, time of day, mobility) learning style elements.

Standard t-scores for each of the items were calculated by comparing the subjects' raw score to a national data base. T-scores 40 or below or 60 or higher indicated a distinct learning preference. Descriptive data were provided through percentage distributions.

The majority of respondents indicated no distinct preference for environmental, physical, or sociological elements. Further, subjects indicated no distinct preference for three of the four emotional elements. However, subjects did indicate a distinct preference for the emotional element of structure (65.5%).

Merchandising students in this study preferred a structured learning environment with established parameters provided by well-defined directions and procedures. Educators need to consider this as they develop course syllabi, class activities, and projects.


IDENTIFICATION OF DESIRABLE SKILLS FOR APPAREL DESIGN CAREERS

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The purpose of this study was to determine the importance of specific learning concepts on the success in apparel design careers and how often these concepts are used on the job.

The study population consisted of apparel manufacturing companies and/or design companies in the New York Metropolitan area that hire apparel designers. Questionnaires were returned from 77 (37.5%) of the 205 companies who received the questionnaire.

Based on the findings in Chapter IV of the study, the following conclusions have been reached regarding the study's research questions which were the perceptions of employers in the New York City Metropolitan area regarding the importance of specific design skills and concepts for success in an apparel design career?

Color concepts was considered the most essential skill identified by over three-fourths of employers. Clothing construction techniques were rated second highest, followed by garment fitting and alterations. More than half of the employers considered basic garment construction techniques and self-presentations (resumes, how to dress, and interviews) as essential. Apparel terminology and internship experience in designing apparel were also considered essential by the majority of employers. More than half of the employers also considered portfolio development important for achieving success.

Business law and labor relations were considered the least important skills identified by over one third of employers. Foreign language, accounting, and laundry and dry cleaning procedures were also considered least important.

RETAIL BUYERS' ASSESSMENT OF FASHION MERCHANDISING CURRICULA

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In recent years the retail buyer's position has changed. The trend toward centralized retail organizations, private label merchandise, increased use of technology, and global marketing have had a major impact on the buyer's job. It is important that curricula are updated to ensure that needed skills and competencies are incorporated to meet the changing profession.

The purpose of this study was to evaluate the importance of selected educational criteria to retail buyers. The criteria were from a study by Hines and Swinker (in press) that evaluated the clothing and textiles component of retailing/merchandising programs. Questionnaires were sent to 402 retail buyers in department, specialty, and discount stores. A total of 109 (27%) usable surveys were returned.

Both male (41%) and female (58%) buyers completed the survey. Most had been buyers for more than five years (62%). The majority of the respondents bought sewn products (65%), but a variety of merchandise categories were represented.

Frequencies and means were calculated for each criterion. Fifty-three of the statements (78%) were rated important or higher. Twenty-three (33%) were rated most or very important (M ≥ 3.5). Calculated ANOVAs indicated that buyers in department, discount, and specialty
stores rated the criteria the same. T-tests indicated that subjects who bought sewn products rated the criteria the same as buyers of other merchandise categories.


STUDENTS' SPATIAL VISUALIZATION ABILITIES AND STYLE OF PROCESSING PREFERENCES

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Correlations between apparel and general spatial visualization ability were found by Workman and Zhang (1997). We sought to validate their conclusions by measuring general spatial visualization ability using the Surface Development Test (SDT) and apparel spatial visualization ability with the Apparel Spatial Visualization Test (ASVT) (Workman, et al., under review). Additionally, we assessed students' tendency to process information visually using the Style of Processing scale (SPS) (Childers, et al., 1985).

SDT and ASVT scores were correlated ($r=.363$, $p<.05$), confirming Workman & Zhang's (1997) results. ANOVA revealed significant differences in performance on the ASVT based on major ($p<.001$) and enrollment in apparel design courses such as advanced construction, flat pattern, and draping (all $p<.001$).

Scores on the ASVT were correlated with students' preferences for visual information on the SPS ($r=.317$, $p<.05$), revealing a preference for visual information ($m=36.9$) over verbal information ($m=24.2$). Apparel design majors had slightly higher visual preferences ($m=38.1$) than did fashion merchandising majors ($m=36.95$). Results have implications for future instructional strategies. Preferences for a certain type of information may be as important to student learning and processing of new information as a student's learning style.


Workman, J., Caldwell, L., & Kallal, M.J. (under review). Development of a test to measure spatial abilities associated with apparel design and product development.

SCHEMATA IN THE CLASSROOM: STRUCTURES TO INTEGRATE KNOWLEDGE AND TO ENHANCE PROFESSIONAL DEVELOPMENT

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We demonstrated how an overarching model of textile and clothing subject matter and a taxonomy of value derived by the consumer from textile and apparel products can be used in the classroom to help students conceptually integrate subject matter and to enhance their professional development. We draw upon schema theory to justify the use of these structures in fostering cognitive integration of subject matter and to offer suggestions for application of these structures within textiles and clothing programs.

These two learning aids were inductively generated and serve as schemata, or structures, facilitating students' cognitive integration of subject matter throughout the program. The model is an interdisciplinary culmination illustrating how professional decisions (i.e., developing, gate keeping, promoting) regarding the formal, expressive, and symbolic aspects of the product and/or promotional environment offered to the consumer affect perceived value. Socio-cultural influences and individual differences of the consumer influence perceptions of the product and environment resulting in differences in perceived or desired value. Information about the product and environment, the socio-cultural influences and individual differences of the consumer, and desired or perceived value is utilized in making professional decisions. The taxonomy of value represents an organization of 20 instrumental and aesthetic benefits consumers reap from textile and clothing products and environments.

We propose these working structures as a beginning for all faculty in the program to develop a balanced integrative structure representing all aspects of the program and the larger textiles and apparel industry.
PERPETUATING CULTURE THROUGH JONKONNU COSTUMING

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The purpose of this study is to analyze how costumes in Jonkonnu, a Christmastime festival with its historical roots in the Caribbean, have been perpetuated and transformed in West Indian celebrations of North America. This research is significant because it contributes to the perpetuation and preservation of Creole culture. Since the 1960s, large populations of Caribbean people have emigrated to major cities around the world such as New York. Racial and cultural affiliations have kept them bound together in similar economic and political conditions. It is the adaptation of costumes to the new cultural contexts that is the essence of carnival culture. Cohen states that "cultural forms evolve to express the sentiments and identity of people who come together as a result of specific economic-political conditions..." (Cohen, 1980, pp. 66-67). Research methodology focused on participation-observation and open-ended interviews that were conducted during short fieldwork experiences in Belize, New Orleans, New York, and Trinidad from 1993-96. Video tapes of Carnival in Trinidad in 1987 and 1993 and photo documentation of West Indian Carnival in New York in 1995 and 1996 were analyzed.

Results of the study indicate that the cultural tradition of Jonkonnu and Carnival has not been lost in its transition to various urban areas in the world outside of the Caribbean. Jonkonnu remains a potent cultural symbol that reacts to its political situation and adapts to its economic conditions.


TEXTILES AND ARTISTIC EXPRESSION: EXPLORING THE CREATIVE EXPERIENCES OF IRISH WOMEN

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Throughout Irish history, textiles have often been linked to the idea of women's work and have consequently been assigned little social value as compared to other aesthetic forms (Ballard, 1993). Although currently used by some Irish women as a means of creative and artistic expression, the textile medium remains marginalized within the Irish art world and within Irish society as a whole.

The fundamental question of this research is: How do these contemporary Irish women textile artists experience their mode of creative expression within Irish society and culture? Gathered during fieldwork conducted in Ireland, data consist of the experiences of five different women artists and are framed by an interpretive methodology focused on developing texts of experience based on each artist's articulation of her own mode of expression in the textile medium. Methods used to collect and interpret these texts include interviews, observation, and dialectic analyses of the artwork.

The everyday as the conceptual location from which women express themselves is used as a framework for interpreting the texts, resulting in three levels of interpretation, including (a) personal narratives, (b) narrative themes within and across the artist's experiences, and (c) theorizing the role and meaning of textiles with respect to expression. The results of this multi-level interpretation indicate the ways that the textile medium can both reinforce and redefine traditional conceptions of gender, artistic medium, and social value.


THE PAKISTANI WOMAN'S DUPATTA: "DON'T LEAVE HOME WITHOUT IT"

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The most distinctive and dynamic item of clothing of Pakistani women's dress is the dupatta or head covering. Though the more familiar Pakistani dress ensemble is known to "non-Muslims" and "Westerners" as the shalwar kamees or pants and over dress, from the perspective of a Pakistani woman, the dupatta is the most requisite clothing item worn.

The dupatta is such a requisite item of dress that few adult women would ever leave home without one. This includes foreign nationals, such as researchers, living in Pakistan for an extended period of time. Though the question of how one dresses while conducting research is a relevant one in any cross cultural context, it...
is seemingly more poignant when living not only in a Muslim culture but in a declared Islamic State.

The research was conducted during four months of fieldwork living in Lahore, Pakistan as a Fulbright Scholar teaching in the Textile Design Department at the National College of Art and conducting research in Punjab and North West Frontier Provinces in Afghan refugee camps. The theoretical orientation used during data collection and analysis was an ethnographic and reflexive approach which chronicled the apparent discourse between the researcher including but not limited to administrators, colleagues, students, household personnel and friends.

BIODEGRADABILITY OF BAGASSE GEOTEXTILES

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An improved low cost erosion control material has been produced from bagasse, the waste product from the crushing operation of sugar cane. The purpose of this project was to determine the biodegradability of bagasse mats.

Bagasse was screened through a 4 mesh screen to remove the smaller fibers, and the larger pieces were treated in an augur screw continuous reactor containing 0.1 N NaOH. The resulting fine fiber bundles obtained averaged 5 cm in length. Fiber mats were formed by laying 82 g of extracted fibers on a perforated screen in water, dewatering, and drying. Mats measuring 6 in x 6 in and weighing 20 g were buried in two different soils: Calloway silt loam (pH 7.0) and Red Clay (pH 4.8) (AATCC Method 30). Sample trays were placed in growth chambers at 20°C for 8 weeks, and 6 samples were removed from the trays for determination of weight loss at 2, 4, 6, and 8 weeks.

After 2 weeks the mats had lost over 50% of their weight, and at the end of 8 weeks all of the buried samples had lost over 80% of their weight, showing almost complete biodegradation. Weight loss was significantly higher in the Calloway soil, and burial time was a significant factor for the Red Clay. Soil burial had a greater effect on fiber bundle integrity than on individual fiber strength.

The study demonstrated that nonwoven geotextile mats can be formed from bagasse fibers without prior separation of pith fibers. The mats biodegraded in 8 weeks, leaving less than 20% of the original mat weight as a fibrous residue with no structural integrity. Type of soil affected the rate of degradation but not the final level.

DYEING SAFELY

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There appears to be a renewed interest in natural dyeing and a sharp increase in the number of hobbyists and home dyers who want to experience the exciting joy of discovering new rainbows in lovely colors. It is perceived as a benign and wholesome activity. Not many actually take into account concerns about safety and hazards involved with this process. The main objective of this study was to ascertain if the amateur dyer was being adequately warned of the potential risks of contact with the chemicals commonly used in natural dyeing as suggested in the "how-to" books. A review of over 350 books and articles available through the local public library system was conducted.

One of the most distressing findings was that in only two instances did the natural dyeing literature give any warning to pregnant women or women of childbearing age. Women who are pregnant, think they are pregnant, or are planning to be pregnant soon should not use the chemicals used in dyeing (Blumenthal & Kreider, 1988). Under any circumstances, women should not expose themselves to dyestuffs, dusts, and vapors during pregnancy or lactation (Hasegawa, & Patterson, 1988). Some chemicals are known to cause teratogenicity and fetal toxicity.

MICROWAVE DISINFESTATION OF CELLULYTIC FUNGI AND EFFECTS OF MICROWAVE RADIATION ON CELLULOSE FIBER MICROSTRUCTURE

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The purposes of this study are (1) to identify the microwave conditions that can be used to disinfest mildew on cellulose textiles and (2) to investigate the effects of microwave radiation on fiber microstructure. Unfinished cotton 4 oz. muslin 2" x 2" samples were cultured with 
Aspergillus Niger fungi. The mildew-infested samples were then microwaved. All samples were microwaved on the high setting of a 1000 W 1.1 cubic foot household microwave oven. To determine the effects of microwave radiation on the cellulose microstructure, cotton muslin samples without mildew infestation were microwaved using the same conditions as those for mildew-infested samples. After microwave radiation, each sample was monitored using scanning electron microscopy (SEM), infrared spectrometry (IR), Instron, and AATCC Gray Scale for structural and color changes.

The results indicated that 24 minutes of microwave radiation with fabric moisture content of 72.1% were sufficient to kill the 
Aspergillus Niger on cotton muslin. IR spectra showed that there was no difference in the absorption bands found between fibers with 24 minutes and without microwave radiation. SEM micrographs of cotton fibers showed no apparent morphological changes due to the microwave radiation. In addition, the results also showed that there was no significant loss of fiber tensile strength after 24 minutes of microwave radiation, nor did the fabric change color due to the radiation. The results of this study suggested that microwave treatment can be a potential tool provide a non-chemical and safe technique for disinfestation of mildew on cellulose textiles.

TEXTILES: SAFETY, HEALTH AND THE ENVIRONMENT

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The diversity of paper topics in this session exemplifies the complexity of safety, health, and environmental issues. What links these three papers and, in fact, all research in this area is the relationship between a product and the environment. For many years, textile researchers and manufacturers have been concerned with the effects of the environment (light, weather, soil, microorganisms) on textile products. More recently, attention has turned toward the effect of the product on the environment. The key question is whether a product should be durable or degradable. Ideally, a product is durable for as long as it serves a purpose, but as soon as it is no longer needed or wanted, it quickly degrades with no detrimental effects on the environment, safety, or health. The desired period of durability varies, depending on the product and how it is used. Ideally, geotextile mats remain durable until vegetation is established, then are absorbed into the soil. The ideal mordant is safe to use, enhances dyeing, and then degrades without harming the environment. Ideally, historic textiles would maintain their durability forever, unaffected by microorganisms or other environmental factors.

In attempting to enhance either the durability or the degradation of a product, the long-term effects of decisions on safety, health, and the environment must be considered. Questions such as whether "natural" is best and whether recycling is desirable must be addressed individually for each product, in the context of product serviceability and effects on personal and environmental health and safety.

PROMOTING THE COMPETITIVENESS OF TEXTILES AND CLOTHING MANUFACTURE IN SOUTH AFRICA

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This research explores opportunities for trade and investment in export-oriented textile and clothing sectors in South Africa. Reorientation of South Africa's textile and clothing sectors toward export markets is underway as the country implements its trade liberalization commitments to the international community. Because of its labor-intensive nature, employment generation is an important benefit of the industry, particularly for female laborers who often comprise a large proportion of the manufacturing labor force. Thus this reorientation has important implications for labor productiv-
ity, the demand for labor in South Africa, employment, and overall economic growth.

Lessons from analysis of stylized firm types are clear. While one firm type faces difficult external conditions, it has done little to respond creatively to the challenges. Its response is to continue to do what it has always done, only in a different location. It chooses locations which still look more like the South Africa in which it was for many years successful. Another firm type, in contrast, is forward looking and flexible, changing its internal organization and strategy in response to changing external conditions.

Policy implications of these findings in the areas of human capital development, access to capital, government economic policy, export promotion, and labor market policy are explored in the paper.

RECYCLING OF SOLID WASTE IN THE APPAREL INDUSTRY IN SOUTH AFRICA

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Accelerated economic growth and development in South Africa could mean a renewed onslaught on the environment due to industrial waste. Recycling of apparel waste is motivated by the increased costs of landfills, the decreased availability of space, and the dwindling of natural resources. South Africa must comply with the global policies regarding waste reduction and recycling.

This study identified current waste disposal and recycling practices of the apparel industry and determined their attitude and willingness toward recycling, use of recycled products, barriers to recycling, and marketing strategies.

A questionnaire was developed in collaboration with Dr. Grasso. It was mailed to 338 South African apparel manufacturers. Small companies employed 100 or fewer people, medium-sized companies employed 101-500 people, and large companies employed more than 500 people.

Various waste disposal practices are currently used. Most apparel manufacturers make use of landfills while 34.8% recycle some of their waste. Recycled items, in descending order, are cardboard and boxes, cutting room waste, paper, yarn cones/tubes, and packaging materials. Of those which recycle their waste, 7.8% process it in house; the majority sell it to be reused or recycled. Respondents were fairly positive toward recycling and use of recycled textile materials. Most thought that products made of recycled materials are of lower quality than those of new materials.

Barriers included lack of equipment and technology, lack of recycled material, and lack of markets. The size of manufacturer and/or type of production had no effect on the results.

U.S. AGGREGATE DEMAND FOR CLOTHING AND SHOES, 1929-1994

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This research used annual data, 1929-1994, to analyze effects of the changes in total nondurables expenditures, prices, and demographics on U.S. aggregate demand for women's and children's clothing, men's and boys' clothing, shoes, and other nondurables. The data are from the U.S. National Income and Product Accounts and from Census publications. An almost-ideal-demand-system model was estimated by regression. The dependent variables are the nondurables budget shares of the four categories of goods. The independent variables are total nondurables expenditures; prices; population age distribution (median, variance); non-white population proportion; women's employment; and a World War II dummy variable.

Results indicate positive effects of several variables: of total nondurables expenditures on the clothing and shoes budget shares; of median age and non-white population proportion on the shares of shoes and men's and boys' clothing; of women's employment on the share of women's and children's clothing; of all the goods' own prices though cross-price effects varied; and of World War II on the clothing budget shares. Elasticity estimates indicate that the budget shares for clothing and shoes are quite responsive to changes in the total nondurables expenditures but have low to medium responsiveness to changes in the goods' own prices. The results imply optimism for future sales of apparel and shoes given U.S. population projections on age, racial composition, and women's employment. A possible counterweight is the decline of nondurables relative to durables and services in consumers' purchases.
1950s LINKAGES BETWEEN THE HOUSE OF LESAGE, PARIS AND MARTHA’S, INC. OF NEW YORK

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KSU has in its library holdings 19 original 1950s fashion sketches and 31 partial garment patterns stamped with the label "Albert Lesage & Cie, 13 rue Grange-Batelière, PROVence 80-93 - PARIS IX e. These items came from Martha’s, Inc. when they closed their New York store in 1993. The researcher questioned the original intent of the sketches and patterns as well as why they came to be given to the school by Martha Phillips.

Oral history interviews were conducted with François Lesage, the son of the late Albert Lesage, and Lynn Manulis, the daughter of the late Martha Phillips. In addition, the researcher was allowed access to the Lesage archives to answer some of the questions. The research revealed that the sketches were rendered by Colette Lesage in the 1950s. They were done to document how the couturiers of the times were using the embroidery of the House of Lesage. M. Lesage then shared these with Martha and she used them as inspiration for Martha Originals. The embroidery was done by Lesage and the garments were created in Martha’s own custom workrooms in New York. Miss Lynn said the patterns were from Lesage and used for inspiration for her patternmakers; M. Lesage said Martha brought the patterns to him. The patterns reflect only those pieces with embroidery on them. The complete story and the photos are on line at http://www.kent.edu/fashion under Special Features.

A MATERIAL CULTURE ANALYSIS OF SELECTED GARMENTS OWNED BY MONA VON BISMARCK

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The purpose of the study was to examine four Balenciaga garments in the University of Kentucky’s Costume Collection that belonged to Mona Williams von Bismarck from 1963 to 1967. A material culture analysis was used to document the properties of material, design and construction, and workmanship of the garments and to examine those properties through identification, evaluation, cultural analysis, and interpretation. Also, a content analysis of women’s fashions in Vogue magazine from January 1962 through December 1967 placed the garments within a historical time frame, thus allowing comparisons between garments studied and those being shown as fashionable.

Mona Williams von Bismarck was the first American to be voted the Best Dressed Woman of the Year in 1933 and continued to appear on the best dressed list; in 1958 she was named to the best dressed hall of fame.

The four garments studied were a double-breasted suit, an evening dress, a cocktail ensemble, and a tunic with matching skirt. Results from the material culture analysis confirm that the garments are authentic as couture numbers were traced to the Balenciaga archives and the original sketches were obtained from archivist Madame Jouve. The analysis indicated that Bismarck chose clothing that was of high quality and fashionable within the standards of the 1960s for a woman in her sixties. Results from the content analysis of Vogue reveal that Bismarck was a fashion leader because her garments preceded the mass population’s adoption of the same styles. Even though Bismarck’s physical measurements changed as she aged, she remained fashionable throughout her life.

FUNCTION TO FANCY, FANCY TO FASHION: ONE HUNDRED YEARS OF FAMILY TEXTILES

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Textiles produced in rural homes reflect the traditions of the regions in which they were produced. When people migrated west, traditional practices were carried along, but pioneering life required products that could be more easily made than those in more settled regions. As life became easier through the addition of purchased goods, products became more complex but still reflected regional traditions. Finally, when modern conveniences were introduced to households and print sources informed people about new ideas, textiles made at home reflected fashions that were not local. This research focuses on a collection of textiles made by three generations over 100 years. Family papers, newspapers and other print sources were used to interpret information col-
lected from the goods made between 1835 and 1940.

Traditional practices are passed from older to younger people whereas fashion represents novelty and is disseminated very broadly through media sources such as magazines or newspapers or electronic means. This collection of textiles clearly shows the transition from tradition to fashion. The textiles and family papers show a transition from the functional goods to fancy techniques once ready-made goods were available. Finally, when mass communication reached this rural location, the textiles were fashionable.

**QUILTS, THE MEDIA, AND THE PUBLIC, 1963 TO 1993**

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From the 1970s, quilts seem to have caught and kept consumers' interest. This study used historical, content, media, and trend analysis techniques to explore a reciprocal relationship between media and public in building quilt popularity across 30 years, and it investigated whether or not trend evolution or cycling was evident. Three data sources, Books in Print, the New York Times Index, and the Art Index, were sampled. A total of 892 quilt books were documented. Available (new and backlisted) books rose from 7 to 533. Book titles were classified by content type, time period, and theme. Most incorporated more than one content type. "How-to" and 20th-century topics dominated. The New York Times Index revealed 163 quilt articles. These were classified by titles and abstracts into 8 content and 35 topical categories. Quilt guilds and teaching quilting were addressed most regularly, but quilt exhibits had the most articles.

Books' and articles' contents showed continuity and change. To clarify and seek additional insights, 201 magazine article titles were examined, and a judgment sample of 27 underwent media analysis. Contents revealed (1) an evolutionary discussion about quilts as art or functional objects, folk or fine art, and social symbols or detached art media; (2) the building of a large quilt world incorporating sub-worlds; and (3) the achievement of mainstream visibility through quilts' use as moral symbols and celebration in large festivals. Application of combined research techniques showed a rise, rather than cycling, of interest in quilts. Fluctuations and transitions in interest levels and topical perspectives and the evolution of a multi-layered world of individuals involved with and taking gratification from quilts were revealed.

**AN EMPIRICAL ASSESSMENT OF INTERNET RETAILING: MOTIVATIONAL, BEHAVIORAL, PSYCHOLOGICAL AND DEMOGRAPHIC VARIABLES**

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The use of the Internet expanded 2,000% in the last decade and is doubling every 10 months with more than 20 million users. It is only natural that many businesses are recognizing the value of the Internet to promote their products. This study was conducted to identify the profiles of consumers who are likely to buy products through the Internet. This paper identifies motivational, behavioral, demographic, and psychological variables that are positively related to a consumer's attitude toward Internet retailing for clothing products.

Data were collected from 180 randomly selected individuals, using a survey (response rate = 22.5%). About 64% of the respondents were female, 60% were ages 25 to 45, 45% were married, and roughly 60% had an annual household income of $20,000-$54,999.

Multiple step regression analysis was used. First, information seeking, time saving, and effort saving (motivational variables) were entered into the regression analysis to see their effects on a consumer's attitude toward Internet shopping. Information seeking has a significant positive effect on the attitude toward Internet shopping (t=3.18, p<.01). Time length of being an Internet user, time spent on Internet per week, frequency of use, and past experience of purchasing from the Internet (behavioral variables) were entered as independent variables. The results of the second analysis indicates that "time spent on the Internet per week" has a positive effect on the dependent variable (t=2.50, p<.05), and "information seeking" was significant (t=2.15, p<.05). Self-esteem, fashion innovativeness, fashion opinion leadership, impulse buying, time consciousness, value consciousness (psychological variables) were entered to the analysis. "Impulse buying" had a significant positive impact (t=2.47, p<.05). "Information
seeking" in motivational variables and "hours per week spent on the Internet" among behavioral variables were still significant ($t = 1.99, p<.05$ and $t = 2.24, p<.05$ respectively). An individual who is motivated to seek information, spends a substantial time on the Internet, and has a high level of impulse buying tendency is likely to respond favorably toward Internet retailing for clothing products. Females ($E=3.80, p<.05$), who are younger ($E=2.64, p<.05$) and have higher household income ($E=2.58, p<.05$) respond more favorably toward Internet retailing for clothing products.

APPAREL RETAILING ACQUISITIONS: EXPLORING THE IMPACT OF Deregulation IN THE BANKING INDUSTRY

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A study of over 200 apparel retail firms examined the impact of banking deregulation on merger and acquisition activity between 1973 and 1992. Eleven financial variables were used to identify the common internal characteristics of acquiring, target, and non-active firms which might be of predictive value.

The sample was divided into three distinct time periods: Those retailers participating in M&A activity Before Deregulation (1973-1981), During Deregulation (1982-1987), and After Deregulation (1988-1992). A multivariate discriminant analysis procedure was then utilized to determine the predictive accuracy of the variables during these three periods.

Findings seem to indicate that, before deregulation, many financially strong retail firms were acquiring other financially strong retail firms. The rest of the activity took the traditional form of a financially strong firm acquiring a firm which was somewhat weaker financially.

During deregulation many financially weak retailers were participating as acquiring firms in M&A activity. This may have been an attempt to spur growth instigated by the easy availability of loans and positive economic growth. After deregulation acquiring firms are easily identified as those who are financially strong and large in size while target firms are often financially weaker and/or smaller in sales volume.

THE BENEFITS OF A SPECIALTY STORE NETWORK

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The purpose of this study was to discover the general benefits, relationships, and reciprocity provided by a network of 55 small, independent specialty retailers located in rural midwest areas of the U.S. Studying how this group has successfully operated for 25 years can help additional small apparel retailers in forming similar networks.

The case study approach was chosen as the method for studying this network of retailers. Thirty of the network members agreed to participate. Credibility was established through a one-year engagement with the network involving regional market week shadowing, assistance with fashion shows, and participation in their annual summer retreat. Triangulation was used in data collection to gain consistent and dependable data. Focus group, participant observation, personal interviews, telephone interviews, and content analysis of the network's bylaws and weekly newsletters was conducted.

Results of this study suggest that the network members felt powerless at market before becoming a part of the network. They felt that they did not have the buying power and could not get special consideration from the wholesalers. By forming relationships with other network members, maximum ordering limitations were overcome by communal ordering. Additionally, members who reported failed business strategies benefited from members who shared similar situations and their methods of recovery. Findings will be used in outreach materials for development of additional networks.

RETAIL EXPANSION INTO THE INTERNATIONAL SCENE

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This research project investigated United States retailers' expansion of trade into the foreign markets of Latin American: Mexico, Argentina, Chile, and Brazil. This study is important to the apparel and textile field as successful retail businesses in the U.S. have a significant impact on the country's economy and are of vital importance to the merchandis-
ing sector of higher education across the international plane. United States retailers are realizing they can improve their profit margins by expanding into the global scene.

The purpose of this study was to determine how important the following factors were in a retailer's decision to establish a presence in Latin America: (1) political and economic stability of the country, (2) retail market size and growth, (3) real estate issues, (4) government regulations/types of entry modes, (5) customer base or target market, (6) competition, (7) technical feasibility, and (8) sourcing, distribution, and supply base.

Results were as follows. ANOVA and rank-ordering statistical analysis was used. Factors identified as most important to U.S. retailers as being instrumental for their successful expansion into Latin American markets were political and economic stability of a country, size of the retail market and growth, customer base or target market, and competition. The least important factor to retailers was technical feasibility.

In examining the sourcing, distribution, and supply base factors, the most important components were the time frame for the products to get through the supply chain to the store and having the right partner for your supply chain; the least important factor was the type of sourcing structure available.

This study broadens the knowledge base concerning U.S. retail expansion into Latin America markets. A successful U.S. retail economy is an essential component of the success of the higher education merchandising field.

A CAPSTONE EXPERIENCE: MINI-INTERNSHIPS OF STUDENTS WITH WOMEN ENTREPRENEURS

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Since a capstone experience is required in every program of our University, the ATID department developed a seminar course with a senior project component. Since most of the students have had a retailing internship, it was decided to introduce a business-related experience with women entrepreneurs.

The objectives were (1) to allow students to apply their area(s) of expertise to "real" problems and issues, (2) to expand the students' professional experiences, (3) to demonstrate practical applications of the theoretical framework of apparel and textiles, (4) to develop University-Community partnerships, and (5) to present role models to the female students in the class.

Women-owned businesses are the fastest growing sector of the nation's economy. With funding from the U.S. Small Business Administration, a public-private partnership, the Women's Business Institute, was created for the Fargo/Moorhead Metropolitan area.

In close cooperation, the faculty and the Institute paired students with women entrepreneurs in accordance with the students' interests. The students were to study the small company, develop strategies, and recommend actions. The approach taken was tailored to the specific needs of the business as well as the skills of the student.

Prior to the start of the intern period (16 hours), the class met in a seminar format where students and faculty discussed strategic topics of relevance to the apparel/textiles discipline. Upon their return to the campus, the class met again and students presented their experiences in a short paper and an oral presentation. The students were expected to describe what they learned, list their contributions to, and assess their effectiveness in the women-owned businesses.

The project was successful because the problems encountered were "real." Students interacted with women entrepreneurs and tried out ideas with little risk. The University and the community interacted, shared expertise, and developed rapport.

BUILDING BRIDGES: DEVELOPMENT OF AN INTERNSHIP PROGRAM

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The purpose of this project was to develop an internship program for the Fashion Program of Stephens College. The nature of the problem was that an internship program needed to be developed in response to the long-range strategy of Stephens College. Five questions guided this study. First, "What are the components of the internship program?" Second, "What are the goals for the internship program?" Third, "What is an effective design for this internship program?" Fourth, "How will it be implemented?" Fifth, "How will it be evaluated?"

Development methodology was selected as the procedure for problem solving. This study yielded a number of products
CONSUMER PATRONAGE PREFERENCES AND SHOPPING MOTIVATION: AN INVESTIGATION OF MALL TENANT PLACEMENT STRATEGIES

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The purpose of this study was to investigate the relationships among consumers' shopping motivations, their preferences for specific shopping outlet types, and their predilection for concept clustering tenant placement strategies. Knowing the basic motivation of the shoppers preferring enclosed malls and concept clustering will allow mall management to adjust aspects of the merchandising mix to better satisfy their customers' wants and needs.

A mail survey measured consumers' basic shopping motivations, shopping facility preferences, tenant placement preferences, and select demographics. The sample consisted of 590 completed questionnaires with a response rate of 22 percent. Data were analyzed with a factor analysis to reduce shopping motivations into four distinct motivational behaviors—economic, hedonic, social, and aesthetic—and correlation analyses to determine relationships among shopping motivations, store facility preferences, and tenant placement preferences.

The findings support consumer preference for enclosed malls, which was significantly correlated with all four motivational factors. Results also suggest that economically motivated shoppers preferred to shop in malls using a concept clustering tenant placement strategy. Shoppers motivated by social, hedonic, and aesthetic reasons reported that traditional placement patterns were preferred.

INFLUENCE OF MERCHANDISE DISPLAY LIGHT LEVELS ON APPROACH-AVOIDANCE BEHAVIOR OF CONSUMERS

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Illumination is recognized as contributing positively to retail success, yet few empirical studies measuring the effect of in-store lighting on consumer behavior have been published. In this study a methodology was developed and used to determine the effect of retail display lighting on the approach-avoidance behavior of consumers. Supplemental lighting on merchandise displays in two retail stores was temporarily installed and manipulated On/Off to test for effects on consumer behaviors of Time at Display (TAD), Number of Items Touched (NIT) and Number of Items Picked Up (NIP) as recorded by video cameras. An accidental sample of consumers provided 2367 observations as coded by two raters with inter-observer agreement over 70%. Data were analyzed using ANOV and Bonferroni paired comparisons.

Supplemental lighting had a positive effect on consumer behavior, as qualified by store type. The effect of lighting on differences in NIT and NIP was statistically significant while the effect on TAD was not. The effect of store on TAD, NIT, and NIP was statistically significant. Interactions between supplemental lighting and store were also found to be statistically significant.

Approach-avoidance theory proved effective in explaining consumer behavior, and study methodology offers reliable tools for further research. Based on these findings, a retailer's manipulation of in-store display lighting may achieve a significant increase in general consumer involvement with in-store display merchandise.

STORE ATTRIBUTES AND CONSUMER CHARACTERISTICS WHICH INFLUENCE PATRONAGE ACROSS FOUR RETAIL SOURCES

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The purpose of this study was to analyze ten store attributes of four retail sources
and the consumer demographics of individuals who had purchased apparel and children's products from each of the four mediums. The four retail sources examined were traditional retail, catalog, TV/home shopping and the Internet/World Wide Web. Ten store attributes and ten consumer demographic variables were examined across two product categories: apparel and children's products. Additionally, four attitudinal variables—innovativeness, involvement, opinion leadership, and market mavenism—were also examined for the intent to purchase these products via the Internet.

Data were collected via an online survey instrument placed on the Web. Respondents rated each of ten store attributes for each of the four retail sources on a 5-point Likert scale in relative importance to patronage of that medium. Respondents were also asked to report if they had purchased the product via each retail source and to indicate their likelihood to purchase each product category via the Internet.

The data were analyzed using logistic regression. Results and direction of parameter estimates varied with the retail source. These results indicate that specific store attributes are important to consumers, based upon the type of retail source patronized, and that consumer demographics and attitudes are also source-specific.

STORE ATTRIBUTES AS INFLUENCES ON SHOPPING BEHAVIOR

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The researchers in this session provided papers with diverse topics in relation to store attributes and consumer behavior. The relatedness of the papers was built around what attracts consumers to patronize various retail sources and motivates consumers to purchase products.

As individual works, the papers contributed a number of important new findings to the literature. For example, Summers and Hebert measured the effect of light level manipulations in retail display areas and found that supplemental lighting treatments, or brighter lights, did have a positive effect on consumer behavior. LeHew and Cushman took a different approach and examined shopping motivation, retail patronage preference, and tenant placement preference and examined the relationship of each. Kunz examined four different retail sources: traditional retail, catalogs, TV/home shopping, and the Internet.

The authors and those who participated in the discussant session generated challenges and suggestions for future research. As a collective, the papers demonstrated that with the increase of patronage sources, it is vital for retail stores, as well as enclosed malls, to enhance atmospherics. Lighting plays a major role to promote the diverse customer to approach, handle, and purchase their products rather than visiting other non-store retail sources.

COMPARISON OF STUDENT AND FACULTY PERCEPTIONS REGARDING TEACHING EFFECTIVENESS, RESEARCH ACTIVITIES, AND AVAILABILITY WITHIN TWO DISCIPLINES

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The purpose of this study was to investigate students' and faculty members' perceptions of instructor teaching effectiveness, research activity, and availability to students within two disciplines (Human Sciences and Engineering). The research question for this part of a larger study was: do faculty and students have shared perceptions of faculty teaching effectiveness, faculty research activity, and faculty availability within each college/school affiliation? [See Apple (1996) for complete methodology.]

When data were analyzed, Human Sciences faculty and students’ responses varied significantly for twice as many items (25) compared with Engineering faculty and students (12). Human Sciences faculty rated themselves significantly higher for teaching characteristics than their students rated them while Engineering students rated their instructors significantly higher than the faculty rated themselves. No significant differences were found between faculty and student perceptions in either college as to the extent research detracted from teaching. However, there were significant differences found between students and faculty in both disciplines concerning availability.

Apple, L. M. (1996). Student and faculty perceptions of university faculty regarding teaching effectiveness, research activities

RACHEL'S RAINCOAT

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The purpose of a senior student's research project was to develop a secondary inclement weather garment and self-packaging system. The coat needed to be stylish and waterproof but allow body vapor to escape. It had to protect the wearer and be portable, packable, and self-contained.

Design elements included a hood, collar, sleeves, A-line silhouette, pockets, and closures. The visored hood was designed in a close-to-the-head style which could be rolled into itself and stored between the collar layers when not in use. The self-containment feature was a pouch sewn into the bottom edge of the lining. When not in use, the coat could be pulled into its self-pouch for storage.

Two prototypes were made and seam sealed. Questions regarding rain wear were administered to the focus groups who also completed on-site prototype evaluations.

Ten coats were produced for the 20-day wear test. Wear testers were asked to evaluate overall satisfaction, comfort, fit, and storage.

The coat is being mass-produced for sale through the campus bookstore.

TRANSFORMING GENDER THROUGH CRITICAL RESEARCH: AN ANALYSIS OF ENACTED ATTRACTIVENESS AMONG UNDERGRADUATE COLLEGE WOMEN

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Recent feminist literature has focused attention on the role of dress and appearance in the reproduction of American patriarchal structures. While many women have intellectually embraced feminist ideology, their dressing habits and appearance wed them to past gender constructions. While women may be emancipated intellectually, their motives as expressed through dress styles still remain within a paradigm of measuring success by attractiveness and beauty.

Research has indicated that college women continue to graduate ill-prepared for careers due in large part to peer pressure to measure success based upon the ability to attract a desirable male partner. Holland and Eisenhart's (1990) research found that college women rely almost entirely upon measures of sexual attractiveness to assess their value. Commitment to the education process and to career goals tend to erode, leading to marginal careers and reliance upon a male partner for economic security.

My research used a critical social science approach to initiate self-reflection and change regarding attitudes toward success and attractiveness among undergraduate female students. 18 participated as a part of a Social Psychology of Dress class. They read Holland and Eisenhart's Romantic Education: Women, Achievement, and College Culture and designed related original research projects exploring versions of female attractiveness enacted on the campus. All research projects were discussed and analyzed in class, resulting in heightened awareness of the role of attractiveness in women's lives and its impact on career aspirations and life-long goals.

All students were required to submit a self-reflective essay describing the impact of the project on their own attitudes and goals. The students were asked to analyze the motivations behind their dress style and its relationship to the studies presented in class.

Results indicated the potential for initiating change through critical research. Attitudes toward romantic relationships, feminism, athleticism, leadership, academic success, and career aspiration were all explored and related to versions of attractiveness expressed through campus dress. Essays written by the students were thoughtful explorations of their own style of attractiveness and its relationship to internal measures of value and success.

EDUCATIONAL RESEARCH
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The focus of the presentations was educational research. The papers presented utilized various research methodologies. Laurie Apple's paper compared student and faculty perceptions of teaching effectiveness and availability in two disciplines. She utilized quantitative research. This paper has significant implications for recognition of effectiveness of teaching excellence in tenure and promotion-related issues.

Annette Lynch utilized the critical approach to analyze perceived attractiveness among college women. Karen Schaeffer presented a paper on a student's project on developing a raincoat. Their approach was eclectic and effectively combined empirical and qualitative methods and illustrated integration of skills through student projects.

Until recently, the predominant method of social science inquiry was quantitative. Recent approaches include qualitative and, most recently, the critical approach. Discussion in this session centered around the applications of these research approaches in apparel and textiles. Advantages and disadvantages of each approach were discussed. It was recommended that an eclectic approach to research and pedagogy should be emphasized, especially in teaching because of the diversity of learning styles of students.

DESIGNING UNDER GOVERNMENT CONTROL: LIMITATION ORDER 85
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When the United States entered World War II, President Roosevelt created the War Production Board (WPB) and gave it authority over virtually every resource and manufacturing facility in the nation in an attempt to balance growing material demands with limited resources. The United States quickly became the "arsenal of textiles, clothing, and leather" (Walton, 1945, p. 31) as it sought to provide apparel for millions of American soldiers and civilians as well as Allied soldiers and civilians. Realizing that women's apparel consumed a generous portion of the nation's wool and cotton, the WPB issued Limitation Order 85 (L-85) on April 8, 1942 in an attempt to conserve fabric and avoid apparel rationing. L-85 did not limit fabric yardage but achieved the majority of the conservation with styling limitations supplemented by yardage regulations for trims. The purpose of this research was to examine the history of the L-85 regulations including the philosophies of their formation, adjustments in the orders, the response of retailers and designers, and the struggle to have the orders repealed at war's end.

In 1941, the government warned that apparel regulations would be forthcoming so Stanley Marcus, who directed the development of L-85, called together industry leaders to formulate workable guidelines. Marcus realized that, with a manpower shortage, the only way to enforce the regulations was through public policing of styling. Marcus used the media to reassure the public that fashion would be regulated but not rationed. Initially the industry promoted L-85 designs as patriotic, and by 1943, designers voluntarily trimmed styles even further. Several adjustments to the L-85 order followed including the establishment of a "body basic" silhouette, and the industry complied. By Spring 1945, the industry complained that it needed the regulations lifted in order to compete with liberated Paris so Marcus returned to Washington and campaigned to lift the regulations. Though some restrictions were eased, the limitations were not completely lifted until October 24, 1946.


GARMENT 2000 RESEARCH RECOMMENDS "MADE IN SAN FRANCISCO" PROGRAM
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In 1994, GARMENT 2000 was launched with the collaboration of the San Francisco apparel industry in conjunction with the U.S. Dept. of Labor, local government, and educators to improve the local apparel industry's competitiveness. The purpose of this study was to gather baseline information for future comparative studies, to assess the current workplace status, to develop appropriate training, and to make recommendations to the industry. 245 apparel operators, 25 contractors and 25 manufacturers located mainly in San Francisco were surveyed. Questionnaires
were developed with input from industry liaisons as part of G2000.

Three main themes surfaced from findings: (1) Offshore and Competition Factors/Quality. Both contractors and manufacturers saw competition from off-shore as an obstacle to success. Quality of workmanship and turn-around time were most important factors in keeping production in San Francisco. Quality control was seen as one of the most important services to offer to enhance competitiveness. (2) Skilled Labor. Success was seen as related to a skilled workforce and management. Finding reliable contractors was the challenge for manufacturers. Contractors saw the need for cross-trained workers as a change in the industry and employee turnover with a lack of skilled replacement as a challenge. The operator data confirmed this, showing little skill flexibility. (3) Government Regulation. Government regulation and enforcement was seen as an obstacle to the success of contractors and a change in the industry (but compliance is high).

With the assistance of funding from the U.S. Dept. of Commerce, a program called “Made by the Bay” is marketing San Francisco-made apparel. In the development stage, it is unique in terms of substantial local support for national promotion of its product. With high government compliance, quality and fast turn around, San Francisco companies can be competitive.

A MODIFIED PROTOCOL TO PREDICT THE ELECTROSTATIC PROPENSITIES OF THERMAL-PROTECTIVE FABRIC SYSTEMS

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This research addresses the problem of electrostatic charge generation on clothing systems. Transfer of charge from clothing to the human body occurs readily as the body is a good conductor and can store large amounts of charge. The hazard of sparks from the body is a concern for workers in explosive environments such as those found in the oil and gas industry.

A test method was developed to determine the relative electrostatic hazard associated with different thermal-protective clothing systems by simulating garment layer separation on the human body. Rubbing speeds and pressures were varied to determine a combination that best represents such separation. A conducting plate carries the charge, generated from friction between two layers and transferred to the inner layer, to a capacitor which represents the human body, where it is stored. The capacitor is discharged, the discharge potential measured, and discharge energy calculated. Correlations between test data and data from human subjects removing parkas were better under some conditions than others, suggesting that the optimum protocol may not have been fully realized in this study.

Experiments were conducted to determine effects of humidity on electrostatic properties and on the differences in such properties among garment systems. Different forms of water within the fibers may partly explain the differences found. Greater differentiation among systems was found at 0% RH than at 20% RH.

FABRIC HAND EVALUATION: PERCEPTION AND INSTRUMENTATION

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This interdisciplinary study compares different methods for evaluating fabric hand: (a) a fabric fingerprinting method developed by Pan, Zeronian, and Ryu (1993), (b) a fabric sorting method whereby consumers group fabrics as a function of tactile properties, and (c) a cluster analysis. Sixteen test fabrics varying in fiber content and fabric structure were analyzed using the fabric fingerprinting method. A number of physical parameters were obtained to characterize the fabrics. The plotting of these parameters resulted in a unique visual profile or fingerprint for each fabric. Male and female adult subjects (n=119) individually sorted the fabrics into groups according to the feel and provided descriptive terms for each group. A cluster analysis identified common groupings of fabrics and the most frequently used descriptive terms.

The resulting clusters were compared to the fingerprinting profiles of the individual
fabrics within the cluster. This comparison involved an interpretive, visual assessment of similarities among fingerprint profiles. This fabric fingerprinting profile analysis (FFPA) enabled us to compare the congruence among the physical parameters within the consumer-generated clusters. This analysis revealed some remarkable similarities among the fingerprinting profiles of the fabrics that clustered together. The descriptive terms were also found to be similar for the fabrics that clustered together.


IMPROVEMENTS IN FABRIC POROSITY MEASUREMENT

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The objectives were to assess relationships between air permeability and porosity measurements of selected woven fabrics and to evaluate the use of a standard air permeability test in determining fabric porosity and pore structure. Porosity was defined as the size, distribution, and geometry of voids within the fabric, and permeability was defined as the accessibility of those voids to air flow.

The porosity of 10 woven fabrics that differed in weave type, fiber content, weight, thickness, and/or cover factor were measured using a liquid extrusion porometer. In this method, fabric samples are wetted and porosity is measured as a function of air flow as the liquid is extruded under increasing air pressure. This allows the determination of pore size since large pores empty under lower pressure and smaller pores empty as the pressure is increased. The liquid extrusion method is effective but time-consuming.

A standard (Frazier) air permeometer was used to measure air permeability of the fabrics, initially at the standard pressure of 12.7 mm of water. Then measurements were taken across the widest possible range of pressure drops. Air flow/pressure drop plots were compared with graphs of the porosity measurement data. In most cases, changes in slope of the air flow curves corresponded with porosity measurements of minimum, maximum, and mean flow pore sizes.

Results of the study showed that the air permeability method can be effective in measuring fluid flow. This provides an estimate of pore size and pore size distribution.

EFFECTS OF ACADEMIC SERVICE LEARNING ON UNDERGRADUATE MERCHANDISING STUDENTS

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The purpose of this study was to identify the effect of academic service learning on undergraduate merchandising students. Developing skills in the distribution of recycled apparel was a secondary purpose of the study. Academic Service Learning is the blending of academic learning in a community environment.

The sample was comprised of 22 undergraduate students enrolled in an introductory merchandising class volunteering in the distribution of recycled merchandise for profit and non-profit. Pre- and post-test data was collected on students' attitudes/values in making a community a better place to live, civic duty, and perceptions of issues/problems related to apparel. Most items were 5-point Likert type scales with comments encouraged. Given the significant difference in post-test scores, it is clear that universities can justify academic service learning as a desirable teaching/learning method in the future.

PRACTICING WHAT WE PREACH: A COLLABORATIVE EFFORT BETWEEN INDUSTRY PARTNERS AND COMMUNITY SERVICE

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Concepts on apparel production methods, processes, and systems are taught in an apparel manufacturing course. The primary class project goal was to provide students experience on industrial equipment. Project benefits were industry-partner recognition and community service.

The project used an in-kind donation of top-weight fabric. A garment was produced, then donated to a local women's organization. The creative teaching strategy was implemented by (a) discussing ways to combine lecture material with the laboratory practical application, (b) informing the apparel manufacturer that donated the in-kind fabric of its use, and (c) having students identify local women's
organizations that could best use the project donation.

Student groups wrote instructions for cutting, bundling, and assembly sequencing. The pieces were cut then assembled using the bundle, UPS, and modular systems. Students rotated positions among supervisors, operators, and inspection auditors. They discussed advantages, bottlenecks, methods, and engineering challenges using the different systems.

The course project successfully applied practical application to lecture material. Students synthesized different production methods and concepts. The apparel company was pleased with the use of its in-kind donation, and the project was a good public relations opportunity. The students were challenged by assembling a garment for a real customer and were conscientious about producing first-quality garments. Students were pleased to donate the garments to the local women's organization. The instructor felt that the project's objectives were met and plans to continue the project.

**SERVICE LEARNING: A TEACHING COMPONENT THAT EXTENDS THE CLASSROOM**

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A Service Learning component was added to the apparel design curriculum. This new program allowed students the opportunity to apply what they learned in the classroom in the community. The challenges encountered were then brought back to the classroom.

Under the guidance of the professor and the Citizenship and Service Learning (CASL) liaison staff, the students in a draping design class were able to experience first-hand the needs of adults at a local care facility who were in various stages of Alzheimer's Disease (AD). Through observing the patients while they were eating, it was possible to identify three major elements which would be necessary for the design of a fabric garment protector that could be used at meal times or when participating in craft activities. The design elements included (1) choosing fabric that was washable and would withstand harsh detergents and bleach, (2) choosing fabric that was not abrasive, and (3) choosing a design form that would preserve the self-esteem of the Alzheimer's patient.

The teaching/research design incorporated the study of an aging population's needs, research on the stages of Alzheimer's Disease and its effect on bodily function, and the development of prototype cover-ups. It is anticipated that the cover-ups could also be used by patients that are afflicted with other forms of dementia and restricted movement.

**AN INVESTIGATION OF THE EFFECT OF JEAN PURCHASE CRITERIA ON STORE SELECTION AMONG TEENAGERS**

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The specific purpose of this study was to examine the effect of jean purchase criteria on store selection among teenagers. The sample for this study consisted of teenagers aged 14 to 18 years who were enrolled in a required Economics course. Four high schools, representing each geographic quadrant of a large southeastern metropolitan city, were selected.

The self-administered research instrument contained six sections; only two of the sections (jean purchase criteria and store shopped) are reported here. A 3-point Likert scale was used to examine the importance of six jean purchase criteria (price, quality, style, stone-washed, brand name, and store name). Store selection was examined by having respondents indicate their store of choice for a jeans from a list of 11 stores.

The list of stores shopped was collapsed into four categories: department, specialty, discount, and other. Analysis of Variance (ANOVA) was used to examine the effect of jean purchase criteria on store selection. Results indicated that both price \((p=0.0392)\) and style \((p=0.0501)\) were significantly related to department store shopping. Respondents indicated that, as price increased in importance as a criterion variable, selection of a department store for jean purchases decreased. This indicates that if price is an important criterion in jean purchase decisions for teens then department stores may not be the type of store selected for a jean purchase. No differences existed between groups using style as a criterion variable. There was also a significant relationship between brand \((p=0.0000)\) and "other" as a store shopping choice. Differences between groups indicated that as the importance of brand name increased, the selection of "other"
store types (i.e., store types which cannot be classified as either department, specialty, or discount) decreased. This finding indicates that if brand name is an important criterion, then teens are less likely to shop "other" types of stores. For department and specialty stores, this finding is important because it indicates the importance of carrying the jeans desired by their respective target markets.

**MERCHANDISE ASSORTMENTS: VSA IN RELATION TO INITIAL MARKUP BASED ON MERCHANDISE PLANS**

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Balanced assortments offer enough product to meet consumer demand without causing excess inventory. No tool exists to assist merchandisers assessment of balanced assortments during the planning process.

Rupe and Kunz (1998) proposed VSA, volume per SKU for an assortment, as an assortment dimension and a predictor of potential financial productivity. The objectives were to test the viability of VSA, volume, and variety as measurable dimensions of an assortment; examine VSAs relationship to initial markup; and propose implications for use during assortment planning. Based on the review of literature, two hypotheses were generated: (1) there is a significant relationship between VSA and each of the assortment measures of variety, volume, and mean first price and (2) there is a significant relationship between VSA and initial markup.

Data were donated by Ramal, a pseudonym for the cooperating retailer on this project. Assortments were operationalized as each unique department, class, and subclass combination. For each assortment, volume, variety, VSA, mean first price, planned sales, cost of goods, and initial (dollars and percent) were calculated. To test hypothesis one, correlations were calculated. Correlations and ANOVA using curvilinear models were used to test hypothesis two.

Assortments within eleven departments were analyzed. The assortments in eight departments were significant for VSA and initial markup dollars; assortments in six departments were significant for VSA and initial markup percent.

VSA showed promise as an indicator of potential financial productivity. SKU level analyses during planning may prove valuable to merchandising professionals and scholars.


**MODERATING EFFECT OF STORE TYPE ON CONSUMER SATISFACTION AND QUICK RESPONSE TECHNOLOGY BASED DISCONFIRMATION**

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Consumer satisfaction (CS) is considered as an indicator of returning consumers and is a key objective in modern retailing. For increasing CS, QR technology (QRT) is often used by apparel retailers and other segments of the industry. Testing the actual impact of QRT on CS is important since retailers are making large capital investments in QRT. Store type was also considered an important moderator in this research.

The purpose of this research is to investigate the moderating effects of store type on CS and QRT based DC with a retail store. The conceptual framework was based on CS theory (Oliver, 1980). A convenience sample of 200 female apparel consumers was selected from a southeast city in the U.S. The survey of design with a questionnaire was employed and descriptive statistics and ANOVA were used for data analysis. The response rate was 86.2% for 200 responses.

Store type was related to the level of QRT based DC, which determines CS. The store type was a significant moderator between CS and QRT based DC with an apparel retail store. CS with specialty chain and small independent stores was less influenced by QRT based attributes than CS with department and discount stores. This result might be explained by the theory that consumers' expectation about store attributes are different by store type. Therefore, different strategy is recommended for the different types of apparel retail stores. The information is valuable to retailers who wish to evaluate the effects of their strategic planning.

APPAREL RETAIL STORES: STORE OPERATION AND THE IMPACT OF STORE TYPE

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The three papers presented in this session addressed diverse research questions related to apparel retail stores. Farr and Kunz focused on store operation whereas the other two studies were concerned with the impact of store type on consumer behavior variables. All of the studies employed quantitative methods and analyses.

Specifically, Farr and Kunz attempted to assist apparel retailers' assortment planning process through the assessment of the viability of volume per stock keeping unit (VSA) as an assortment measure. They observed some interesting relationships between VSA and several other assortment dimensions.

The other two studies underscored the importance of understanding how consumer perceptions and behaviors differ by store type. Ko explored the moderating effect of store type on the relationship between consumer disconfirmation and satisfaction. This study demonstrated that store type influences the degree to which consumer disconfirmation of prior expectations of QRT-based store attributes diminishes their overall satisfaction with a store. In examining the relationship between apparel product purchase criteria and store patronage, Thomas and Woodard focused on a specific consumer market as well as a specific apparel product category. Teenagers and jeans were chosen as the focus of this study. Their findings corroborated those of previous studies indicating significance differences in apparel product purchase criteria among consumers patronizing different types of stores. Results from these studies provide several contributions to retailing and consumer research. However, more attention should be given to the discussion of implications for apparel retailers.

APPAREL CONSUMER STOCK-OUT BEHAVIORS

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Being out of a desired item can have negative effects on clothing retailers who may lose a sale or customer loyalty with the problem. Yet, most stock-out studies have focused on only a narrow range of products such as packaged foods and other daily goods. This study begins to fill the gap by examining how apparel consumers may react to a variety of stock-out situations.

Questionnaires were distributed to a convenience sample of 110 college students, and 79 useful ones were returned. Each questionnaire consisted of four stock-out scenarios followed by open-ended questions asking the consumer how she/he would respond. Two scenarios were designed to uncover actions resulting from stock-outs, another was designed to examine the impact of stock-out on store image, and a final scenario elicited possible substituting behaviors under stock-out conditions. Data were coded and analyzed by two researchers to identify most frequent responses. Inter-rater reliability of 82.9% was achieved.

The range of stock-out actions reported was greater than those found in previous studies. The most frequent action, with regard to purchasing jeans or coats, was to have the store call other store locations to look for the item. When buying jeans, some consumers were willing to wait for the next shipment. Substitution occurred infrequently under apparel stock-out situations. These findings are very different from those found in studies of food and other daily products. When apparel consumers did plan to make substitutions, they would substitute items with different extrinsic attributes such as brand, rather than substitute for products with different intrinsic attributes such as color and style. Stock-outs, while creating disappointment, do not appear to negatively tarnish the store's image if they happen infrequently or if the sales person provides assistance in finding the desired item.

APPAREL QUALITY INDICATORS: PERCEPTIONS OF MALE AND FEMALE SHOPPERS

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Judging textile product quality is a challenge for most consumers because of the difficulty of determining performance and overall quality in a store setting. The purpose of this study is to describe apparel quality indicators as perceived by male and female shoppers.
A random sample of 1,000 was selected from telephone subscribers in five major cities in Louisiana. A mail survey consisting of four scales was used to collect data. Instrument reliabilities (Cronbach's alpha) were as follows: Quality indicators $\alpha = 0.78$, fiber content $\alpha = 0.86$, store type $\alpha = 0.69$, and garment labels $\alpha = 0.70$. Data were analyzed using SAS and included descriptives, reliability, factor analysis, $t$-tests, and analysis of variance.

The response rate was 16%. Sixty-nine percent of the respondents were female and 31% were male. Findings of this study indicate that consumers mainly used intrinsic cues to evaluate the quality of apparel. Garment fit and price were perceived as the most important indicators of apparel quality. Fiber content, fabric type, color, and yarn type were perceived as important, while seal of certification, store image, brand name, and country of origin were less important.

Gender was significant in the usage of label information with females looking for fiber content and care symbols more often than males. Country of origin was perceived as more important by older subjects than the younger subjects. Older subjects and people with more education read and followed care label instructions more often than younger subjects.

SEGMENTING THE COLLEGIATE MARKET FOR JEANS USING A PRODUCT/BRAND INVOLVEMENT MODEL

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The Product-Brand Involvement Model (Cushing & Douglas-Tate, 1985) was used as a theoretical framework to segment the collegiate market for jeans and to profile each segment in terms of clothing orientations, sources of brand information, and the importance of certain jeans attributes.

A total of 615 usable surveys was collected from 66 undergraduate classes selected systematically from the schedule book of a large southwestern university. Mean scores served as the cutoff point for classifying respondents into four groups based upon the respondents' perceptions of product and brand importance: High Product/High Brand Involvement (39%), Low Product/Low Brand Involvement (23%), Low Product/High Brand Involvement (21%), and High Product/Low Brand Involvement (17%). Using income as a covariate, multivariate analysis of covariance revealed that the four groups were significantly different in terms of clothing orientations ($p < .05$), information sources ($p < .001$), and the importance of jeans attributes ($p < .001$). Univariate analysis of covariance with the Scheffe test was conducted to examine group differences in relation to each factor. For example, college consumers who exhibited high product/high brand involvement for jeans were the most brand and fashion conscious and the least concerned with price.


BODY WEIGHT, BODY IMAGE, SELF-ESTEEM, AND SOCIAL COMPARISON IN FEMALE KOREAN COLLEGE STUDENTS

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The purpose of this study was to examine the relationship of body weight and body image, self-esteem, and social comparison in Korean female students. 219 Korean female college students completed a self-administered questionnaire. Multivariate analysis of variance was used to analyze data.

The results of this study showed a relationship of body weight on self-esteem and on body image but no relationship on social comparison. The underweight subjects showed higher self-esteem, more positive evaluation of their physical appearances, and a higher satisfaction with most areas of their bodies compared to normal weight subjects. The normal weight subjects tended to report more concern about their weight compared to the underweight subjects.

Women have typically internalized the message that thinness is good, as evidenced by the fact that being underweight contributed to higher body satisfaction and higher self-esteem. To attain the ideal body weight, women may often engage in appearance management behaviors such as dieting, exercise, and even plastic surgery to reduce their body fat. Therefore, it may be useful to conduct further study related to body weight, body sat-
isfaction, and appearance management behaviors.

SELF-DISCREPANCY AND BODY IMAGE AS A FUNCTION OF APPEARANCE SELF-SCHEMA

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In contemporary U.S. culture, criteria for the cultural ideal for women are narrowly set at high standards; thus women are likely to feel self-discrepancies between their actual self and ideal self on the domain of appearance. The extent to which a woman feels discrepancies on a domain seems to depend upon whether she has a self-schema for that domain—how well the particular domain is elaborated in her mind through past experiences and is accessible in information processing. This study predicted that the extent to which women feel discrepancies on appearance would be related to the degree to which they generalize the domain of appearance (i.e., appearance schematicity). In addition, a negative relationship was predicted between women's discrepancies on appearance and their body satisfaction.

A survey questionnaire was used as a method of data collection. Among a total of 115 female college students, data completed by 95 subjects (average age of 21 years old) were analyzed. Instrumentation included measures of self-discrepancy, appearance schematicity, and body satisfaction.

As predicted, the higher discrepancy scores between the actual and ideal self on the domain of appearance indicated the higher appearance schematicity scores and the lower body satisfaction scores. Findings indicate that the extent to which women feel discrepancy and dissatisfaction with their bodies in relation to their ideal images may be dependent on how schematic they are to the domain of appearance. If that is true, one's own life experiences are important in shaping one's body image.

THE BODY IMAGE OF ASIAN AMERICAN COLLEGE STUDENTS IN A MULTI-ETHNIC CONTEXT OF A MID-WESTERN CAMPUS

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The current study examined the influence of the ethnic identity of Asian Americans and their appreciation of their ethnic body features, based on reference group theory and social comparison theory.

The data were collected from a convenience sample of students (60 men and 52 women) from various Asian ethnic groups attending the University of Wisconsin. A two (gender) by two (low/high ethnic identification) by two (American/Asian social group affiliation) analysis of covariance was conducted on body image satisfaction with Body Mass Index score as a covariate.

The main effects of gender \([E(1,90)=7.00, \ p<.05]\) and ethnic identification \([E(1,90)=5.35, \ p<.05]\) were significant, which indicates that the more respondents identified with their ethnic group, the more likely they were to be satisfied with their appearances. The impact of ethnic identification was significant only in case the respondents socialize more with Americans than with Asians. Although the main effect of social group affiliation was not significant, the interaction between social group affiliation and ethnic identification was significant \([E(1,90)=4.60, \ p<.05]\).

The results support the idea that one's ethnic group functions as a reference group which affects body image appraisals. Specifically, those Asians whose reference group is American—i.e., identify themselves as Americans and interact more with Caucasians—are more likely dissatisfied with themselves than those whose reference group is Asian. The results suggest the importance of guiding these Asian Americans students to appreciate their own ethnicity and to find beauty in their appearances and of reminding them, as well as the general public, that ideals of beauty are socially and culturally constructed.
ANALYSIS OF MARKET FACTORS IN MANUFACTURERS' DECISION OF CAD/CAM ADOPTION

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The purpose of this study was to identify possible market factors that affect textile and apparel (T&A) manufacturers' decision to adopt CAD/CAM. The objectives were to determine the relationships between CAD/CAM adoption and internal and external pressure in the T&A Company's experience and to compare CAD/CAM adoption in companies with different size volumes.

A national sample was stratified by size and state. One hundred and three surveys were returned for a response rate of 20.6%. The smallest company had only five employees, and the largest one had 17,000 employees. The sales volume ranged from $1 million to $1.2 billion.

Principal component factor analysis with varimax rotation was performed to identify dimensions of reasons for CAD/CAM adoption. This procedure resulted in two factors with eigenvalues greater than one. Logistic regression was performed on three independent variables, the natural log of the sales volume, and the external and internal pressure factors. The dependent variable was the CAD/CAM adopters vs. non-adopters. The result of the logistic regression analysis is a model that is highly significant.

The external pressure factor and sales volume have a positive effect on CAD/CAM adoption. The internal pressure factor is negatively related to CAD/CAM adoption. This result is difficult to interpret in light of a possible bi-directional causal flow between these two variables. Since the apparel industry is labor intensive, it may be more difficult for companies experiencing higher internal pressure to adopt CAD/CAM since it would lead to reducing the number of workers as well as supervisors. This finding may be a reflection of companies with high levels of automation not being concerned about the labor issue. It is also possible that both situations are operating in different firms.

EMPLOYEES' EXPERIENCES IN THE SHIFT TO A TEAM PRODUCTION SYSTEM IN A SEWN PRODUCTS PLANT

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Using a case study approach, this research explored experiences of employees in a sewn-products factory that changed from a line-production system to a modular production system. Personal interviews were conducted with 16 employees over a two-week period in 1998. About 200 people are employed in the plant, located in a rural area of a mid-western state. It was built in 1960, and until 1990 it operated as a traditional line system with employees paid on a piece rate basis. The transition to teams throughout the plant occurred over a two-year period.

The effect on employees' work lives has been dramatic. Specific changes include an hourly wage with bonuses, flexibility in the work environment with less rigid rules and absence of time clocks, and empowerment of employees to make decisions as a team. Many employees reported (a) feeling less stress than they did under the old system, (b) pride in their work resulting in dramatic improvement in product quality without sacrificing productivity, and (c) general satisfaction in working in a team, particularly in being cross-trained to work at several operations. A number of employees expressed frustration that the wage structure was not clear and that their wages were not tied to overall improvements in plant productivity.

Two of the 16 participants had little positive to say about the team system of production. Most, however, viewed the modular system, while far from perfect, as superior to the traditional line system of production and expressed feeling personally valued for their contribution to increased plant productivity.

DEFINING THE CONSTRUCTS OF TOTAL QUALITY MANAGEMENT IN NC SEWN PRODUCTS MANUFACTURING

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A TQM change involves all people in a coordinated effort to improve performance at every level. TQM affects organizational culture as well as the values, beliefs and expectations of members. The purpose of this study was to
identify the components of TQM among NC sewn products manufacturers and to examine inter-relationships between 10 identified TQM practices.

The 10 variables identified were defect level, product quality approach, equipment investment, production priorities, responsibility for quality, pay incentives, responsibility for inspection, process control measurement, degree of repair/rework, and production standards. These were placed on a 5-point Likert scale to rate relative importance to TQM adoption. A survey questionnaire was mailed to plant managers at 430 NC sewn product manufacturers with more than 25 employees. Adjusted response rate was 32% (n=143). Factor analysis with varimax rotation was used for data analysis to determine the number and nature of the constructs that underlie a set of variables.

Ten TQM variables were reduced to seven and had an average equal loading of 0.63. The three variables that were excluded were equipment investment, pay incentives, and production standards. A low loading on equipment investment could mean that purchasing decisions are not made often. Pay incentive structure could be tied to traditional piecework compensation methods. The low factor loading of production standards is encouraging because it shows the focus of customer-driven quality. This study contributes instrument and theory development that is supported with empirical testing and is industry-specific.

BODY MODIFICATION/BODY MANAGEMENT: THE EMPOWERMENT VS PATHOLOGIZATION ARGUMENT

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The purpose of this paper is to (1) provide a comparative overview of many of the arguments currently being waged in the literature about body modification/body management and its "true" social meaning and to (2) note briefly the historic and cross-cultural context for the arguments. (Body modification in this context refers to piercing, tattooing, cutting, plastic surgery, and items of fetish dressing such as corseting).

On one hand are the pathologization arguments wherein body modification is described and analyzed using such loaded terms as mutilation, pain, and restricted physical mobility. Theorization focuses on how the body is regulated and disciplined to a racially-biased Caucasian ideal or on the degree of anti-feminism involved or how technology is obliterating the natural body. This set of arguments tends to have more influence in the academic literature. On the other hand are the empowerment arguments, wherein those who undergo such procedures talk about taking control of their body and its pleasurable sensations or how they are feeling better about themselves, becoming more exhibitionistic and/or subversive and enlarging their sense of play. Often this literature is populist, personal, and/or anecdotal.

Both of these arguments tend to be somewhat ahistoric, assuming such modifications are an invention of recent technology combined with the unique social and media pressures of the late twentieth century and lacking the cultural contexts of such body modifications of the past.

RATIONAL FOR DRESS CODES STATED IN STUDENT HANDBOOKS

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Significance. Dress codes are contentious because of a belief they deprive students of a constitutional right to freedom of expression. The goal of a safe environment conducive to learning has renewed interest in dress codes as a way to manage student behavior. "Any restriction on student dress must have a legitimate educational rationale" ("Model Guidelines," 1992, p. 11). The purpose of the study was to examine rationales for dress codes in school handbooks.

Method. From a population of 803 secondary schools in a midwestern state, a representative sample of 300 was chosen. A single mailing requested the 1997-98 student handbook. Handbooks were content analyzed for a dress code and stated rationale.

Results. Responses were received from 183 schools (61% return rate). Of the 183 respondents, 99% had a dress code. Of the 182 schools with a dress code, 80% had one or more stated rationales, including students' right to an education (n=111) and/or students' right to a safe environment (n=99). Seventy schools included other rationales.

Implications. A concern over school safety (gang activity, random acts of violence)
has resulted in a renewed emphasis on dress codes as a means for managing behavior. Presumably some schools included statements of legitimate educational rationales so the dress codes would more likely be upheld if subjected to a legal challenge. However, evidence existed of vague wording in the dress codes that may lead to legal challenges.


**AN INTERACTIVE CD-ROM**
**TO ENHANCE COMPETENCY OF VISUAL AND PRINCIPLES OF DESIGN**

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*Importance of visual and musical elements and principles of design. A recent assessment of textiles and clothing programs in the United States showed that a majority of these programs required competency (application of knowledge) of visual elements and principles of design (Laughlin & Kean, 1995). However, competency of both the visual and musical elements of design (e.g., musical pitch, rhythm, melody) will better prepare students for an array of professional positions involving the development of multisensory promotional environments such as store settings and advertisements.*

Innovative use of technology. We developed an interactive CD-ROM (Compact Disc-Read Only Memory) to assist students in understanding and implementing visual and musical elements and principles of design. This learning technology presents concepts interspersed with activities to engage the student and to aid in the understanding and application of the concepts. Many times the activities take the form of professional applications, such as the development of textile patterns or apparel products.

*Strategy to foster desired outcome. A student-centered learning strategy, where the student progresses through the material at her/his own pace and receives immediate feedback on the correctness of response, helps to ensure understanding. The application of concepts along the way helps to ensure competency. The CD-ROM will be available to departments using either PC or Macintosh plat-
DEVELOPMENT OF "NEW" PATIENT CARE GOWN

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The purpose of this research was to develop a patient care gown which was functional, attractive, and easy for patients to use. The review of literature assesses research studies of hospital gowns designed for the well-being of the medical profession and patient. The well-being of the individuals include the hospital gown's comfort, protection from contamination, and financial considerations.

The method included four sequential phases. Phase one developed a survey instrument. The second phase included the analysis of data collected to determine the components of the new hospital gown. In the third phase, a one-piece gown was developed from the data. Individuals of different gender, age, weight, and height wore the gown and responded to a 5-point Likert type scale with comments requested. The information gathered was incorporated in a modified hospital gown which was validated by another group of individuals. Phase four included the placement of the hospital gown in a volunteering medical facility. The 5-point Likert type scale was used to compare the new gown with their facility's existing gown. Surveys identified desirable components: convenience of gown that slips on and off easily, adjustable fit, offers psychological comfort, physically covers the body, allows for health care professionals to perform examinations, and fabric that is comfortable, opaque and easy to clean.

EAST MEETS WEST: COMBINING THAI AND AMERICAN DESIGN INFLUENCES IN WEARABLE ART APPAREL

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The purpose of this design research was to create a line of dresses that represented a manifestation of the mixture of Thai and American cultures. The dress silhouette was western (ubiquitous short, slightly A-line little dress), the silk fabrics were hand-dyed in a two-color gradation, and a traditional Thai four-petal flower motif was silk-screened at the hemline of each dress. The gradation dyeing was intended to symbolically represent the distinct presence of two differing cultures (a different hue at each end) and the confluence or overlap that occurs when the two cultures merge (blended area of the fabric in the middle where the two colors overlap).

Six dresses were designed and produced for this research. Each dress had slightly different structural elements in neckline shape, waistline strategy, and hip treatment. Garment drawings and the silk screen design motif were generated using a CAD system. Garment patterns were created using traditional pattern drafting methods.

Gradation dyeing presented the greatest challenge in this research. Following a systematic approach to timing facilitated an even distribution of dye. It was found that adding two inches of fabric for two minutes of exposure in the dye bath produced successful results. Use of a CAD system to explore color combinations prior to dyeing would offer more chance for variety.

EXERCISES IN CREATIVITY

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A seminar class called Creative Couture was offered to stress attention to detail and to stimulate creative thinking. Students were given four projects along with a number of sample assignments. Two of the projects were designed to foster creativity. The first of these was to create a garment using recycled objects. No restrictions were given as to what could be used. They had two weeks to complete the project. Students went to Goodwill and their own closets, and others asked the university community to assist in collecting items for their projects. The second project was a two-hour class project. Students were provided with a dress form, five plastic garbage bags of various colors, pins, scissors and transparent tape. They were instructed to create a garment using the plastic bags. The result was 16 very different creations.

Both projects were well received by the class. Students had fun completing the projects although they were not without frustration at times. This was part of the creative process. Students have suggested that these projects be included in future seminars.
The first project in addition to stimulating creativity, reinforced the environmental issues facing today's society. The second one fostered creative thinking and both projects presented issues that forced the student to think through the process first of creating garments from recycled objects and second creating something from an unusual material.

FASHION DESIGN EDUCATION: BEYOND GIVING INSTRUCTIONS

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Fashion design students are challenged to create garments that meet the needs of project requirements provided by the instructor. Educators teaching fashion design must prepare their students to meet these challenges by implementing various skills and techniques in the teaching environment. It is imperative that instructors create an environment that will motivate students to perform to go beyond the expected performance.

The purpose of this project was to motivate fashion design students enrolled in a fashion design class to design, make patterns, and construct garments that would meet industry and project standards provided by the instructor. Motivational factors included the involvement and performance of the instructor along with the student in comply with the same rules and to set as a good example the process to which the students are instructed to follow.

In one semester, senior level fashion design students were instructed to create garments for a collection they designed, culminating in using all the skills they have acquired in their college career. Their collections consisted of three-to-four complete outfits to include accessories and drawings. The instructor had to comply with the same rules and to abide by the same restrictions given to the students. The instructor had to create a collection that was beyond the guidelines given to the students to set an example the feasibility of the tasks required them to follow.

Overall, the result of this project were overwhelmingly positive and will be used in other courses requiring the production of projects.
depicting AIDS or racism with a positive copy or negative copy for each advertising). All four ads carried the same brand name in the bottom right corner. Each ad contained two pictures to eliminate any effect from pictures.

A total of 387 male and female college students enrolled in various courses in the area of marketing at a major Southwest university in Spring 1998 served as subjects in one of four groups, with each group viewing only one slide. The 24 items from the Wells' Reaction Profile were bipolar items with 8 point scales. The ad response items were factored into four factors: meaningfulness, attractiveness, vitality, and simplicity.

To test Hypotheses, a 2 (AIDS, racism) x 2 (positive framing, negative framing) multivariate analysis of variance (MANOVA) was run on the set of dependent variables (i.e., four factors of response to ad). There was a significance main effect of advertising framing and issue-by-framing interaction. Negatively framed advertising elicited higher scores on factors of “attractiveness” and simplicity.” With respect to interaction effect, higher scores on “attractiveness” factor were displayed with a negative frame than with a positive frame for the AIDS ad, while framing did not affect response to the racism ad.

The findings will not only enhance our understanding of the effectiveness of social advertising but also provide strategic directions regarding appropriate planning and execution of advertisements. Marketers and advertisers can also benefit to improve their image in the marketplace and to stay on the competitive edge within the industry.

EXPANDING STUDENT AUDIENCES: "INTRODUCTION TO MUSEUMS" AS A TEXTILES AND CLOTHING CLASS

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Meeting educational objectives and contributing to an institution's strategic plan is critical to continuance of TC programs. This can be met through classes that increase our visibility across campus, meet our educational objectives, and emphasize the interdisciplinary nature of the discipline.

Intro. to Museums is a second year, 3-credit TC class (no prerequisites). We explore museum operations, careers, programming, and the future of museums. The team-taught course uses the expertise of the university museum director, the museum's educator, and a faculty member with museum expertise. Museum staff teaches, organizes speakers, and arranges field trips. The faculty member prepares the syllabus, facilitates class discussion, teaches, and grades all student work. Guest speakers include faculty from several departments and staff from local museums. A geologist discusses field collecting for natural history museums. A costume historian discusses her research using museum objects. A museum director presents exhibit design and installation. A curator discusses collection management and curatorial activities. An educator describes museum education. The development officer of an art museum talks about fund raising. Field trips to the state historical museum, an art museum, and an interpretive site augment class content.

Students from history, education, TC, fine arts, anthropology, journalism, theater, and biology enroll. We announce the class through fliers posted on campus bulletin boards. The class meets weekly for three hours in the university museum. Grades are based on evaluations of museum visits, a museum educational experience, and quizzes. Students attend four programs offered by the university's museum. Each student researches a museum object. Student groups develop educational materials and an exhibit of their objects and host a public reception.

CASE STUDY DEVELOPMENT FOR SOURCING APPAREL IN INDONESIA AND INDIA

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Approximately 40% of apparel consumed in the US is imported. Thus, increasingly, U.S.-based firms seek personnel who understand international sourcing of textiles and apparel. Students aspiring to these positions must be educated on issues such as international business practices, the effect of ethnicity on such practices, and sourcing challenges.

As industry issues become increasingly global, students benefit from learning complex problem solving. Case studies encourage linking theory and practice, provide realistic scenarios, and develop skills like group decision-
making. Indonesia and India share growing economies, vital textile/apparel industries, and multicultural populations. Because business practices (e.g., child labor, environmental protection, ethics) are viewed differently than in the U.S., Indonesia and India are societies with which students should be familiar.

Data on apparel sourcing in Indonesia and India were collected while assisting the production manager for a U.S. firm during a sourcing trip. The firm designs and sources garments sold to U.S. retailers and catalogs. Data, including interviews with production/exporting professionals and slides of production, components, and finished products, were incorporated into case studies presented on power point.

Business practices addressed included fabric selection and working with contractors purchasing fabric from firms violating environmental laws. Case studies are appropriate for classes on international production, sourcing and trade.

CREATIVE CONTINUING EDUCATION COURSES: SEWING CAMPS AND INTERNATIONAL SEMINARS

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The purpose of this innovative teaching and curriculum development project was to develop summer workshops and weekend courses for a variety of ages to become involved in hands-on education on a college campus. The objectives pertinent to both courses were to (1) be creative in planning learning experiences suitable to the participants, (2) design a short time frame for each course, and (3) use various marketing techniques to promote courses.

Three "Sewing Camps for Kids" courses were held during 1997 and 1998 for youth seven to fourteen years of age. Student projects for two levels of sewing included sewing techniques notebooks, beanie baby sleeping bags, shorts, skirts, and t-shirt designs. Students participated in fashion shows presented at the University Center and received certificates for completing the courses.

"Do's and Taboos of International Marketing and Travel" was taught three different times. Participants were members of the community as well as regular university students. Protocol, customs, gestures, body language, manners, gift giving/receiving, business ethics, and appropriate dress for 30 countries were discussed. Speakers, videos, and "Hyper Studio" computer programs were used to present facts and visuals about the various countries.

The indication of success from the written evaluations of students in both types of courses and requests for additional courses support the need for the development of future "Continuing Education" courses.

INTERNATIONAL ISSUES IN MERCHANDISING: A COURSE UNIT

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Our purpose is to describe a (undergraduate) course unit for use in the merchandising area. The unit was developed to facilitate integration of international and cultural issues into Textiles and Clothing (TC) curricula and to foster students' critical thinking skills.

The unit revolved around an in-class panel discussion about international issues in merchandising. International graduate students were invited to discuss merchandising in their home countries. Their discussion focused upon issues of pricing, merchandise assortment, sourcing, global outlook, retail formats, customer service, and merchandise promotion. Prior to the panel discussion, students read a related excerpt from Megatrends 2000 (Naisbett & Aburdene, 1990).

To demonstrate competency with key concepts, undergraduate students completed a two-part learning activity. In Part I, they completed a matrix (with cells for each country and topic discussed by the panel) to help them organize their thoughts and make cross-country comparisons. In Part II, they responded to essay questions in which they (a) recalled and applied content from the discussion and reading and (b) analyzed how global issues affect merchandising decisions. Undergraduates also completed an evaluation of the unit.

This unit engaged students in critical thinking processes such as (a) recognizing the importance of culture in international business transactions, (b) exploring alternatives to merchandising practices of the U.S., (c) integrating new knowledge from this unit and existing knowledge from previous coursework, and (d) working through decision-making processes in
which they developed suggestions for firms expanding abroad.

We present this unit as a model for other TC educators. We draw upon student evaluations and personal insights to offer suggestions for further development of the unit.


A SURVEY OF CURRICULUM DIRECTIONS IN RETAIL EDUCATION: AN INTERNATIONAL PERSPECTIVE

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With the continuous evolution of the market and its players, establishing relevance and rigor of retailing education necessitates periodical reevaluation of retailing curriculum and academic priorities. Given the long-standing tradition in offering retail programs in some other countries, an international survey was conducted among scholars from Europe, the U.S., and Australia. The goal of this study was to obtain retail educators' perspectives in regards to the current state and future directions of retailing curriculum development, theoretical foundations, and quality of retailing research as well as general trends in academic environment in the retailing arena.

The analysis of survey results indicated that the changes in retail curriculum and research would be of evolutionary rather than revolutionary nature. Respondents believed modifications are needed with respect to evolving instructional formats, various pedagogical issues, and emphasis in specific content areas within retailing courses. Existing retailing research was criticized with respect to research methods utilized and its relevance to retail stakeholders. In contrast, issues such as relative importance of broad topical areas in curriculum and research, various theoretical perspectives towards retailing, and the relative impact of the stakeholders need no major revisions.

CAREER SEARCH STRATEGY: A TEAMED APPROACH TO RESEARCHING COMPANIES

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In advocating the company research process in the merchandising curriculum, a teamed career search strategy assignment was developed and implemented to ensure that students understand, conduct, and utilize comprehensive, informed, and systematic job searches. Research teams are allotted two weeks to gather pertinent information about the company, compose the written report, and prepare the oral Powerpoint presentation. Mandatory topics covered in the written report and oral presentation include (a) company ownership, history, and strategies, (b) executive biographies, (c) corporate culture, (d) management/employee data, (e) financial data, (f) employee benefits, (g) internship opportunities and entry-level positions, (h) salaries, (i) industry ranking, (j) industry outlook, and (k) procedure for making initial inquiries. Suggested information formats include business directories, trade journals, business periodicals, recruitment literature, annual reports, brokerage reports, 10-K reports, on-line data bases, CD-Roms, Web sites, trade associations, placement centers, and personal networking contacts. Personal appearance and dress for the oral presentation is to reflect each research member's interpretation of the appropriate attire for an initial interview with the company. Additional individual components of the oral presentation are customized cover letters, targeted resumes, and personal/company compatibility summaries.

DEVELOPING AN INTERACTIVE MULTIMEDIA COMPUTER PROGRAM TO INCORPORATE PROCEDURAL MANUALS FOR FACULTY INTERNSHIP DIRECTORS AND INTERNS

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Research indicates that graduating students with internship experiences have the advantage in the job market and that many companies consider previous interns first. To provide our students with that competitive edge, five colleagues from three universities in
two states received a USDA Capacity Building Grant to develop an interactive multimedia computer program to guide students through the pre-internship class and on-site experience. The major contribution of these authors was to develop procedural manuals for faculty internship directors and interns.

After reviewing existing internship programs, the authors identified the critical needs of each program, pinpointed the common content areas, and outlined the table of contents for each manual. The next step consisted of creating a computerized system to integrate common content areas into each manual. Then each area of subject content was developed to assist the internship program director in planning the pre-internship course class lectures, computer assignments for the interns, and the on-site experience.

The manuals have been tested in two areas of concentration. Content areas have been refined and are being implemented into the interactive multimedia computer program. The last phase of this project will consist of integrating the manuals with the interactive multimedia components.

PUBLIC POLICY IN RETAILING:
TEACHING STUDENTS TO "TAKE A STAND"

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The emerging social, economic, and political issues of today become tomorrow's public policy decisions and thus legislative interaction and participation is a legitimate focus for retailers. Therefore, the objective of this creative teaching strategy is to provide merchandising students with an opportunity to become educated about public policy in order to learn more about issues, processes, and opportunities for public policy participation.

To begin the unit on public policy, students are given a self-assessment instrument to complete which determines their personal level of political participation over the past five years. Then students are provided with an appropriate lecture about public policy. Lecture includes information about public policy; public policy education; stages of public policy evolution; implications for individuals, industries, and society when individuals become political participants; and taking political action. After lecture, students are given a letter writing assignment to complete. For the assignment, students are to prepare and send a letter to an editor of a city newspaper or an elected official about a current issue or concern; writing letters is still a valid method of voicing support or opposition about an issue. Students are provided with a listing of addresses for local, state, and U.S. elected officials; copies of appropriately written letters; and instructions on how to build a written argument in a letter. Students are encouraged to write letters that urge support for a cause, ask a question, or voice an opinion. A copy of the letter is submitted to the instructor for course credit.

TEACHING RESEARCH SKILLS TO UNDERGRADUATES

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Student research motivates instructors and students to reach beyond the boundaries of the classroom and to add to the common body of knowledge. Unfortunately, instructors in programs without graduate programs often do not have this opportunity.

The retailing program at a major university in the south has 100 fashion merchandising majors and 150 retail administration majors. However, there is no corresponding graduate program; therefore undergraduates have little exposure to the research process.

Each semester a major retailer requests information about the retailing students' expectations regarding salary and benefits. Although previous surveys were administered only to Retailing majors, this study was expanded to include students in all major programs. This survey was adapted in the following manner as a student research project. (1) The student completed a computer search and prepared a review of literature. (2) A survey was developed based on findings from previous focus group and open-ended questionnaires. (3) Faculty teaching junior or senior-level courses for each of the major college programs were contacted. (4) The data were analyzed using the SPSS 7.5 statistical program.

The student has developed an understanding of the basics of applied research and has enjoyed the process. In addition, the student will present the research to the faculty of the college. An unexpected benefit for the student was the apparent admiration of her peers.
THE DEVELOPMENT AND INTEGRATION OF TEXTILE AND APPAREL CASE STUDIES IN THE TC CLASSROOM

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In the US, there are 22 million small business establishments employing over 50% of the private workforce. In terms of the textile and apparel sector, small business activities account for 95% of all textile and apparel businesses. In addition to their economic benefits, small businesses also offer an important educational benefit for textile and apparel students. We can learn from small business owners' mistakes, take advantage of their wisdom, and enhance the learning environment with their guidance and perspectives. Doing so in an effective manner requires a commitment to the development of case studies as an interactive, instructional mechanism.

Recognizing the lack of availability of textile and apparel case studies, a professor at a major Midwestern university undertook an extensive case study analysis of an existing small business in a rural community. The purpose of the investigation was to profile an established small business owner through direct observation, personal owner interviews, record analysis, and staff interviews. The result of the investigation was a comprehensive analysis of a small business owner's challenges.

The case study activities were integrated into a junior level merchandising class to aid students in comprehending complexities of small business management. This innovative project not only resulted in the development of a comprehensive case study for instructional use but also allowed students to interact with the small business owner. The success of the project, based on instructor assessment and student evaluations, has resulted in the development of additional cases for classroom discussion and analysis.

TOURIST PATRONAGE MOTIVES PERCEIVED BY SOUTHWEST U.S. RETAILERS

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Purpose was to determine patronage motives (PM) of souvenir consumers as perceived by Southwest U.S. retailers. The random sample of retailers selling souvenirs in Arizona, Colorado, New Mexico, and/or Utah was obtained from a national database. A pilot study preceded three survey mailings. From returned questionnaires, 307 were usable for analysis (49% response rate).

Sample was female (53%) and male (47%) retailers who were sole owners. Price range was moderate and sales volume was $100,000+. Retailers reported 1-25% of consumers purchasing items were tourists, and 1-25% of annual gross sales was due to tourists.

Factor analysis identified three PM (α = .84) factors; Merchandise Display, Merchandise Selection/Sales Support, and Store Location. Cluster analysis (PM factors) classified retailers into three groups, validated by MANOVA. Chi square indicated significant differences among groups on price range of merchandise.

Group 1 (46%) had the highest PM mean scores and was less likely to have low-end pricing.

Group 2 (14%) had the lowest PM scores and was more likely to have low-end pricing.

Group 3 (40%) had the second highest PM scores and no price range preference.

Discriminant analysis resulted in Function 1 (F1) accounting for 99.8% group variance. F1 separated G1 from G2 and G3 on Merchandise Display. G1 perceived in-store displays as very important in attracting tourists, G2 and G3 did not.

This study implies that retailers must learn more about distinctive patronage motives to serve a variety of tourist consumers seeking to purchase souvenirs.

A METHODOLOGY FOR CLASSIFYING APPAREL FOR DEVELOPING AN ANTHROPOMETRIC SIZING SYSTEM

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The sizing of apparel is important for both catalog shopping and store shopping. A size designation system that describes garment sizes according to body measurements would assist consumers in finding their garment size.
An anthropometric size designation system developed by the International Standard Organization (ISO) indicates a garment size with body measurements of key dimensions.

As part of a larger project of developing an anthropometric size-labeling system for women's ready-to-wear, this study was initiated to devise a more precise method for classifying garments. Two criteria were utilized for garment classification: (a) the portion of the body covered by the garment and (b) the fullness of the garment. A garment classification Instrument was devised to classify ready-to-wear garments. The instrument developed for the classification of garments is composed of seven flow charts. The first flow chart sorts garments into eight categories. The first flow chart also indicates the body units at which garments need to be classified. The remaining flow charts classify garments according to area of the body covered and garment ease amount at the related basic garment pattern units: bodice, sleeve, skirt, and pants. A comparison is made of the garment types used in the ISO garment designation system and the garment types resulting from the classification system developed in this study.

APPAREL QUALITY ANALYSIS: RTW IN THE MARKETPLACE

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Addressing apparel quality is an essential component of textile, apparel, design, and merchandising programs. Knowledge of apparel quality is a key job requirement. An applied project gives them a different level of understanding of and appreciation for the features and pricing of budget, moderate, and better apparel.

The purpose of this "Ready-to-Wear Analysis" assignment is to place students in the current marketplace to observe and evaluate a range of garments. The specific objectives of the assignment are (1) to get students to compare design, construction, and other details at varied price points and (2) to elevate students' understanding of pricing and quality characteristics for different markets.

In the project, students must (1) investigate both knit and woven categories of ready-to-wear and (2) evaluate these categories at budget, moderate, and better price points by exploring 10 renditions of one garment style in each. For all garments, students are asked to identify store and city of observation, price; to observe, record, and compare design and construction details, fiber and fabric content, and underlying fabrics and other materials; and to note manufacturer's name, country of origin, labeling features.

Data on the garments were presented in a written, narrative form, organized by category (knit and woven) and arrayed from most expensive to least expensive. Students are told to compare similarities and differences among garments within a category and across the price range and, then, to draw tentative conclusions based on their samples. They are cautioned to avoid the pitfalls of sweeping generalizations.

BEAT THE COMPUTER:
A GAME FOR LEARNING ABOUT APPAREL MARKER MAKING

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Apparel manufacturers seek to control costs, reduce inventory, and forecast product lines by selecting and using new technology (Zimmerman, 1997). To prepare students for this job demand, educators must provide experiences using technology.

"Beat the Computer" project provides the introductory-course students, who have limited or no previous pattern development systems (PDS) experience, with an experiential exposure to industry equipment and marker making. Projects in this lower level course must introduce concepts but not overlap activities in advanced courses. This course is also used for recruitment. Experiential learning and student involvement improves retention of students (Miller, 1990).

Class demonstrations, with a child's top including fabric and pattern, and a manufacturer's video were used previously for an explanation of marker making. Tests showed that students did not understand marker making. To enhance learning, "Beat the Computer" project was designed for a hands-on experience. The top's pattern pieces were scanned into the PDS and graded. Width of fabric was set according to industrial cutting. PDS developed the marker for the fabric utilization standard. Basics of laying a pattern and fabric utilization are explained in class. Students sign for individual computer time. To students, the assignment is a computer game, and they work diligently to beat the standard. Credit is given
for signup, punctuality, and completion of marker.

Improved grades, list of favorite projects, and progress in advanced classes demonstrate project's effectiveness.


**CASE STUDIES: INTERNATIONAL SOURCING FOR CONTRACTORS**

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The purpose of this research was to provide case studies in apparel contracting to be used in apparel production and merchandising classes. The cases were developed through on-site information gathered in Brazil and San Francisco. Case studies have been used as a teaching methodology to help students understand the realities of situations in the professional arena. Students must weigh what they can see for themselves against the paperwork submitted from a distant source. The merchandising programs which include in their curricula strategies for off-shore production could increase student knowledge from training with reality-based case studies.

Students were given lectures on apparel production principles: planning sequence, quality control, material handling, in-line inspections, costing, and production systems. These lectures included ethical considerations, initiatives about keeping work in the US, and financial strategies. Students visited factories in San Francisco to apply the concepts in the lectures. Teams of students were asked to write a case study based on the factory visit and factory questionnaire.

Eight case studies of Brazilian (Rio de Janeiro) contractors based on a 1996 site visit by the author were used as a comparison to the four San Francisco sites.

Out of a class of 14, eight students were successful in researching the sourcing situation and were able to come to definite conclusions as to what firm they would use for contracting. Six of the students found the exercise frustrating and were not able to make a confident decision.

**COMPARISON OF CALIFORNIA MANUFACTURERS/CONTRACTORS**

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Since 1977 there has been a steady decline of apparel employment and production in the US. In recent years, due to the enactment of NAFTA and the formation of large retail conglomerates who could dictate prices, contractors have been pressed to produce more for less, and manufacturers have continued to look for the best prices. The minimal pay increases contribute to economically tough and changing times.

The purpose of this study was to expand a previous study on San Francisco contractors/manufacturers (a) to determine the differences/similarities of the needs and practices of production management in two major California cities: San Francisco (SF) and Los Angeles (LA), (b) to analyze these differences so that the industry would have a better understanding of the specifics: production efficiencies, quality, sewing systems, and government regulations, and (c) to analyze how the perceived production needs fit into production styles made.

A survey was developed, pre-tested in SF, and then distributed to 25 contractors in SF, 25 manufacturers in SF, 23 contractors in LA, and 27 manufacturers in LA. The surveys were conducted as interviews in a 6-month period. The results were statistically analyzed by frequencies, means, percentages, and t-tests.

The two cities were not alike in their business practices; however both had problems with quality control and production efficiencies. Some had strong positive partnership links with manufacturers. Niche markets were commonplace in SF but not in LA. This conclusion leads to very different strategies relative to production needs.

**HOW DO YOU LIKE YOUR JEANS?**

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Junior/senior apparel merchandising and design students participated in a regional product development/evaluation/wear test with GIRBAUD JEANS, a division of VF Corporation. Students recruited and qualified poten-
tial premium jeans purchasers for consumer panels and focus groups, conducted product evaluation interviews, assisted with focus group interviews, administered fit evaluations, and conducted wear test interviews. GIRBAUD provided overall guidelines for the project, survey instruments, and all product to be evaluated and worn tested. Company representatives were present for on-campus interviews. Students were instructed by the representatives on personal interview techniques and strategies, and the representatives conducted the focus groups with assistance from students.

Approximately 25 men and 25 women were selected for the consumer panels, and product evaluations were conducted early in the Fall semester. Fit evaluations and wear tests were conducted later in the Fall. In Spring semester, students recruited and qualified 15 men and 15 women for focus group interviews. These sessions emphasized product development and long-term design planning. Students assisted in questionnaire development and observed focus group interviews.

Students benefited from this project by developing a better understanding of how consumer demand drives product development and company decision making. Students followed the process of targeting a market, collecting primary data, and applying these data to meet consumer needs. Giving students an opportunity to apply classroom skills increases their understanding and the likelihood that they will be able to apply the knowledge to problems they may encounter on the job after graduation.

INTRODUCING PRODUCT DEVELOPMENT: FOCUS ON THE SLEEVE

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Sleeves are a difficult garment component to transfer from sketch to pattern and then to a wearable third dimension. Students were assigned to research, design, and create a set-in sleeve variation. The class introduced research-based product design and developed creative problem-solving skills. Students designed for a target customer but, instead of working on an entire garment, focused on the sleeve. Evaluation was based on documentation of research, problem statement, ideation sketches, test sleeve, pattern, and oral presentation.

Research began in an historic costume collection where examples of sleeves from the late 19th century and the 1930's illustrated unusual use of shape and often emphasized the natural form of the arm. Challenges arose as sketches were translated into test garments and the process of developing pattern shapes and constructing test sleeves began.

By limiting the focus of the assignment to sleeve shape, students displayed many creative solutions and technical skills were strengthened.

Introducing a research-based product development methodology in a beginning level design class empowers the students. It sets in motion a professional approach to design. Plans to repeat this project include experimentation of the fabric's role in modifying shape. Other projects could be developed using this same framework by shifting the focus, altering the target customer, or redirecting the problem statement.

A STUDY ON THE IDENTITY DESCRIBED IN THE DRESS OF PEARL S. BUCK'S NOVELS

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This study analyzed the identity described in the dress of the famous American novelist Pearl S. Buck's (1892-1973) major works. Pearl S. Buck attempted to express her character's identities based on the knowledge of dress gained during her dual-cultural life in Asia and the western world.

For this study, the following seven works which are considered to feature the dresses for characters' identity well were selected out of her 85 works: The Good Earth (1931), Sons (1932), The Mother (1934), A House Divided (1935), The Hidden Flower (1952), Love and the Morning Calm (1953), and Letter from Peking (1957). For an analytical tool, the content analysis method was used.

To systematically review the identity described in the dress, individuals' identity was classified into the following categories based on the many identity theories.

First, the identity was grouped into (1) cultural identity, (2) social identity, and (3) psychological identity. Thereupon, the cultural identity was divided into sub-categories of (a) ethnic identity, (b) other-cultural identity and (c) dual-cultural identity, while the social identity was divided into (a) age identity, (b) sex, gender identity, (c) economic identity, (d) occupational identity, (e) political identity (f)
religious identity, (g) kinship identity, (h) regional identity, and (i) other identities. The psychological identity was divided into (a) personality identity, (b) value identity, and (c) real identity.

As a result of analyzing her works, all categories of identities were explained by character’s dress, clothing behaviors, and physical features. Clothing scholars have emphasized that social identity was mainly communicated by dress. This study found that cultural and psychological identity could also be conveyed by dress and clothing behavior.

ABORIGINAL DYE SOURCES ON THE LA VERENDRYE TRAIL

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The purpose of this research was to identify and document Manitoba plants as a source of natural dyes for textile fibers (specifically, wool) using information obtained from indigenous people.

Respondents were obtained by the snowball method. The initial contact that first mentioned using local plants for dyeing was asked if she knew anyone who might remember dyeing with plant material. In all, 10 individuals (7 female, 3 male) contributed information for this study. All of the respondents were elderly (between 70 and 92 years of age), and their memories were of events that took many years ago when they were children in the 1930’s or earlier. Most spoke very little English.

Information was obtained from respondents through an informal interview, letting the respondents remember at their own pace. Most remembered having to gather certain plants for their mother or grandmother but not the actual processes of dyeing. Most remember wool being dyed in the fleece, before being spun into yarn, and then the yarn knitted into mittens or socks. They all remember the variety of colors. These mitts and socks were not for home consumption but were sold or traded to the local storekeeper.

Some of the plant species (or closely related species) identified by respondents have been documented in botanical sources for other geographic regions as dye sources. However, several plants tested successfully are not listed in any of the resource texts as a dye source.

BODY IMAGE, BODY TYPE, AND CLOTHING SELECTION AMONG KOREAN TEENAGE FEMALES

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Personal behavior related to clothing is affected not only by contemporary socio-cultural situations but also by self-image. During adolescence, girls experience rapid changes in their bodies and become especially concerned with their figures and clothing. In Korean society, teenagers have a strong influence in various areas such as entertainment, advertisement, commercials, business, and fashion; currently most of the famous celebrities are teenagers.

The main objectives of this study are (1) to investigate female teenagers’ satisfaction with their body types and personal body image by location and (2) to analyze clothing selection behavior (design preference and shopping behavior) compared to body type, satisfaction level, and location.

Questionnaires were comprised of 24 items measuring self-image and body type, 52 items of satisfaction about body type, 40 items of design preference, and 8 items regarding shopping behavior. Six actual body type items were measured using a measuring tape. Respondents reported all of their clothing purchases for the previous three months. The data from 593 respondents were analyzed using frequency analyses, crosstabs, ANOVA and t-tests.

From this research, we determined that teenaged Korean females have similar negative images of their bodies. We also found that teenage females’ perception of their body images was affected by level of cultural contact. If more qualitative studies are performed in this area, we can connect personal body image perception with cultural imagery.

WHAT IMPACT DOES CLOTHING HAVE ON HUMAN BEHAVIOR?

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The purpose of this research is to conduct a comprehensive review and critical evaluation of published research that investigated
relationships between clothing and behavioral consequences of clothing worn by an individual. Indexing and abstracting services along with the ancestry approach were the methods adopted for the article search. This process resulted in 57 studies published in 55 articles between 1955-1994 with 63% published during the 1970s. The types of behavior under investigation were helping (49.1%), invasion of interaction territory (10.5%), political campaigning (8.8%), customer service (7%), political campaigning (8.8%), customer service (7%), aggression (5.3%), amount of disclosure (5.3%), obedience (3.5%), and other (10.5%). The clothing concepts under investigation included status/authority (33.3%), manner of dressing (33.3%), similarity (21.1%), political orientation (5.3%), visibility of dress (1.8%), amount of dress (1.8%), or no mention (1.8%). When clothing was manipulated in research, it was generally an entire appearance that was changed (e.g., outfit, hairstyle). Researchers used quasi-experimental designs (91.2%), used stimulus sampling (29.8%), and used clothing as the only manipulated variable (43.8%). The settings were social interactions (e.g., conversation/request) between the researcher and participant (74%). Participants reflect the general population and were approached when they were alone by a single researcher in a public setting.

ANALYSIS OF A HEMP FABRIC FOR APPAREL APPLICATIONS

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Hemp has been used for industrial products such as wraps for cotton bales, secondary backing for carpets, and upholstery support fabrics. Now it is found in such fashion products as skirts, jackets, slacks, purses, and bags. Since its performance in these end uses is unknown and consumer questions are being asked of us, we undertook this project to test hemp fabric available in the market in one fabrication—a balanced plain weave crash in four colors (deep maroon, black, dark tan, and light beige). We used standard AATCC and ASTM test methods to assess fabric performance related to dimensional stability, colorfastness, and appearance after washing; crocking; wrinkling; abrasion resistance; and breaking force.

Our sample fabrics had a skew of 15% and were made using relatively low twist yarns. Performance results were consistent for the four colors in most areas. The fabric was strong (breaking strength of 106.5 lbf warp and 69.2 lbf filling) but not highly resistant to flat and edge abrasion (loss of strength of 28% for flat abrasion and 90.6% for edge abrasion). After the third care cycle, shrinkage was 3.8% warp and 7.6% filling (slight increases over results for the first care cycle). The fabric received a 1.3 rating for appearance after the third care cycle and a 2.0 rating for wrinkle recovery. Colorfastness to laundering ranged from 3.0 for the beige fabric to 4.2 for the tan fabric. The maroon and black samples exhibited significant dry and wet crocking with results less than 2.0.

Although our results reflect a single hemp fabric, skew and yarn type influenced fabric performance and would probably decrease consumer satisfaction with products where fabric grain and abrasion resistance are important. Given its cost and performance, hemp's long term, mass market appear is unknown, especially if our fabric is representative of others on the market.

IMPORTANCE OF TEXTILES

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Teaching an introductory consumer textiles course that is a required core course for all Family and Consumer Science majors is extremely challenging. Some students do not understand why a consumer textiles course is required, how textiles are related to their Family and Consumer Sciences' careers, and the importance of textiles in their everyday lives.

The importance of the assignment was to make students aware of how often they are in contact with products made from textiles on a daily basis. The assignment was divided into two parts. For Part I, students were to list a minimum of 50 textile-related products with which they come in contact within a 24-hour period. For Part II, students were to name a consumer product that is not made from textiles that they come in contact with more often than products made from textiles. Very few students could answer Part II.

The assignment can be implemented in any textiles course. The amount of work can be expanded or reduced to fit the instructor's curriculum. As an introduction to textiles, it could be given the first day of class for discussion on the second day to illustrate how often a person comes in contact with textile products. The
MARKET ANALYSIS OF A TEXTILE END PRODUCT CATEGORY:
A BASIC TEXTILES PROJECT

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Objectives are to (1) become aware of the many aspects of textiles involved in one end product category and choices available in a given market; (2) compare an end product at three price points (high, medium, and low) in three types of retail sources; (3) describe the selling points (physical features) of the product and their corresponding buying benefits (performance features); (4) analyze data to determine value for end product by retail outlet, price point, and country of origin; and (5) develop skill in written and oral communication required in the job market.

Project: Students write a detailed description of one end product and the evaluative criteria for determining quality and value (APA format). The market survey includes three price points (high, medium, low) at three different types of retail sources. Data include prices, styles/types, colors/designs, finishes, fabrics, yarns, fibers, trademarks/brands, guarantees, care instructions, manufacturer, country of origin, and examples (swatches/pictures), as well as informational content from an interview with an individual who works closely with the product, three related articles, and other sources. Conclusions include an analysis of data, integration of information from description of product relative to evaluative criteria, market survey, and other sources.

Effectiveness/Success: Students respond favorably to the project saying they learned a great deal and enjoyed collecting the data and analyzing one end product in depth. The project must be completed by the 12th week of a 16-week semester so the instructor can spot and address misconceptions/interpretations in the written project before the end of the term.

RECYCLING POLYESTER

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With the demand for polyester products increasing to 23 million metric tons by 2005, there needs to be a plan for the responsible disposal and recycling of this material. Landfills are filled with non-biodegradable polyester products, which will continue to pile up until corporations and the public take action. Virgin polyester also depends on a non-renewable resource for its production. The extraction and conversion of petroleum uses up a significant amount of energy. The extraction of this resource has also been linked to many devastating environmental disasters. With many experts predicting that there will be a shortage or depletion of petroleum deposits mid-way through the next century, the issue of reducing dependency on virgin polyester becomes an increasing concern.

This report has been compiled to examine polyester recycling and the benefits reaped through increased awareness and participation in this activity. Some information on the production and recycling of polyester will be provided. This report will identify the advantages and disadvantages of planned polyester recycling. Suggestions to increase the awareness and participation in polyester recycling will also be addressed. The roles of the government, the general public, and the corporate sector in this effort are clearly stated. The effects of such a proposal on society will be taken into account.

ACADEMIC ADVISING REVISITED

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As educational institutions are using the latest technology to facilitate operations, students may experience a less personalized academic experience. Enrollment declines make it imperative we examine ways to retain students; academic advising may positively impact retention. The objective of this project was to establish a group advising system for preregistration, recognizing this may be the only structured experience students have to participate in an ongoing relationship with university faculty. This advising system brings students and faculty advisors together for advising two late
afternoon and evening sessions during preregistration. The advisors have adequate space to counsel students individually. These group sessions have been mutually beneficial for students and faculty in several ways, including facilitating informal peer counseling, promoting interaction among faculty and students of various options, creating a sense of belonging to the major and school, concentrating faculty time dedicated to preregistration into two blocks, and giving opportunity for networking. Results on a survey of graduates who participated in group advising show 95-100% agree or strongly agree with these statements and others: role of my academic advisor has been important, my advisor takes interest in each advisee, and my advisor helps me know I am responsible for my own actions. Further input from recent graduates and current students show they appreciate an advisor who is friendly, sincere, available, a motivator, and efficient. This group system for preregistration does not replace availability of faculty during regular office hours; it has been rated as very effective by students/advisors. The system will remain as one effort to increase student retention.

A STUDY OF THE COMFORT AND PREFERRED STYLE OF BICYCLE APPAREL IN KOREA AND THE UNITED STATES

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Bicycles have been used for many purposes including transportation, leisure, fitness activities, and competition.

The ultimate objective of this study is to develop improved bicycle apparel for competition cyclists. As a first stage of this study I investigated comfort, preferred style, and clothing problems of cyclists in Korea and the US.

Data were collected from competition cyclists between August and October of 1997 in Korea and the U.S. using a questionnaire format. The total 145 questionnaires (66 American and 79 Korean) were used for data analysis. Data from the survey were analyzed using frequencies and percentiles. The differences between the responses of males and females in Korea and the U.S were compared using a χ² and Fisher's exact test.

68.3% of U.S. male cyclists perceived that bicycling apparel has an effect on performance. Most of the U.S. male cyclists are satisfied but both male and female Korean cyclists are dissatisfied with bicycle apparel available to them. Both Korean and American cyclists considered that comfort and performance of bicycle apparel are very important. In regard to fabric properties, both Korean and U.S. female cyclists felt that good sweat absorption, durability, and thermal properties are very important. Males and females of each country preferred different collar and neckline styles. All respondents preferred fitted jerseys.

The data from this study provide the designer with information for creating well-designed bicycle apparel.

APPLYING COMPUTER AIDED DESIGN TO CREATE A LINE OF PRINTED TEXTILES

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In the Textile Design I class, Fall semester 1997, a new project was introduced to further increase the students' skills in computer aided design as they responded to a professional project. They were to create croquis and colorways on the computer, following specifications provided by a firm headquartered in New York City.

The designer for J.M.D. Imports, which produces women's moderate-priced skirts, tops, and dresses, challenged the students to create printed textile designs for her spring/summer 1998 line. Project specifications required students to (1) research design trends for this market, including colors and motifs; (2) review garment flats and illustrations of garments planned for spring/summer 1998; (3) prepare a paper discussing field and trend research; (4) create several croquis and colorways on the computer, applying research; (5) print the croquis and colorways in color; and (6) present the designs.

To save time it was determined that the students should create uniform layouts directly on the computer. This would eliminate cutting out the painted croquis, colorways, and swatches and mounting them on mat boards. To achieve consistency, the students were
required to develop a grid format on the computer that all would follow.

Towards the end of the semester, the designer met with the students to determine which designs would be most appropriate to her market. These were sent to New Delhi for sample production. This project can be adapted to any geographic location, as it can be done entirely by mail. While it is advantageous to have the designer meet with students to critique their work, it is not a necessity.

ASSESSMENT OF TEXTILES AND CLOTHING CURRICULA: A FORMATIVE APPROACH

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Nationally educators have been challenged to evaluate, through assessment of outcomes goals, the success of their programs. A formative approach to assessment can be used to create a workable model that can be adapted to all disciplines and encourages honest evaluation of existing curriculum while also providing direction for the growth and development of the curriculum.

Successfully negotiating the assessment process requires a plan. Components of a well-defined assessment plan include (1) mission statement, (2) goals, (3) measurable objectives, (4) measurement plan, (5) data collection, (6) data analysis, and (7) recommendations. These components can be visualized as linear process with feedback loops connecting to the mission statement.

The formative perspective of assessment allows for revision of any component of the plan and encourages critical examination of the entire program. Questions that can arise include (1) How do entry-level courses contribute to the overall program goals and objectives? (2) Is the sequencing of courses appropriate? (3) How can course content be made more relevant to the overall program goals and objectives?

Suggestions for making the process more manageable: (1) Begin the process by examining the goals and objectives suggested by the discipline's professional organization. (2) Think globally. (3) Portfolios and term projects are ideal for assessment purposes. (4) Encourage student involvement in the development of the instrument. (5) Components of the instrument should be keyed to the specific goals and objectives they are to measure.
dents become comfortable with using small-scale patterns in the same way a "thumbnail" sketch might be used—as a way to quickly work out ideas.

Students in two different beginning and intermediate flat patternmaking courses are assigned "designer notebooks." These notebooks involve collecting interesting designs from magazines, catalogues, and historical references. For each design, the beginning patternmaking students manipulate photocopies of 1/4 scale slopers and create the general pattern shapes for each garment. The pattern and the picture of the garment are then put into a book. Intermediate level patternmaking students sketch 1/4 scale patterns pieces included in the garment and label each piece appropriately. In addition, the intermediate student is to write an industry standard direction card with a technical sketch of the garment.

This is an effective exercise for fashion design students at all levels. As students become more skilled in apparel design and patternmaking, they may find that they can use this technique of design development to work through difficult or intricate original apparel design ideas. They may also find inspiration for new and innovative design ideas while working with the small-scale slopers.

CONSUMERS' ETHICAL BELIEFS TOWARD PURCHASING BEHAVIOR FOR CLOTHING: INFLUENCE OF CULTURE AND PERSONALITY

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Unethical consumer behaviors have negative effects on businesses and consumers. Yet, little research has addressed what influences consumers to behave unethically. The purpose of this study was to gain theoretical insight into what types of factors influence ethical and unethical consumer behavior. This paper studied the influence of clothing consumers' cultural background and one personality characteristic, Machiavellianism, on consumers' ethical beliefs toward purchasing clothing.

From a survey of 127 Chinese and American students, two factors were found for unethical consumer behaviors toward purchasing clothing: beliefs about (a) illegal activities and (b) legal but questionable activities. Simple and Multiple Linear Regression were used to investigate the function of culture, Machiavellian, and their cross-function on the two factors.

The following findings were obtained: (1) those more closely identifying with American culture tend to be more accepting of unethical consumer behaviors for clothing than those identifying with Chinese culture; (2) those who are more Machiavellian accept more unethical behaviors than those who are less Machiavellian; (3) Machiavellianism explains more variance in consumers' ethical beliefs toward purchasing clothing than culture, and (4) the interaction between culture and Machiavellianism does not significantly influence consumer ethical beliefs. The findings of this study contribute to the development of a consumer ethical model.

DIFFUSION OF INNOVATION IN SIMULATION

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The idea of self-organizing systems is a new paradigm for inquiry based on a basic insight: a system of adaptive agents following simple rules can exhibit complex behaviors. Researchers design a simulation as a laboratory where the behavior of adaptive agents can be observed across time, rule sets can be recalibrated to investigate different scenarios, and emerging patterns of behavior can be identified and interpreted.

Rogers' (1962) diffusion of innovation model is the theoretical framework of the simulation InfoSUMERS which models the interaction between change agent influence (advertising, promotion, product placement in media) and personal influence, between innovative early adopters and fashion followers. At the beginning of a simulation, the researcher sets the parameters for the rate of diffusion and evaporation of influence, the number of each kind of agents, and the number and kind of fashion looks available for adoption, consumer preference profiles, and other segmentation variables. At each time step in the simulation, each agent evaluates the situation and determines the action at each time step according to its individual rule set. The rule sets include probability functions so that each decision is unique and adaptive. InfoSUMERS performs experiments investigating patterns of diffusion among consumer segments under different scenarios (slow versus rapid fashion change,
orderly versus chaotic introduction of innovations, few versus many fashion leaders).


MALE CONSUMERS' NECKTIE PREFERENCES: A COUNTRY-OF-ORIGIN, ETHNOCENTRISM, AND SELF-IMAGE CONGRUENCE PERSPECTIVE

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The purpose of this research was to empirically examine whether a relationship existed between American male consumer's ethnocentrism and self-concept and necktie preferences for business encounters. Data were obtained via a self-administered mail questionnaire from a random sample consisting of 124 males employed in professional positions in law, ministry, and real estate in a city located in the southwestern United States, yielding a response rate of 38.4%. Three style dimensions (conservative, contemporary, casual) were utilized in assessing actual (α = .63, .65, .61) and ideal (α = .54, .68, .62) self-concept, personal image (α = .41, .58, .54), and clothing image (α = .81, .64, .71). Results revealed a significant positive relationship between age and ethnocentrism (α = .84). No significant correlation was found between personal image and sociodemographics. As to product attributes deemed important in the purchase of neckties for business wear, versatility and price were negatively related to ethnocentrism but positively related to casual personal image. Latest fashion and surface design were found to be negatively related to conservative personal image. No relationship was evidenced between product attributes and contemporary personal image. Conservative ideal congruity was a significant predictor of purchase intention. No influence was found to exist between personal image congruity and the number of neckties purchased.

EXTRINSIC CUES AND CONSUMER EXPECTATION

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The objectives of the study were to investigate (a) whether three types of extrinsic cues—store types, brand names, and types of performance statements—influence consumers' expectations for apparel after-wash performance and (b) whether differences exist between students in the Clothing/Textiles (CT) and non-CT majors in the influences of these three types of extrinsic cues on the formation of expectation. The subjects of the study were selected from junior and senior students in the CT major (N=58) and non-CT majors (N=52) of two universities in an urban and a rural area. The survey questionnaire included 10 nominal scale questions asking which specific information leads to the best expectations for the after-wash performance of sweatshirts.

Most participants expected the best performance from the products sold in department and specialty stores (80%). Among 13 brands, more than half of the participants expected the best performance from a well-known sportswear specialized brand (56%). Almost all participants' expectations were influenced by product performance information (95%). When the responses from the CT and non-CT students were compared, the results of chi-square tests indicated that differences existed between the two groups in the influences of store types, brand names, and types of performance statements on expectations ($\chi^2 = 6.87, p < .05; \chi^2 = 3.55, p = .06; \chi^2 = 7.30, p < .01$, respectively). More CT students expected the best performance from specialty stores, but more non-CT students expected the best performance from department stores. More CT than non-CT students used brand names to form their expectations. More CT students trusted technical statements such as "The fabric of this sweatshirt has been shrinkage controlled to retain its shape," but more non-CT students trusted guarantee statements such as "Guarantee this sweatshirt will not shrink wash after wash."

These three extrinsic cues—store types, brand names, and types of performance statements—play important roles in the formation of expectations, but their influences on the CT and non-CT students are different. Product knowledge also plays an important role in forming consumers' expectations for future product performance.
In this study personal values were hypothesized to be positively and directly related to three aspects of retail career attitudes and to be indirectly related to retail career choice (H1). Retail career attitudes were then hypothesized to be positively correlated to the likelihood of choosing retailing as a career (H2).

A total of 754 college juniors and seniors nationwide returned a mailed survey. A single stage analysis with simultaneous estimation of both structural and measurement models via LISREL 8 was used to test the hypotheses. The measurement model was highly reliable and reasonably valid. The initial structural model revealed a $\chi^2$ of 932.43 ($df=247, p<.001, GFI=.89$). The second analysis revealed improvement in the model fit ($\chi^2=830, df=236, p<.001, GFI = .90$).

Self-actualizing values were positively correlated with both intrinsic ($\gamma_{11}=22, p<.01$) and extrinsic ($\gamma_{21}=32, p<.001$) factors. Social affiliation values were related to all three aspects of retail career attitudes: intrinsic ($\gamma_{23}=.25, p<.001$); extrinsic ($\gamma_{22}=.17, p<.05$), and lifestyle ($\gamma_{32}=.40, p<.001$). Overall, H1 was accepted. Direct and positive effects were found between all three aspects of retail career attitudes and retail career choice, confirming H2.

The findings indicate that the intrinsic enjoyment component of retail career attitude had the greatest effect on retail career choice, followed by the extrinsic compensation and lifestyle flexibility components of retail career attitude. Self-actualizing values had the greatest influence on the intrinsic aspect of retail career attitude whereas social affiliation values had the greatest influence on lifestyle-related retail career attitude. The examination of the total indirect effects indicates that the extent to which the "self-actualizing values" and "social affiliation values" influence retail career choice indirectly through retail career attitudes was similar. However, their roles were somewhat different in terms of their path of influence.
Savannah was a growing seaport city of Georgia after the Civil War. It offered some opportunities to women in various occupational fields, apparel being one. The time period 1870-1896 was a time of more and more women entering the workforce in various occupations: domestic service, home-laundry service, secretarial positions, teaching, and dressmaking. Although several published studies have examined women's occupations, none has examined the field of apparel within the confines of one growing Georgia city at the end of the Civil War. We have attempted to fill this gap through this project.

The purpose of our study was three-fold: (1) to investigate the types of apparel occupations held by women in Savannah, Georgia from 1870 to 1896, (2) to determine how these occupations compared to the other occupations held by women in Savannah at this time, and (3) what percentage of the apparel occupations were held by African American women. The time period 1870-1896 was chosen since it was a time of growth and prosperity in both Georgia and Savannah, as well as a time of changing roles and occupational status for women.

Research for this project was based on the examination of the Savannah City Directory. The city directory provided names, addresses, and occupations of city residents. In addition, the city directory provided the racial distinctions of Savannah's population. Findings indicate that "seamstress" and "dressmaker" were two leading occupations in the apparel field and that the women in these occupations were few in number in comparison to the other types of occupations held by women in Savannah during the time of the study.
thinking is muddled, or (3) the article itself contains erroneous information. It is now the end of term and from the student's point of view the requirements of this assignment have been completed. There is little learning pay-off.

There is a better way. This year, the Current Events Assignment for Textile and Apparel Policy was conducted exclusively by E-mail. Students are required to send a brief description of the news event and where they saw/heard it and what impact they think it will have on the Textile and Apparel Industries. I respond immediately, asking for clarification if necessary or asking them a question which gets them to think about another aspect of the problem. Each student has a floppy disk on which I save each message they send and my response in return. Often, several messages travel back and forth on a given topic, which I interpret to mean that there is more student "involvement" with current events. Several students have linked "current events," referring to an earlier article while reporting on something related. Sometimes they even link a current event with a particular lecture or class discussion.

TRANSNATIONAL CORPORATION EXHIBITS

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Students taking an international trade class were asked to develop a poster presentation. The objectives of the project were to (1) profile one transnational corporation, (2) analyze the competitive position or advantage of this firm, (3) effectively display the information, and (4) develop human relationship and time management skills.

Research. Students chose a partner and a transnational corporation. A research session was provided. Students were asked to read trade and business publications, check business indexes, and use the Internet to gather information on the chosen multinational corporation. From their research, students were to prepare a poster exhibit and write an accompanying one-page abstract.

Display. The poster was to focus on the qualifications it took to be classified as a transnational corporation and the target market served. Additional information and examples were encouraged for presentation purposes. Students were given freedom to accomplish this portion of the assignment as creatively as possible, utilizing aesthetic knowledge from previous classes.

Participation. During display day, students evaluated each other's projects on set criteria. Each student was required to observe and evaluate the individual exhibits and ask one or more questions of the exhibitor.

The project was well received by the students. Students were allowed to creatively express their research information in the exhibit. In evaluating other projects, they were able to appreciate differences in approaches and gathered ideas for future projects. The peer evaluation step also allowed the student exhibitors to take ownership of their research and express and impart additional knowledge.

COMPUTER SKILLS NEEDED FOR RETAIL MERCHANDISING AND INTERIOR DESIGN GRADUATES

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Employers have high expectations of computer literacy for today's graduates, and universities must ensure that graduates possess these requisite technological skills.

The research purposes are (1) to ensure the School is preparing graduates with requisite computer literacy for successful industry placement and (2) to provide the School with a longitudinal instrument for assessing technological curricular outcomes across diverse disciplines.

The survey instrument was designed to collect quantitative and qualitative information about computer proficiencies demanded by diverse marketplace employers across School disciplines. Surveys were administered to students completing quarter-long internships and to their professional supervisors, as well as to School advisory board members. Information collected included the types of computers used in the professional environments and the frequency of eight technical business operational tasks performed.

Results reinforce the importance of technology and the need for continuous improvement in curriculum development supporting the identified tasks. Retail Merchandising and Interior Design employers' demands for computer proficiencies are becoming increasingly sophisticated and costly in scope for universities to offer and manage. Efficiency opportunities exist within the School via
shared software programs and combined, team taught courses across disciplines.

CREATION OF A RETAIL CONCEPT: AN INDEPENDENT INVESTIGATION INTO BUSINESS ENTREPRENEURSHIP

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Businesswomen contribute more than $2.38 trillion every year in revenue to the US economy. Employment growth in women-owned businesses exceeds the national average in almost every region of the country. They are also likely to remain in business longer than the average male-owned firm.

Female business ownership has been the focus of increased attention. Government statistics confirm that women are starting businesses at unprecedented rates in many areas, but retail business is especially relevant.

In view of continued growth and interest in entrepreneurship, female textile and apparel students often view business ownership as a viable career opportunity.

Recognizing the limited availability of courses addressing small business and/or entrepreneurship, an undergraduate student proposed an honors project designed to explore dimensions of business development and operation. Specific objectives were to study retail business planning and philosophies with an emphasis on components of product and service considerations, location analysis, target marketing, merchandising, and finances.

A literature review included materials on small business planning, small business management, store planning and design, retail management, and entrepreneurship. The Small Business Development Center and the Small Business Administration were consulted about relevant materials for review. Interviews with business owners and critiques of existing small retail establishments offered insights, ideas, and inspiration. The independent project resulted in the development of a working business plan.

EXPANDED LEARNING DURING INTERNSHIPS

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Interns are often expected to balance personal and professional activities and perform satisfactorily in a professional environment without the insights and perspectives needed. As a means of helping students to change paradigms, develop new insights, and practice professional behaviors, Stephen Covey’s book, Seven Habits of Highly Effective People, was introduced into the internship program. Specific chapters are assigned each week, followed by discussion questions on weekly worksheets. Students are asked to analyze environments, situations, and behaviors based on concepts presented in the book. Questions are designed to challenge thinking, stimulate analysis, and improve communication and leadership skills.

The book provides an excellent basis for discussions with the interns, employers, and for followup at the conclusion of the internship. After reading the book students are able to view situations and behaviors from a much broader perspective instead of making assumptions based on their own limited experiences. It provides a framework for open discussion of specific issues that might otherwise have been avoided. Behaviors fit into the context of “effective habits” and do not take on a personal implication. In the two years I have used the assignments, I have observed changes in perspectives, more insightful thinking, and stronger leadership practices by the students.


EXPERIENTIAL FIELD STUDY: TOMMY HILFIGER GOLF LINE

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The purpose of this course is to give graduate students realistic experience while receiving graduate credit. Students are required to focus on and specialize in one specific area. In the case of the Tommy Hilfiger Golf line, the problem was lack of knowledge, awareness, and understanding on the part of the golf professionals who worked in the pro shop of how to merchandise the line. After consulting with the company representative, it was proposed that the student visit each shop once a month to assist the golf pro shop personnel merchandise the line. The student reported to the Tommy Hilfiger corporate office weekly to inform them of progress being made. In addition, the corporate office evaluated the
student's work by checking volume of sales in each shop.

This experience was a "win-win" situation because everyone involved benefited. The Tommy Hilfiger Golf line began to sell more successfully in the golf shops where the student provided assistance to the personnel. The student had a very successful experience and learned a great deal from interactions with the company and the golf shop personnel. The golf shop personnel benefited from the assistance provided by the student. This type of field experience enhances the standing of the university in the eyes of the community, provides the student with an extremely beneficial experience, and also assists the business community by providing assistance in problem resolution. In addition, by working closely with a company representative, the student is given an in-depth picture of a specific company. In some cases, the company made a job offer to the student upon graduation.

FOCUSING ON DEVELOPMENTAL RELATIONSHIPS IN SMALL BUSINESS APPAREL RETAILING

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The purpose of this research investigation was to gain an understanding of the use, function, and support dimensions of developmental relationships for small business apparel retailers by applying focus group data collection techniques and interpretive analysis.

Study objectives specifically were to (1) explore the use of mentors, social networks, and role models in small business apparel retailing and (2) identify functional and support dimensions of developmental relationships in the small business retail environment.

Sample Selection. Populations of interest in this focus group study were business apparel retail owners/managers in towns with populations of 10,000 or more. Two towns in each of three size categories were randomly selected.

Data Collection and Analysis. For data collection purposes, a total of eight focus groups took place in the selected communities. Group size ranged from 4 to 15 members; focus groups ranged from 0.5 to 1.5 hours in duration. Data collected were recorded, transcribed, and analyzed via content analysis to generate dominant themes emerging from the group sessions evidenced in the transcription content.

Results indicate that, indeed, networks, role models, and mentors are viewed as necessary and important mechanisms for information, support, and guidance. However, focus group participants noted a lack of access to such development relationships. Gender differences in the use and perceived value of developmental relationships was also noted. Study results are leading to a follow-up investigation of development relationships in small business retailing using quantitative data collection techniques.

LIGHT BOX ACTIVITY FOR VISUAL MERCHANDISING

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In presentation of merchandise, lighting is one of the most critical variables in the way the product is perceived. The intent of this activity was to address the way the item (and person wearing it) appears. The interaction of light with garment and personal appearance will impact purchase decisions. The objectives for the students were (1) to understand the relationship between color accuracy and the CRI rating and Kelvin temperature; (2) to observe the change in various skin tones when viewed under various lamps; (3) to learn which light sources enhance shiny, textured, and napped surfaces; and (4) to recognize the challenge of flattering the merchandise and the customer with one lamp type.

The lamps were chosen to have a similar "wattage." The lamps chosen were fluorescent (cool and warm), incandescent, (A lamp and halogen), and HID (mercury). The lamps represented several CRI ratings and the Kelvin temperatures.

Method—The students were given a worksheet to record their observations and questions to answer analyzing information from observations and reaching a conclusion.

The items (fabric, skin) were viewed under each lamp, one color, item, or skin tone at a time. Natural daylight from an external window was used to observe the color under natural lighting. Fabric swatches represented a spectrum of colors and textures. Hands representing different skin tones were used.

Evaluation—Students did better than earlier groups when tested on lighting
(understanding of light terminology, types of lamps, and unique characteristics of each). Students commented that it made them aware of the impact light sources had on the color, texture, and skin tone they saw. They especially liked first-hand observation instead of strictly lecture. It made it more interesting and easier to understand and remember. In the future, some changes will include showing several swatches per compartment simultaneously to reduce time, aid comparison, and allow time to rest their eyes and getting the class more actively involved.

MERGING MULTIMEDIA INSTRUCTIONAL TECHNOLOGIES INTO THE CURRICULUM

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Chalkboards, overhead projectors, and slides are traditional tools used in the classroom. Today computers and hardware peripherals such as videotape players, television monitors and liquid crystal display projectors present educators with a range of creative possibilities that go beyond what has been offered by more traditional media. Multimedia materials used in the classroom may provide a stimulating environment for teaching and learning. Multimedia instruction allows the instructor to become a mentor who guides the learner rather than simply the purveyor of knowledge.

Over the past two years multimedia materials have been developed for use in two classes. An analysis of the grades earned indicates that there has been a slight non-significant increase in the grades. Written comments on the instructional surveys indicate that students enjoy the multimedia materials and are especially pleased with the course notes.

From an instructional point of view, using multimedia materials has helped to organize course materials and has increased student involvement in the learning process. Students are encouraged to read and react to descriptions, exercise critical thought, create arguments, work together and use modern technology. These materials have provided students with opportunities to become familiar with different technologies, to take an active role in the learning process, and to "travel" beyond the classroom. Students show more interest, understand the material better, and retain basic concepts.

USING THE INTERNET TO PREPARE TREND REPORTS AND PREDICTIONS

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An interesting aspect of Fashion Merchandising often overlooked is the preparation of a trend analysis and prediction. One of the reasons may be the lack of resources commonly available other than Fairchild publications and consumer fashion magazines. Fortunately, the Internet has revolutionized the preparation of collegiate trend reports. The depth and breadth of information available through the web sites of trade organizations, manufacturers, and retailers allows students to tailor their reports to their interests. The trend report may be as narrow as women's evening shoes or as broad as apparel for men, women, and children.

Students prepared a trend analysis and made a fashion prediction. Ten references were required in the 10-page paper. Suggested reference sources were the Internet, WWD, DNR, SportStyle, Children's Business, fashion magazines, and television fashion programs. Each student completed an observational survey of 100 people, researched past fashion trends, and made an informed prediction based upon the trend analysis and history of fashion. In addition, students prepared a presentation board illustrating trends and predictions.

Each student was required to turn in a list of ten web sites three weeks after the beginning of the semester. The students have found the Internet resources to be up-to-date and easy to access. In addition, they may clip examples of the trends to include on their trend boards.

There were two major benefits of this activity. (1) Students developed competency in searching the Internet and clipping artwork. (2) Students prepared up-to-date trend reports.

BUILDING UNIQUE LEARNING OPPORTUNITIES FROM CONSULTING VENTURES

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As university/industry linkages increase and outsourcing becomes more prominent, firms turn to University apparel and textile programs for assistance with design and product development challenges. Effective man-
agement of these opportunities can allow faculty to build positive working relationships with industry and enhance student learning through class projects. Industry personnel typically initiate the project with a request for service or advice, the teaching enhancement and learning opportunity. Each opportunity must be evaluated for (1) the ability of faculty to address problem, (2) appropriateness of the problem to content of a course, (3) acceptability of time constraints and (4) long term risk for faculty, department, and school. If these factors are evaluated with positive results, the relatively slow response time provided by an academic class must be understood and be agreeable to industry. Finally, if it seems unlikely that a positive result can be achieved, the opportunity should be declined.

The author has, using this approach, successfully directed a computer aided design class to complete a pattern digitizing, grading, and plotting project for a national retailer's private label development. She has also worked with students on fit evaluation, pattern adjustment, and grade rule development for a contractor creating his own line of sports apparel. These projects facilitated learning and critical thinking among involved students. As a formula for success becomes established and more guidelines are developed, it may be possible to begin "for fee" classroom exercises which would support laboratory upgrades and supply purchases.

CAD USE AMONG TEXTILE AND APPAREL DESIGNERS

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The purpose of this research was to investigate the use of computer-aided design among textile and apparel designers in the U.S. A self-administered questionnaire was sent to the subscribers (n=540) of Fabricad Update, a newsletter published six times per year by Fabricad Consulting. One hundred twenty questionnaires were returned and yielded a final sample of 102 (18.89%).

Participants ranged in age from 22 to 55 with a mean age of 33. Salaries ranged from $15,000 to $120,000 with a mean of $42,423. A bachelor's degree was held by 81% of the respondents. Forty-two percent of the participants worked in the East, followed by the South (31%), Midwest (13%), and West (12%).

Thirty-five percent of the participants had 1-5 years of general computer experience and 1 to 6 years of CAD experience. Over half (58%) were trained by a CAD manufacturing company, while only 20% were trained at a college or university. Sixty-six percent indicated that CAD was a part of their job responsibilities after hire. Over half of the participants (56%) worked on CAD from 51% to 100% of each workday. In addition, 51% used CAD to complete 1-5 components of the design process. The 2 most used CAD programs were CDI and Sophis. Additionally, 54% of participants used off-the-shelf software, with Photoshop and Illustrator being the most used programs.

The large portion of the participants identified their job title as designer (30.4%) or CAD manager (19.6%). Forty-three percent of the participants had worked in the industry 1-5 years, and 80% had worked in the current job position 1-4 years. Employing companies had used CAD for design across a span of 20 years, with the majority of firms (57%) utilizing CAD 1-5 years. Increasingly, large textile and apparel firms are integrating CAD into the design process.

DEVELOPMENT OF BODICE PATTERN MODIFICATION SYSTEM BASED ON THE STRETCH RATE OF KNIT

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Textile manufacturers have come up with a variety of stretch fabrics. Because most knits have different wale and course stretch capacity, merely reducing a pattern by body ease without considering the stretch factor of each individual fabric may cause distortion of the products in key areas (Ziegert & Keil, 1988).

To develop a pattern-drafting method for knit and stretch fabrics, the basic bodice pattern was drafted, and its suitability was then evaluated. The fabrics employed in this study were nine different knits of jersey, interlock, and rib. For each knit, six sleeveless shirts of different pattern alteration rates were made: 0%, 30%, 40%, 50%, 60%, and 70% of the stretch rate.

The results of this study were as follows: The knits with high stretch rate at course needed a low modification rate to have appro-
priate garment fit. There was a high correlation \( r \approx 0.9 \) between the evaluation of the panel of the garment fit and the landmark distance.

This study can help both apparel industrialists and scholars to develop a pattern-drafting method for knit and other stretch fabrics. The modification method employed in this study can be used in industry for computerized pattern grading.


SIZE SPECIFICATIONS OF THE KOREAN ADULT MALE FOR READY-MADE PANTS

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The purpose of this study was to classify size specifications of Korean adult males for men's ready-made pants. Applying a stratified sampling method, data were collected using the anthropometric measurement. 1290 subjects were sampled and their age ranges were from 19 to 54 years. Sixty-six variables in total of the direct anthropometric data were analyzed.

Control dimensions and reference dimensions for pants have been designated by the Korean Apparel Sizing System (KS-K). Control dimensions for pants are waist girth and hip girth. Reference dimensions are inseam length, thigh girth, and total crotch length. Therefore, this study was performed to classify size specifications by control dimensions and at various intervals. Size specifications, frequency distribution of control dimensions, and reference dimensions were predicted. ANOVA in the SPSS WIN package was applied to the data, and the expected frequency distribution of 10,000 men was calculated by the extraction of density function.

When the interval 2cm of waist girth was combined with the interval 2cm of hip girth, 86 size specifications were classified and its coverage was 95.8%. When the interval 2cm of waist girth was combined with the interval 3cm of hip girth, 63 size specifications were extracted and the coverage was 96.82%. When waist girth has 3cm intervals and hip girth 2cm, 64 size specifications were classified and its coverage was 96.7%. When waist girth has 3cm and hip girth 3cm, 50 size specifications were extracted and its coverage was 97.8%. 15 size specifications of the expected frequency distribution of 10,000 men showed up in higher than 2% of the totals and its coverage was about 37.1%. 22 size specifications showed up in higher than 1% of the totals and its coverage was 30.97%.

THE WEB: A SUPPLEMENT FOR TEACHING APPAREL ANALYSIS

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When I began teaching Apparel Analysis to undergraduates in early 1997, I used a few World Wide Web sites to supplement the textbook. Students were not familiar with the Internet; overcoming their apprehension was a challenge. In less than two years, anxiety is non-existent; current students are veterans of e-mail and the Web.

My students have used the web to compare retail and catalog companies, locate professional organizations, follow links to career descriptions and openings, and "tour" the J.C. Penney Quality Assurance Department. Selected sites have clarified concepts such as "vertically integrated manufacturers" and "quick response." Students have located aids for the pronunciation of foreign fashion designers as well as the complete apparel labeling regulations of the Federal Trade Commission. Students who lacked construction knowledge found explanations and diagrams of critical techniques at the University of Nebraska's site. Examples of small-business sites led some to consider the advantages of on-line marketing ventures.

My presentation highlights an assignment in which students tested the claim that women's sizing in the United States lacked standardization. After locating measurement charts from retail, catalog, or pattern company sites, students confirmed that bust, waist, and hip measurements varied as predicted. The unknown degree of "fitting ease" was also problematic. Students concluded that ordering without an opportunity to try garments on would be risky unless purchasing a familiar brand. Supplementing textbooks with WWW sites offers interesting possibilities.
ASIAN ETHNIC DRESSES IN WORLD FASHION: CASES OF VIETNAM AND JAPAN

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Nayoung Hong, Ehwa Womans Univ., Korea
Juhyeon Lee, Yonsei University, Korea
Chanju Kim, University of Inchon, Korea

The main objectives of this study were to explore how Asian ethnic dresses coexist with "world fashion" and possibly make projections for the future of ethnic dresses with the focus on Vietnam and Japan. Several methods were used in the project. First, five fashion magazines were reviewed to examine the ways that the fashion world has incorporated ethnic dresses. A total of 70 pictures of the designs with either Japanese or Vietnamese influences were identified, and they were analyzed in terms of 11 characteristics such as shape, item, silhouette, color, and material.

The field studies in Japan and Vietnam included interviewing experts (professors, museum curators, fashion designers, and ethnic dress manufacturers), administering the open-ended questionnaires to non-experts, visiting museums and private collections, and observing people in busy districts and at weddings.

The results suggest three ways in which ethnic dresses seem to survive in contemporary times. First, ethnic dress exists within the context of particular traditions such as the Japanese tea ceremony. However, in this case ethnic dress will be confined to very specific and limited situations. Second, the Vietnamese case shows that people continue to wear ethnic dress as everyday dress because it accommodates contemporary life-styles, fashion, and physical environments with little modification. Finally, it was the most distinctive and easy-to-copy characteristics of the ethnic dresses that the fashion world adopted from them when fashion designers wanted to incorporate the styles of ethnic dresses.

BODY IMAGE AND DISORDERED APPEARANCE MANAGEMENT BEHAVIORS AMONG KOREAN FEMALES IN KOREAN FASTING CENTER

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Socio-cultural factors are thought to affect the development of body image. It is increasingly recognized that Korean women enroll in formal weight-loss programs such as fasting centers to lose weight, the pursuit of thinness. Comparisons to Western beauty standards may affect Korean women's perceptions regarding their body image and problematic appearance behaviors. A study was conducted for the purpose of examining and understanding body image and appearance management behaviors among Korean females in the Korean Fasting Center Program.

Forty Korean females enrolled in a Fasting Center Program (in which fasting is promoted) were interviewed. A field study was conducted in which the investigator stayed with the women for five days in a Korean Fasting Center Program, observing and interviewing. Most of the subjects (87%) were dissatisfied with their bodies. They perceived a greater discrepancy between their actual weight and their ideal weight (from 11 up to 88 lbs). Western features (22.8%) were the most important components of Koreans' standards of beauty, followed by inner beauty (21.1%). Half of the subjects (57%) reported that they engage in "fasting" as a diet, followed by "inducing vomit" (17%) and "using diet pills or laxatives" (14%). Half of the subjects have "always" dieted. Sixty percent of the subjects had participated in Fasting Center Programs more than twice.

EVOLUTION AND SYMBOLISM OF "TIKKA" OR "BINDI" IN INDIA

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Symbolic interaction theory was used to examine the symbolism of "Bindi" and "Tikka" over time.

"Bindi" originated as a red dot made of powder and was worn on the forehead by the married women. The legend holds red as the color of blood that represents the source of life and energy. Many see it as the third eye that represents the metaphysical source of concentration, intuition, knowledge, strength, and wisdom of Lord Shiva (The Tika Tradition, 1985).

"Tikka" was worn by young children to ward off evil spirits, by priests to indicate religious disposition, and for observance of social rituals. Occasions, reasons, and dispositions determine their constitution which could be sandal paste, carbon paste or powder, saffron and rice, or red powder.
Today, "Bindi" is available in a variety of forms, shapes, and colors. It is used more as a fashion statement except for the observed rituals. However, the "Tikka" still holds the traditional meanings. Examining any regional and gender differences, design, and application in "Bindi," religious significance of "Tikka," and reasons for wear would yield worthy information.


PERSONAL APPEARANCE AND OCCUPATIONAL ROLES: A CLASS PROJECT FOR A GENERAL EDUCATION COURSE

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The purpose of this creative teaching strategy is to outline a project appropriate for students in all areas of study that could be included in an updated social/psychological course. The specific objectives of this assignment are to (a) identify and understand the functions of white-collar, blue-collar, and uniform apparel in association with occupational roles and (b) investigate attitudes and beliefs of wearers of white-collar, blue-collar, and uniform apparel.

For the project, students are to interview three individuals, one person who wears white-collar, one who wears blue-collar, and one who wears uniform apparel in the workplace. Interview questions relate to occupation, age, level of education, length of employment in the position, type of occupational apparel worn in the workplace, reasons a particular type of occupational apparel is required in the workplace, length of time a particular form of occupational apparel has been worn by the participant, advantages and disadvantages of wearing a particular form of occupational apparel, and responsibility for purchase and care of the occupational apparel. Based on the information, students are to determine attitudes and beliefs about wearing a particular form of occupational apparel, the assets and liabilities of wearing a particular form of occupational apparel in the workplace, and whether or not the forms of occupational apparel meet the needs for which they were designed for both employees and employers. The students submit a written report to the instructor for course credit.

THE DIRT ON ALTERNATIVE LAUNDRY PRODUCTS: DO THEY REALLY WORK?

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With increasing frequency, laundry alternatives such as plastic balls or discs filled with liquid are showing up in the market. The manufacturers claim the products clean as effectively as detergents with greater ease, economy, and environmental friendliness. In addition, these replacement products are touted as using no harsh chemicals to pollute the environment or damage clothing. The question is, do the products work?

Laundry sets were assembled that included purchased samples of cotton, polyester, and cotton/polyester blend fabrics that received presoiling or no soil treatment. Each laundry set was then randomly assigned to one of seven wash solutions: (1) plain water, (2) AATCC detergent, (3) plastic laundry ball (Laundry Solution), (4) plastic laundry disk (Laundry CD), (5) plastic anti-bacterial disk (Turbo-Plus), (6) scented detergent, and (7) unscented detergent. Three replications of each fabric-soil-laundry method combination were conducted.

Evaluation procedures utilized visual inspection by three trained raters and standard evaluation protocols (ASTM Standard D-2960). Results were evaluated using analysis of variance to establish significant differences between test treatments and fabric-stain combination.

Laboratory treatments showed that the soiled fabrics laundered with detergents rated significantly cleaner than those laundered with laundry alternative products. Those soiled fabrics that were laundered with laundry alternative products showed no significant differences in cleanliness from those fabrics washed with plain water only.

UV PROTECTION OF FABRICS: A PRELIMINARY STUDY ON THE EFFECTS OF USING LAUNDRY STARCH

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Clothing can be used to reduce exposure to ultraviolet radiation since textile fibers and fabrics can absorb or reflect radiant energy
Clothing strategies to minimize exposure to UVR may include wearing clothing made of fabrics that are good absorbers or reflectors of UVR.

The addition of laundry starch to fabrics may fill the spaces between the yarns and increase cover factor, a determinant of the UVR protection afforded by a fabric. The purpose of this preliminary study was to measure the effect of applying liquid laundry starch to various fabrics on the transmission of ultraviolet radiation through the fabric. The independent variables were (1) fabric type and (2) amount of starch applied. The dependent variable was the measurement of UPF (ultraviolet protection factor) using a spectrophotometer. Four fabrics representative of those commonly found in garments worn in outdoor work situations were tested and three levels of starch add-ons were used.

Results indicated that the addition of starch affected the UV protection most pronounced in the fabrics with the least cover factor (i.e., the single jersey knit and the plaid shirting fabric) and were less pronounced in the fabrics that were heavier and more tightly woven (i.e., chambray and denim). This preliminary study indicates that the addition of starch to garments may have potential for reducing UVR transmission through the fabrics and could be part of a clothing strategy designed to reduce exposure to the sun's harmful rays.

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ELYSIAN FIELDS

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The purpose of this design was to fulfill the modern woman's desire to be feminine—yet bold, flirtatious—yet graceful, while maintaining a sensitivity for creativity and fine detail. The creation of this design was inspired by nature as seen by humans—with colors taken from landscapes and stylized representations of objects found in nature in the form of an abstract floral print and a floral motif jacquard weave.

This knee-length empire waist dress is constructed from a salmon/black 100% silk jacquard with a stylized floral print. The low, shapely neckline is complimented by soft gathers at the bust line. Asymmetric tucks adorn the left front side seam on the skirt segment of the dress and softly drape across the body. Design challenges were completed with the pattern making technique of draping. The garment is fully lined and features French seaming, Hong Kong finishing, and delicate hand stitching.

SKINS OF LEATHER AND PELTS OF FUR

Rebecca Pehowski
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When designing this jacket and skirt, I was trying to create a look that was different from others by using unique details on the closures and a stylized fuller cut collar. Through my internship at Harley Davidson in the Motorclothes Design Department, I gained an interest in the use of leather, which inspired me to design and create this ensemble.

I wanted the collar to look like a cape of long wavy hair draped down the front, over the shoulders, and flowing down the back. I chose black Tibetan lamb fur to create this effect. I also wanted to combine fur with leather in this ensemble so I used black lamb skin leather for the jacket and skirt.

I covered cording and made loops out of the leather to create a unique effect for the closures on center front, side pockets, and cuffs. The buttons are covered with the same leather to create a tone on tone look of all black leather.

I used a tricot interfacing on the leather skins which helped it glide through the sewing
machine without getting stuck. This also gave the jacket more durability and a more tailored look. The jacket and skirt have princess seams and are fitted at the waist. I wanted the jacket to look more elegant than sporty so I glued and pressed the seams open on the inside rather than topstitching them.

The fur collar is detachable by snaps on the neckline facings. This gives the jacket versatility because it can be worn with or without the fur collar. All pieces are lined with 100% bemberg rayon lining. The jacket and skirt were flat patterned and the collar was draped.

SUNSPOT

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Inspired both by the contrasts between brights and black and by an Art Deco fashion illustration of 1930s beach wear, I incorporated bright spiral shapes into the design. The moon shape at the base of the neck, which has been beaded, is reminiscent of an old necklace of my grandmother’s.

The dress is black acetate satin with six colorful appliqués of hand dyed silk that have been applied to the dress with a machine blanket stitch.

The silhouette has a fitted bodice with modified princess seams continuing into a flared skirt. Additional flare is provided by two godets originating at hip level along the back princess seams. The dress closures include a side zipper and hooks and eyes on the left shoulder.

WHAT DREAMS ARE MADE OF

Carolyn Schactler, Central Washington University, Ellensburg, WA 98926

This design was inspired by a young girl's fantasy for a pink and white satin gown with fur. The textured and permanently pleated polyester satin provided its own fitting because of the flexibility of the pleats. The pleats, used vertically for the dress, were used horizontally at the bust line. The entire gown is lined with a soft polyester crepe and is held up by small spaghetti straps of pink satin.

It was a challenge to design the coat to utilize both fur and satin. The coat is a tea length coat with set-in sleeves and a stand-up collar. The six horizontal rows of white fur presented two problems: dealing with the bulk of the fur and with its strong nap. A narrow satin binding was necessary to finish the upper edge of the fur using both hand and machine sewing.

The "fantasy" of the design seemed to call for the fur muff, using the pleating of the dress fabric for a perfect finish in the ends of the muff. It truly is a dream of a dress!
CELEBRATION CAPE #28: A TRIBUTE TO
ESTHER MEACHAM

Robert Hillestad
University of Nebraska, Lincoln, NE

This design was inspired by the beauty of rayon boucle. The garment structure was created from rayon ribbon through the technique of hand-knitting. During the knitting process, lengths of rayon boucle were carried along on the face of the structure and manipulated into loops, then locked into position through knots. The garment was further embellished with tassels that were both formed and wrapped by hand. It was designed as a tribute to Dr. Esther Meacham, one of my mentors at The Ohio State University.

CRIMSON TIGRESS

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The challenge was to successfully interpret and translate a child’s Chinese folk art apparel item into an adult, contemporary apparel item.

Tiger Hats worn by children, primarily boys, between the ages of one month and five years to ward off evil spirits were the inspiration. Different ear, tail and tiger body motifs were used in various provinces.

Crimson Tigress is an adult woman’s cocktail hat having an abstract tiger face. All the pattern pieces are original. The hat base is buckram padded with cotton quilter’s batting. Tiger facial characteristics made from polyester or silk satin were embellished with embroidery motifs and hand stitches. The tail is gold stuffed fabric and protrudes from the back of the hat. The unembellished tiger back is the hat crown. The hat is completely hand sewn, as a Chinese child’s hat would be. A blanket stitch was used to attach the lining to the outer portion which is edged in gold braid.

FISH

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The object of this design was to develop a garment for a three-year-old male child that would provide a playful element. My inspiration came when examining the raglan sleeve form and observing its shape to be similar to a Chinese wind sock. The garment is constructed of cotton corduroy, cotton twill, and ultra suede. The A-line top has a bound
neck and back zipper. The raglan sleeve was shaped to form a fish, the cuff forming the gill, and the head facing the child's hand. This placement encourages the child to make the fish "swim" by moving his arms in a waving motion. A full pull-on pant with a banded ankle was designed to complement the colors of the top.

DILEMMA

Zoran Dobric and Cecile Clayton-Gouthro
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The designs are allegorical personifications of the internal dilemma inherent in the dualism of human existence. The outer layer reveals the intimate relationship between the two meanings of decadence—opulence and decay. The jacket opens to reveal the essential spirituality and nature represented in the dress. The crochet represents the roots of humanity emerging from the torso of Magna Mater. My expression of this dilemma is a call to reconcile our spiritual and carnal beings, much needed for a new outlook on life in a new millennium.

The coat is made of hand-painted satin and taffeta and can be transformed into a jacket and cape. The dress has a skirt made of crystal organza lined with iridescent taffeta, and a hand crocheted top.

FOR THE BIRDS

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Inspiration for this jacket and skirt design came from a keen interest in bird watching plus a fascination with the high relief textures of trapunto and quilting techniques. Various loft battings sandwiched between the outer Dupioni shot silk and inner muslin backing for the jacket helped create the desired relief and plumage on the birds. Stippling techniques were used for the quilted background. Narrow piping frames the outer edges of the jacket. The unquilted skirt is cocktail length with a side-front pleat. After stitching in approximately 3/4 of a mile of thread, creating the stippled background, I realized that this was not a garment for mass production; it really was "For the Birds."
FROM SHEEP TO CHANEL

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The inspiration for this design came from the limitations of the fabric, a handwoven wool boucle. Loose weave, coarseness and limited yardage presented a problem for design choice.

Finishing techniques were employed to improve the density, opacity, and softness while increasing stability and reducing the potential for snagging. Pronounced definition of the yarn colors and striped effect in the prefulled fabric became muted and blurred to provide for a more sophisticated appearance. Because the fabric now had considerable bulk, the styling created by Coco Chanel in the late 1950's, based on a Tyrolian jacket, was chosen as the ideal silhouette. Bulk was further reduced by channel stitching lining to the edge of the garment.

To augment the design, fringe was created from the unfulled wool and used along with braid, silver milagras and glass beads to highlight the front opening and pockets. Lining and bias binding mirrored the colors and character of the outer shell.

IMPERIAL JEWELS

Paula B. Sampson
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The goal of this design was to highlight the heavily beaded, sequined, and embroidered purple fabric (purchased) in a special occasion ensemble for a tall woman who wants to be noticed. Red, green, and purple satin (polyester) fabrics were chosen to echo colors found in the beaded fabric. The beaded fabric had gold metallic scalloped edges on two sides that were incorporated as borders in the design of the peplum and the skirt. Minimal seaming in the borders was chosen so the beaded pattern would not be interrupted.

The garments were designed by draping, flat pattern, and drafting. The height of the beaded sections was determined by the natural break in the beaded fabric where there was only embroidery to maintain the integrity of the beaded pattern. However, there was not enough scalloped edging for the peplum bands as designed so a scalloped edging was created (satin stitched) on a section of beaded fabric for half of the peplum. Flare also was desired in the peplum, but since the beaded section was on straight grain, the effect was achieved by applying the section at an angle. A fabric layer was added to support the weight of the beaded fabric. The shoulder detail shows a "Star Trek" uniform influence.
PERSONAL PATHWAYS

Melanie Richardson Carrico
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The concept behind this design was to create a vest that would have an interesting surface design but be just one color, allowing the wearer more options when completing an outfit. The inspiration for the surface design comes from the black-on-black pottery of certain Pueblo Indians. The vest is short, coming just to the waist, unfitted, and made of black suede and black leather appliqued on each other. The vest is lined to the edge with a rayon lining. The shapes for applique were cut with an X-acto knife and then sewn using an industrial sewing machine. Suede and leather were used because the raw edges do not need finishing to prevent fraying.

SCREEN DRESS

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The designer purpose revolved around using non-traditional materials to make a wearable garment. The material selected was silver fiberglass window/door screening, grommets, silver metal links, chains, and silver cord. Design criteria included a traditional fit to the garment, the garment must be a showpiece, undergarments would not be necessary, and the physical comfort of the wearer must be upheld. A full-length, sleeveless evening/entertainment dress was created for this project.

The inspiration for this garment was structure, similar to something being "built." The Empire State Building served as my main reference with its obvious "built" look. Several layers of screening roll down the sides, serve as the skirt of the garment, and mirror The Empire State Building's layered effect. The screening on the bodice was form fitted by the use of princess seams and the lacing in the front. The techniques and media selected were used so that the building idea was carried throughout. Traditional sewing was not done; instead silver links were used to join seams, metal grommets and lacing for the closing, and a chain from the hardware store to hold the neck opening together and to trim the waistline. These elements suggest structured building materials and followed the inspiration.

SMOKY MOUNTAIN BORDER QUILT

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Problems Statement: The purpose was to expand a finished quilt sample into a queen sized quilt, to learn and practice a variety of hand stitching techniques, and to produce a flat quilt without the use of a frame or hoop.

Inspiration: The inspiration includes (1) a desire to improve the quality and quantity of stitches per inch in hand quilting techniques, (2) a quilt instructor's challenge that stated "it is impossible to quilt this without a frame or hoop," and (3) motivation to produce a project that reflects the environmental aspects of the designer's home, located at the border of the Great Smoky Mountains National Park.

Description: The center is natural white cotton, expressing the early use of unbleached fabrics in the products of the mountain people. The borders are forest green, symbolizing the heritage of the pristine forests. A floral-striped trim depicts flowers, vertical trees, and logs used in homes. The stark-white borders provide an expression of the mountains in summer and winter.
ST. JOHN THE EVANGELIST IN NIGERIA

Carol Bormann
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Problem Statement: The images for this chasuble, designed for a priest from Nigeria on temporary assignment in Oklahoma, are adaptations of Christian symbols. The wheat and grapes represent the bread and wine of communion. The eagle stands for St. John the Evangelist, the patron saint of the parish where the priest is currently assigned.

A pieced serape stripe of rich golds, reds, and bronzes form the dominant cross motif. The wheat, grapes, and eagle are appliquéd. Embroidery defines details within the bird while satin cording is couched to form the tendrils on the grape clusters. Due to the frequent wearing of the garment in the hot climate of Nigeria, the polyester blend base fabric was selected for its cleanability and woven openwork stripes which allow for additional ventilation. A satin cross at the neck and additional serape stripes provide accents on the companion stole.

THE BIO-RHYTHM OF THE 21ST CENTURY

Kyoung-Hee Cho
Mokpo National Univ., South Korea

Concept and Inspiration: This project was from a design series from the "Future & Space Look" collection. With an emphasis on environmental image of the 21st century, the rhythmical movements of the regular and irregular pleats with structural shape were explored to create a symbolic expression of bio-rhythm in a living body.

Research Process: Microscopic photos of bio-rhythm and genes in motion provided design ideas. Draping techniques were mainly used to develop the pattern.

Techniques: Gold metallic lame was used for the basic dress and the pleated gold metallic fabric was used for the flounce and bolero jacket. The half folded black horse hair band and pleated lame band were together trimmed on the curved line following the body line, which was carefully handsewn. The structural shape of the lower part of the dress and coiled shape of the bolero jacket sleeve were created by using the "bending" characteristic of the pleated lame. The acrylic cabochons were used as a symbolic expression of the soul of a living body.
TILED "ELLE"-GANCE

Becky A. Geisel
Centenary College, Hackettstown, NJ 07840

The challenge was to create wearable art that illustrates the importance of the media in the fashion industry. Fashion magazine covers that are a promotional tool are used to create wearable art. A simple shift dress pattern was drafted to emphasize the intricate detail of the tiled fabric.

WATER METRE

Adele Zhang
University of California, Davis, CA 95616

In order to explore the freedom of using hand woven textiles, I started to weave my own fabric to be used for my designs during this past year. This project is the first completed piece of my woven work.

During the weaving process, I was deeply influenced by Monet's color and his impressionistic painting style and method. I used Procion dye to paint the weft yarn in the image of abstract water patterns first and then wove it by using weft-faced broken twill structure. Based on the surface result which is very elegant and soft looking, I cut the fabric into an oriental silhouette to obtain more mystery and a feminine looking fashion. Also I hand-dyed silk for a shirt and skirt to accompany the long jacket. It makes this design more functional and complete.

Couture details include hand-sewn scalloped lining at the neckline, a mandarin collar, and Chinese hand-knotted buttons.

WATERLILY DRESS

Mee-Sung Choi, Dongshin University, Naju, Chonnam, 520-714, Korea
Susan P. Ashdown
Cornell University, Ithaca, NY 14853

The objective of this draping project was to create a formal ensemble for a well dressed, sophisticated women. This is the second design of a series of garments inspired by the beauty of the pure shapes and colors of the waterlily.

In the first dress of this series an ivory bodice emerged from a green overskirt; here the colors are reversed. The collar and overskirt made of ivory wool crepe frame the deep green wool dress. The collar shape, which imitates the fluid elegance of the waterlily leaf, frames the face and falls...
which imitates the fluid elegance of the waterlily leaf, frames the face and falls gracefully over the shoulder. The overskirt is continued smoothly up to the shoulder in undulating waves of fabric. The inside dress skims the surface of the body to show the beautiful curve of the body emerging from the overskirt. All of the designs in the waterlily series are symmetrical when viewed from the front but asymmetrical when viewed from the side, mirroring the symmetries and asymmetries of the human body. These designs therefore exhibit a unique silhouette from every angle, truly complimenting the three-dimensional body.

**BUTTERSCOTCH KIDS ACTIVE WEAR**

Sarah Ball and Eulanda A. Sanders
Colorado State Univ., Fort Collins, CO 80523

The purpose of this project was to design a lightweight jacket and pants for children sizes 24 to 36 months for the safety conscious parent. The garments were constructed from 100% nylon with a cotton/polyester knit lining. The water repellent, wind block fabric, along with the reflective tape across the back of the jacket and down the outseams of the pants created garments safe for outdoor activities. During the first sample stage of this project it was realized that more room was needed for a diaper and that the elastic in the waistband of the pants stretched out of shape. Changes were made to the pattern and the construction method of the waistband was modified before the final sample was constructed to eliminate the previous problems.

Bold colors such as red and yellow in contrast to the navy blue were selected since these colors appeal to a variety of target markets. The "Butterscotch Kids" logo was developed using computer-aided design and was digitized into a computerized industrial embroidery machine to create the patches sewn to the jacket and the pants.

**ROYAL CANADIAN MOUNTED POLICE UNIFORM APPAREL**

Sandra Tullio-Pow
Ryerson Polytechnic University
Toronto, Ontario, Canada. M5B 2K3

Equal opportunity hiring practices have allowed many women to enter historically non-traditional occupations. This has presented many challenges to institutions such as the Royal Canadian Mounted Police (RCMP) and has created a need for updated maternity apparel.

A focus group of female officers from across Canada identified a number of problems in the current RCMP maternity uniform with regard to comfort and fit, styling, functionality, and fabrication. The members felt the maternity uniform did not reflect the image, authority, and prestige of the nation's police force.

Based on the research, prototypes were developed, prioritizing the needs of operational versus administrative members. Maternity designs for a trouser, shirt, and tie were adapted from the unisex standard issue operational uniform. An all-weather maternity coat and jumper style dress were also developed. All four prototypes were field tested for a period of 6 months; modifications...
were made, after which the uniform was adopted for standard issue.

ALL BUTTONED UP
Wilma Ridgeway
Ball State University, Muncie, IN 47306

The concept of creating a design that would address the needs of the 55+ woman is captured in "All Buttoned Up." Many women 55 and over no longer have a waistline that they especially want to emphasize. Many of them travel and they want comfort, ease of care, and versatility in their clothing.

This garment of light brown, linen-weave, rayon-polyester fabric meets the above criteria. The dress is in three parts, each buttoned with 12 coconut shell buttons to the next part. The unfitted, cool, summer garment can be worn three ways. Worn with all three parts it is an ankle-length garment. Remove the bottom tier and the dress is knee length. The top part can be worn with coordinating skirts, shorts or slacks. A 2-inch band with buttons attaches to the shorter versions to give a finished look.

The pattern was created and plotted on a CAD system using basic slopers. Raw seam edges were serge to prevent fraying and to give a finished appearance.

BEAUTEOUS BATEAU
Emily Gunter and Nora M. MacDonald
West Virginia University
Morgantown, WV 26506

Beauteous Bateau was designed for women 55-to-75 years of age. The problem was to design a dress to fit the changing body of an older female consumer and to provide ease of dressing. A 71-year-old woman served as the fit model for this project.

Beauteous Bateau was made of chocolate brown, royal blue, and gold floral printed calico of 100% cotton. The royal blue bateau neckline and wrist bands were constructed in a 100% cotton broadcloth. Contour darts were used to fit the torso. The front pair of darts were partially released to allow for extra room over the abdomen. Bust darts provided fit for the bust line of this shift dress. The front button and buttonhole opening with an extended-fitted facing provided for garment entry. Gold and blue cloisonne-type buttons were used to adorn the front closure. Major seam allowances were clean finished while armhole seam allowances were zigzagged. The bateau neck band and sleeve bands were self-lined and slip stitched. Flat pattern was used to design the pattern.
Problem Statement: To design an outfit for older women that is comfortable, easy to care for, and can be worn in a variety of situations.

Design Inspiration: Focus group interviews were held in five states with women over the age of 55. Design decisions were based on these interviews. Fabric choices were directed by a larger research project, which tested fabric feel and perceptual responses.

Description: Three-piece casual suit designed with the following features: Jacket has a yoke that allows for fit adjustments through a sizing system that addresses shoulder "erect" and shoulder "rounded forward." The neck edge is a clean facing and pockets are easy access. The neck of the T-shirt has an overlapped front. The pants are designed to be comfortable and fit great. The waist seam is interfaced with elastic to provide slight ease without the bulk of more traditional elastic waist approaches.

Techniques: The garments were sized and developed for women over the age of 55. The patterns were drafted and draped with strict focus on the changing needs of older bodies. An industry partner, Koret of CA, then manufactured the resulting garments. A total of 10 sizes were produced in each garment. Standard industry sewing techniques were employed. The garments were then fit and wear tested at five locations in the United States. Initial response has been overwhelmingly positive, and subjects are anxiously awaiting improvements in the marketplace including design choices and fit options that are targeted toward their needs.
The supply chain for apparel has failed the "ACTIVE and AGELESS" customer. Women, in particular, experience figure and coloration changes that make shopping for apparel a frustrating experience. Frequently they require a meld of sizes to accommodate their changing figures. The neutral-colored "uniform" of the upwardly mobile female career executive does little to enhance the skin and hair color of older customers. Many dollars that women are willing to spend on apparel are spent elsewhere because the marketplace does not offer saleable options. "Comfort in Coral" was designed for my mother in order to accommodate a need in her wardrobe that is increasingly difficult to fill at retail. At 69 years old she is still active in a number of activities and organizations where she likes to dress up, yet she rarely finds ensembles that fit her figure. Criteria for this design were developed cooperatively in order to better understand her frustration. Color, proportion, comfort, and care were prioritized.

This design was knit on a Studio knitting machine using a wool/rayon blend yarn. My mother chose the coral/wheat colorway. The fairisle pattern was punched into a card that was read by the knitting machine. The small scale of the geometric pattern and the subtlety of the color palette gives the jacket an understated elegance that we were trying to achieve.

Construction challenges were encountered in the hidden placket closure and the collar. The closure was accomplished by knitting an attached facing and using a fabric buttonhole strip to eliminate bulk. The collar was knit using a 1 x 1 rib with the stand knit circularly so that the neck edge of the jacket could be attached and bound off neatly.

The design features of this garment include a jacket and pant combination that are one piece in the back but then separate in the front. The pant feature allows the wearer to easily don the garment and allows the pant to fit over different stomach area figures types. The jacket is attached in the back of the pants but opens fully to allow for the sleeves and front to be easily donned. A problem with current scuba diving suits is that the jumpsuit styling is very difficult to don for persons with limited range of motions.

The front closure used in this design is a specially designed zipper. The zipper is closed by hooking the sliders together instead of the usual channel insertion techniques used in most separating zippers. This zipper is specifically designed for persons with limited dexterity.

Additional features of this design are zippers on each leg opening and adjustable wrist closures. These features allow for easy in donning and doffing.

Kilimanjaro is the name of a mountain range in Africa pictured on the unique batik that was the inspiration for this jacket. The color scheme of the batik completely changes on each side. In order to enhance the unique color scheme of each side of the batik, a floor-length kimono-style reversible coat was developed. A 50% cotton, 50% linen fabric was chosen, and equal amounts of black and beige were purchased.

The pattern for the coat was developed using the flat-pattern method. Construction of the jacket focuses on the center back, where the batik is assembled between the two layers of the jacket, enabling it to be seen on both sides. The band collar finishes the neckline with style, also constructed to give a different design detail. When worn with the black side out, there is a striking beige stripe that directs the eye in a vertical pattern, and when worn with the beige side out, there is a black stripe and offers the same effect. Side slits offer another vertical accent, giving the illusion of height.

The batik belongs to a friend who is 59; therefore the coat was designed for her. She enjoys its flexibility, its comfort, and the
manner in which it flatters without being restrictive in fit in any way. An avid fan of the opera, she has had many complements on the coat.

LITURGY

Vincent Quevedo
Univ. of Nebraska, Lincoln, NE 68583

"Liturgy" was the result of studying liturgical clothing and stain glass windows. The colorful glass and fragmented arrangements of a contemporary stain glass window inspired this design. The silhouette of the pattern was ideal for many body types and was ideal for quilting.

The research process involved studying various sewing techniques, sample making, library research, and a visit to the university museum. A combination of flat pattern and draping techniques were used to develop the garment pattern on a fit model. Several women were surveyed to acquire the necessary information regarding color, fit, and appearance. The "kimono" style coat was appropriate for accommodating many body types as well as fit and comfort.

Techniques used to construct this design included quilting techniques inspired by Madison Avenue designer Koos van den Akker and Geoffrey Beene. Channel stitching was used in large areas to give it texture and to create a three-dimensional effect on the fabric. Fabrics used to create this outfit consisted of cottons, cotton blends, polyester, and acetate.

NAUTICAL AND NICE

Carolyn Schactler, Central Washington University, Ellensburg, WA 98926

The goal of this research was to create a casual garment for the petite market for women over 55 who say there is no selection in clothing for their short figures. Standard wale corduroy in dark navy was the chosen fabric for the jacket with a red polyester faille lining. Brass naval insignia buttons and gold braid provide the special finishing touches. Facile bound button holes add a quality look.

The design was inspired by my neighbor's navy nurse uniforms. A stand-up collar enhances the military image and helps to camouflage the neck. It was carefully draped to be a little lower in the front, providing room for a lowered head. The draped jacket has dropped shoulders with small shoulder pads, allowing ample room in the upper arm area for stiff shoulders and heavy arms.

White lined polyester pants are worn with the jacket. They were drafted to be slender with a back elastic for flexible comfort.

POCKET PANACHE

Thayer Behmke and Nora M. MacDonald
West Virginia Univ., Morgantown, WV 26506

Pocket Panache was designed for a 55-year-old woman. The client was petite and large busted and had a sophisticated, gamine personality. She was interested in a design which would cover spider veins in the knee area. The dress had above-elbow, fitted, set-in sleeves, which covered less-than-shapely upper arms. The pullover, chemise styling provided for ease of entry and skimmed the body to cover a slight increase in girth at the waist and through the tummy.
This design was made from 100% linen. The russet color was selected to complement the client's coloring, while linen was selected as a comfortable fabric for a summer dress. A tea-length design was chosen to cover the client's spider veins and two side seam slits were used to allow for ease of walking. Three pearl buttons highlighted the slits. A patch pocket with a smaller pearl button was placed on the back to provide a touch of whimsy. The slightly lowered neckline was finished with a reversed fitted facing which was top stitched. Both slits, the lower hemline, and sleeve hemlines were top stitched to coordinate with the neck treatment. The flat pattern method of design was used.

REFLECTIONS AND FITNESS

Jean K. Dilworth
Eastern Illinois University

The safety vest design entry was inspired by the desire to provide safety and amusement for couples 55+ while they were walking, jogging, or cycling. The reflector tape stylized body shapes are tied or partially sewn to the vest's black polyester mesh fabric. This method of attachment lets the body shapes bounce and twist as the wearer moves with their partner on their favorite trail. Additional reflections, safety, and fun are gained for the wearer with the beaded eyes, variegated thread edges, and black and white ribbon ties of the body shapes. The large armholes, bound edges, and curved center front were designed for comfort and ease of wearing.

Creative center front closures are made by attaching velcro to the body shape's head which lap both left and right on both vests. The vests are designed to provide the greatest safety and most entertainment when worn with a partner. The placement of the reflector bodies on the vests' fronts and backs is intended to create a wider and more erratic image to alert those driving cars, riding skateboards, or using roller blades near the wearer. Therefore, the vests are shown as a pair and one functional design.

SUMMER SWIRL

Jessie Arnold and Nora M. MacDonald
West Virginia Univ., Morgantown, WV 26506

Summer Swirl was designed for the 50-to-75-year-old target customer who may have trouble dressing. A side zipper and a shoulder placket with a button/buttonhole closure were used for ease of dressing. Long, fitted, set-in sleeves were chosen to cover potentially less shapely arms and to ward against chill in a cooler environment. The dress could be worn for a variety of social and cultural occasions.
activities. A 71-year-old woman was used as the client for this design problem. She was active, energetic, sophisticated, and tended to express herself through unusual jewelry.

A shift silhouette was chosen to skim over a slightly protruding abdomen while the swirling midriff yoke was incorporated into the design for accent. The jewel neckline dress was constructed of a 55% linen/45% cotton in a linen weave fabric using four different colors. Three midriff bands in rose, sea green, and white wrapped around the body in asymmetric curves. Seams were finished with a zigzag stitch because of the bulkiness of the fabric at seam intersections. A clean finish and slipstitch were used to finish the lower hem and the fitted hem facing of the sleeves. The flat pattern method of design was used to make the pattern.

TRIBAL ROOTS

Nancy O. Bryant and Andrea Wiggins
Oregon State Univ., Corvallis, OR 97331

Problem Statement/Research Process/Pattern: The target customer is a woman over age 55 who appreciates both fit and fashion and wants an elegant, easy care outfit. The pants pattern was developed as part of a graduate student’s study on the physical changes in the aging female body. The jacket pattern was created by flat pattern.

Fabrics/Techniques/Inspiration: The jacket has slenderizing vertical princess seam lines and a curved back yoke for better fit. The iridescent rayon/linen blend has a purple warp and blue weft. The jacket is lined in rayon and has been underlined in silk organza to support the structure of the jacket and its appliqué. Batik appliqués decorate the upper back, right upper front, and left lower sleeve using iridescent thread. Beading accents the batik appliqués.

ANCESTRAL HERITAGE

Kue-Nam Shim
Mokpo National University
Nancy O. Bryant
Oregon State Univ., Corvallis, OR 97331

Problem Statement/Research Process/Inspiration: This ensemble is a joint creation by an American professor and a Korean professor, inspired by the colors and shapes of ancient Korean costume. Interpreted into a contemporary yet timeless design, a layered effect was created with pants, sleeveless shell, and vested coat. The vest and sleeves of the coat have a shingled effect to accent the sheer fabric.
BEADED BAROQUE

Diane Sparks
Colorado State Univ., Fort Collins, CO 80523

The design challenge was to hand-dye silk devore velvet fabric to match the Silver Willow ensemble, then to create a simple evening dress with black diamond crystal beading at neckline and shoulder straps. This dress can be worn with the Silver Willow coat or the cardigan jacket of the Sparkie Cocktail suit.

BEADED ELEGANCE

Catherine Black
Florida State Univ., Tallahassee, FL 32306

Purpose: To create a show stopping dress for special occasions. The dress was designed for the woman who likes a touch of drama.

Inspiration: This dress was inspired by various Victorian crazy quilts. Inspiration also came while researching beading, embroidery stitches, and quilting techniques.

Description: I recognized that if such a patchwork quilt were to be created within a garment, the silhouette must be very simple. A short strapless dress seemed to create the best canvas. The dress is constructed of 100% cotton velveteen and the beads are primarily seed and bugle. The bead "stitches" replicate "traditional embroidery" stitches.

Techniques: A princess-line dress block and draping were used to create the pattern. After the muslin was constructed, the dress design was critiqued, and modifications were made. Eighty-two pattern pieces were cut and sewn to form the quilt foundation of the dress. Then thousands of beads, in various colors and shapes, were hand-sewn along the seam of each quilt patch. The inside of the dress is fully boned and lined. In order to continue flow of the patches an invisible zipper is placed at the side of the dress.

BOLD ELEGANCE

Emma Britton
Marist College, Poughkeepsie, NY 12601

The inspiration for this project was to create a modern version of an 1890's garment. The expression that I wanted to communicate through my garment is the bold, self-assured look of today's woman mixed with the elegance of the 1890's.

I made the jacket and gown out of a polyester satin material. The jacket is simple and the only decorative parts are the sleeves and the collar. The center front buttons are hidden to give the jacket a sleek and simple look. The sleeves have fully functioning buttons from the bottom to the top. The collar is shirred and beaded, then appliqued onto the base collar. Both the buttons on the sleeves and the beads on the collar are black and shimmer when the light hits the garment. The back of the jacket is opened from the waist to the hem.
and the train of the dress is shown. The purpose of the train seen through the back of the jacket is to give the jacket depth and to make it more interesting.

The dress is alternating stripes of pale yellow, pale beige and thinner stripes of black. I serged the three colors in the alternating striped format that I wanted and then draped it onto the bustier form. The concept for the dress is line manipulation. The dress is on the bias and the lines form chevrons at the center front, the center back, and both side seams. The train is attached to the back of the dress on the bustier support structure with hooks and eyes. The train is made out of the same striped pattern as the dress but the stripes run horizontally. The top of the train is pleated and then goes past the hem of the dress. The mixture of the more structured jacket with the sexier, bias cut dress is my rendition of the bold and elegant mixture of the 1990's and the 1890's.

BOUNDED CURVES

Mary Ruppert-Stroescu
Stephens College, Columbia, MO 65215

Developed as a demonstration piece while teaching Tailored Design: Suits and Outerwear, the design of this jacket evolved around the special tailored collar. Using the flat-pattern technique, the shape of the collar was sketched, the style lines, pocket detail, and hem length were established. Modern, industrial tailoring techniques using weft insertion, hair canvas, sleeve heads, twill tape, and wigan were used. In order to provide a challenging example to the students, a bound buttonhole in a shape reminiscent of the collar was developed.

The 4-button closure is strategically placed above the waist and the edge falls to a cut-away extended front in a graceful curve. The shape of the double-welt pocket with flap contributes to the overall curvature of the design. The antique buttons are from an now-defunct factory in Germany, purchased at a flea market there. Their unique shape accents the details without detracting from them.

The 100% wool gray flannel and 100% wool black crepe were chosen and used in a manner to strategically emphasize the design details. The body of the black wool crepe is lighter than the flannel, and each piece of crepe is backed with weft-insertion interfacing. Use of the crepe in this manner provides body without bulk, and allows shaping of the collar with ease.

BROWN AND BLACK STUDY

Jesse Khong and L. Susan Stark
San Francisco State University
San Francisco, CA 94941

The purpose of this garment was to reveal the body while exaggerating a part of it using closely allied colors. The form fitting shape of the garment reveals a shapely silhouette and the curved abstract inset winds around the body from front to back. However, the extended front piece exaggerates the shoulder line and distorts the body in a subtle manner. Inspiration for this asymmetrical, brown and black wool double knit form fitting evening dress came from couture and tailoring techniques which are used in strapless evening wear. The exaggerated point needed interfacing and shaping, the set-in brown abstract piece which wraps around the body is joined at the seam lines with perfection. Added to this is hand embroidery on the tip of the front point and at the back of the garment and long black fringe along the bottom edge.

The garment is faced and lined. Closure is an invisible zipper. There is rayon fringe attached to the lower edge which softens the hard diagonal hem.

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CAMO GEAR

Alyson Hancey and Catherine Burnham
Brigham Young Univ., Provo, UT 84602

Elite Force is a line of men's outdoor ski wear designed for the athlete who wants to make more than an athletic impression. Each outfit took inspiration from the military officer. Camo Gear was inspired by the black and white winter fatigues. I wanted the look of fatigues with a little more style and innovation. The black in the coat and pants and the white in the jacket are Ultrex water resistant and insulative high tech fabric. It has a soft face and a water resistant rubbery back. The gray in the coat is water resistant nylon pack cloth. The camouflage fabric is a cotton/polyester quilted with Warm and Wooly batting, an all natural batting. This area of the coat is well insulated for warmth. The pant camo cargo pockets are unquilted. The lining in pant and jacket is 100% rayon. The fleece in the top is polyester. The jacket has a drawstring waist for tightening to prevent snow from rising. The sleeve cuffs are half elastic with webbing to wrap around the wrist and velcro shut to the desired tightness. The jacket also has a snow skirt which velcros underneath at center front. The snow skirt has an elastic hem which keeps it close to the body. There are three pockets in the jacket, two on the front below the drawstring. Both pockets have zipper flaps. The third pocket is a net pocket on the upper left chest. Attached to the pocket is a D ring for attaching keys. There is a zipper at center front with a snapping zipper cover.

The elastic waist pants have 14" zippers at the bottom of each outseam so the wearer can easily get the pants on and off over boots. There is a reinforcement patch on the bottom inside leg for increased durability. The pants are fully lined with four cargo pockets for lots of storage. The fleece top has an elastic band at the cuff and a zipper at center front. This top is waist length, with a patch pocket on the left.

Camo Gear was designed so that the wearer could not only have the look of a stylish officer but would also have an effective, useful garment that will be functional in athletic endeavors... skiing, snowmobiling, or snowboarding.

CIRCULATORY SYSTEM

Michael Magnan and Jean L. Parsons
Marymount Univ., Arlington, VA 22207

Design Statement: The inspiration for this ensemble came from the theme for the 1997 Air France competition: travel. Intrigued by the idea that travel could be interpreted in a variety of ways, my design uses the concept of the human circulation system as blood travels through the body. Combinations of color and texture are used to balance the branching red lines that move up the front of the jacket, down the arm and across the hood.

Description: This three-piece ensemble consists of a jacket, short skirt, and pants. A variety of fabrics and techniques were incorporated into the design to achieve the desired effect. The lined jacket is made of pale yellow silk noil and has one matching sleeve and one contrasting sleeve. It zips up the front and has an attached hood. The contrasting sleeve is constructed from the wrong side of a tapestry fabric to make use of the fringed yarn floats. A short, wrap skirt of the same fabric extends below the jacket. The straight-leg trousers are color blocked to incorporate the colors of the top and anchored with black nylon on the bottom, a yellow band at the knee, and red silk shantung on top. A red pattern to simulate the circulatory system is painted on the silk jacket, moving from the hem up the center front and down the matching sleeve. The painting continues onto the back of the hood.

COSMIC VISIONS

Dawn Overton
University of Delaware, Newark, DE 19716

Thoughts of the high-tech future and visions of space inspired this two-piece evening set. The structured shape along with curving, flared neckline and hems gives it the look of something that is out of this world. The structure is maintained with multiple pieces of vertically placed metal boning bent and shaped to achieve the desired look. An asymmetrical neckline with a single armhole draws the eye over the shoulder to a slightly raised back neckline. The flared bodice hem tilts in the opposite direction and lowers in the back. The long, very fitted skirt continues the staggered horizontal line with its tilted hem.

Draping methods were used for the initial design, which was then manipulated by flat
pattern techniques. The shell is constructed of white acetate satin with an overlay of iridescent organza and is self-lined over two layers of cotton broadcloth and two layers of fusible medium weight interfacing.

DANCING TILL MIDNIGHT

Grace Krenzer
Oklahoma State Univ., Stillwater, OK 74074

The senior prom is a once in a lifetime experience and wearing the perfect dress makes the occasion even more special. Purple iridescent georgette and purple, black, and gold metallic burnout velvet were used to create this elegant evening dress designed for a special young lady.

A flowing full skirt and high neckline were two features requested by the wearer. The neckline band was inspired by a designer dress that had a front scooped neckline and low V-neck band. Draping techniques were used to develop the pattern. Burnout velvet was used to create a similar high neckline band and the sheer geometric insets on the bodice. The full skirt

of the princess dress, made of purple georgette and lined with black crepe, changes shades during movement.

Many construction challenges needed to be addressed because sheer fabric pieces had to be attached to the lining at one point yet allowed to the free and flowing in other areas. Serged rolled hems were used for some seams as well as the hem.

DETAILS

Jean L. Parsons
Marymount University, Arlington, VA 22207

Design Statement: The inspirations for this suit were twofold: an affinity for fitted, tailored silhouettes of the past and for custom tailoring details such as bound buttonholes and welt pockets. The jacket design was developed to create balance and rhythm through use of decorative and functional details and repetition in the angled shapes that define both inner and outer edges of the jacket. Two solid color fabrics allow emphasis to be on the repeating elements of design.

Description: This outfit consists of two pieces, a lined jacket and lined trousers. The main body of the suit is of dark gray wool crepe, while the buttonholes, welt pocket, and undercollar are of mustard color worsted wool. Contemporary tailoring methods that combine use of knit and tri-dimensional fusible interfacings and machine stitching shape the jacket. The jacket front is cut with princess seams that end in angled, inset pockets, and a single, curved welt pocket accents the lower right edge. The asymmetrical front angles from the shoulder to just below the bust and then curves back to end in a point at the hem. Contrasting bound buttonholes and self-fabric covered buttons emphasize the curve of the front closure. The neck edge has wide lapels and a separate stand collar that can be worn open or draped to one side. An irregular hem and side vents emphasize the slightly flared hem edge. Matching trousers are narrow and simple, designed to add visual length without detracting from the details of the jacket.
Inspiration for El Duomo came from three sources: the architecture of the Santa Maria del Fiore Cathedral (the Duomo) in Florence, Italy, the work of Mariano Fortuny, and the fabric itself. During a 1997 visit to Florence, I was awed by the architecture of this magnificent green and white marble cathedral and was immediately inspired to use a previously purchased green and ivory striped silk batiste to reflect my fascination with the cathedral.

The dress silhouette is a basic tunic inspired by Fortuny's Delphos gown; the pleated dress is suspended from the shoulders by cording laced through hand-sewn eyelets. Smocking embroidery stitches form the points and curves embroidered on the bodice in a design which, combined with the striped fabric, reflects the architectural influence of the cathedral. Internal backsmocking provides the structure that keeps the pleats intact. Construction techniques utilized include French seams, hand-sewn eyelets, bias neckline and armhole facings, and a rolled hem.

Challenges faced creating this garment included (1) maintaining the pleated structure in the fabric, (2) manipulating the fabric to pleat 9" wide sections at a time (the width of a smocking pleater), (3) developing the embroidery design plan to incorporate architectural elements inspired by the cathedral, and (4) controlling the garment fit based on the stretch inherent in smocking, rather than through traditional fitting devices such as darts.

I designed this dress because I wanted to evoke an idea of elegance that is not entirely dependent upon revealing the woman's body and thus resists stereotypes surrounding evening gowns. This is one dress in a line of evening wear meant to conjure visions of elegance.

The dress can be worn in different ways; for example, the dress can be worn with or without the white organza skirt, or the skirt can be worn as a cape. I gave the design detachable parts to maximize the number of styles the dress can produce as well as to add variety, comfort, and practicality.

The pattern was drafted using flat methods, using adjustments for the knit black velour.

An invisible zipper and covered buttons in the center back provide the dress with closures. The lines circling the silk organza skirt were made by sewing on repeating rows of a narrow black polyester ribbon.

Elite Force is a line of men's ski wear designed to make more than an athletic impression. Geo Reflections was inspired by the silver bars of Air Force officers, using the Air Force uniform colors as well as its bold straight geometric lines.

The black in pants and jacket is a water resistant, breathable nylon packcloth with a dull face. The gray zipper cover is also packcloth. The blue in the jacket and pants is high insulation three-ply Gortex with a soft feel. The silver stripes and geometric shapes are made with reflective tape and outlined with blue grosgrain ribbon. The lining in both pants and jacket is 100% nylon. The fleece is polyester.

The jacket has a drawstring waist for tightening to prevent snow from rising. The sleeve cuffs are half elastic with webbing bands that wrap around the wrist, allowing fit adjustments. The jacket has a snow skirt with an elastic band at the hem. This jacket has three zippers on the front—one at center front and one on either side. The jacket actually opens
down the left side. The center front and right side zippers only open one third of the way down for ventilation adjustments. There is a zipper cover, also. Two pockets with zipper flaps are at the bottom center front.

The pants have 14" zippers at the bottom of the outseams so the wearer can get the pants on and off over his boots. There is also a reinforcement patch on the bottom inside leg for increased durability. The elastic waist pants are fully lined. There is a seat reinforcement, too, in case the wearer falls. There is a zipper pocket on the back right of the pant. The fleece top has an elastic band at the end of the sleeve. There is a zipper down the top third of center front. At the top of the zipper is a snap closure. This top hangs about 8" below the waist.

"Geo Reflections" was designed so that the wearer could not only have the look of a stylish officer but also have an effective, useful garment functional in athletic endeavors. skiing, snowmobiling, or snow boarding.

GEOMETRIC BIAS

Jessica Madsen-Strachan and Nancy Bryant
Oregon State Univ., Corvallis, OR 97331

This dress is cut on the bias, inspired by the body conscience gowns of the 1930s. Asymmetrical seam lines overlap in the front and back skirt, serving also to shape the fabric to the body. The front edges terminate in darts to fit the bustline. The skirt hemline follows the fabric grain, creating a handkerchief hemline.

The dress has 3/4 length sleeves with knotted fabric tubing trimming the sleeve lower edges and neckline. No fasteners are used; the dress slips on. The fabric is a textured navy/purple bleached rayon. The dress was created by the draping process.

HANEL

Hyun Sook Watkins and Catherine Burnham
Brigham Young Univ., Provo, UT 84602

This outfit was inspired by the desire to translate the beauty of the traditional Korean costume into modern terms. The design itself went through several transformations before arriving at its present interpretation. I used colors customary to both traditional Korean dress and contemporary Korean arts.

The red and green are traditional wedding and ceremonial colors used by the higher economic classes. They also are used to dress children on their first birthday. The red wrap is a modern interpretation on the traditional Korean wrap needed to cover the face in public. The color red is a color for young women to wear.

The patterns were constructed using flat methods. I used Korean pattern making methods for the vest pattern. It has no shaping to the body. The front of the pants shapes are not symmetrical. The sheer side panels were added to add textural interest. Both the hem of the pants and top were trimmed with velvet. The green georgette sleeves were pleated by hand. A horsehair hem helps to maintain the shape in the legs and inside the purple trim. All the trim is bias and hand sewn. Covered velvet buttons are used to close the vest.

The green bridal satin is polyester, the green georgette is polyester, and the purple in the pants is an acetate damask.

LACES AND SPACES

Leanne Gould, Central Washington Univ.
Ellensburg, WA 98926

Laces and Spaces was designed as an experiment with asymmetry and positive and negative space. The dartless top with cap sleeves was drafted with an open middle section that wraps diagonally from the front to the back. Twenty-four grommets were placed evenly along the negative space allowing the
laces to slide through and hold the garment together.

The laces also serve as a decoration and were repeated at the side vents of the pants. The pants fall below the knee and sit low on the hips so they avoid showing through the bare midsection.

Colors were hand-dyed and chosen based on the art of Mark Rothko. The dying process was repeated to create a painterly and distressed, almost leather-like appearance.

**MY DAD'S NECK TIES**

Shu-Hwa Lin, North Carolina Central Univ., Durham NC 27707

The purpose of this project was to demonstrate a design process using recycled fabric. A box of men's neck ties belonging to Dr. Taylor's father was used to create a sleeveless, full-length dress in memory of her father.

My goal was to use fitting techniques that incorporated draping and neck tie-shaped applications in one of a series of contemporary design fashion of reused materials. The ties had been purchased in different places and times. Therefore, varieties in color, texture, length, width, and shapes made a challenge. The design was created by using 34 different ties in assorted colors, plain and satin weaves, and polyester and silk fabrics.

Twenty-nine of the neck ties were arranged and assembled together to form the bodice. Four additional ties were inserted to provide room for the hip measurement. One black neck tie was selected and cut into two appropriate length for the shoulders. Hand stitches were used to complete the garment and a center back zipper was installed to the fitted bodice. Zigzag waves were created for the neckline and hem. A hook and eye was sewn at the top of the zipper. The skirt construction consists of 31 panels of the wide side of the ties with slips.

**OUTBACK ADVENTURE**

Tavia Sharp and Jo Kallal
Univ. of Delaware, Newark, DE 19716

The earth's natural pigments and textures inspired this ensemble. I used colors that represent the sand, soil, rock, and clay with their unique hues of brown and red. The designs are based on the asymmetrical shapes found in the Australian outback.

The objective was to design multiple pieces for a very wealthy, high profile woman who travels to exotic places for business and social events and needs a flexible wardrobe with easy care. For my collection she is traveling to Australia in the spring.

I used both draping and flat pattern techniques for all the pieces and they are fitted for a standardized dress form. All the designs display angular lines and details. The lined jacket is made of rust 100% raw silk. It features diagonal and horizontal style lines on the front, back, and sleeves. It also includes a shawl collar, 3/4 length sleeves, and fabric loops and buttons for the front closure. The side-zipped pants are made of tan viscose/acetate/cotton poplin. I used rust simulated
suede piping to emphasize the angled style lines on the front and back. Both the jacket and pants are lined with a camel-colored 100% polyester posh. The sleeveless knit top is 100% acrylic with a zigzag print in muted colors of brown, red, orange, and yellow. It features an asymmetrical front neckline and diagonal style seams.

PLAY ON TEXTURES

Jesse Khong and L. Susan Stark
San Francisco State University
San Francisco, CA 94941

The designer's purpose for this garment was to create texture in a fabric (suede) and to then combine textures without overwhelming the viewer. The textures used are velvet, hand cut suede, and hand stitched trimming/seams.

The source of inspiration came from the European slashings of 15th and 16th century textiles. These slashings added texture to the fabrics. In the garment presented, planned rows of "V" shaped hand cut slashings add texture to the gray suede jacket. In addition, hand sewn cross stitches (done with 1/4 inch tape) give emphasis to the seamlines and edges. The jacket has no machine stitches.

The bottom edge was cut asymmetrically to give a very spontaneous, natural look. The simple, full length, form fitting polyester velvet dress underneath has texture which contrasts to the suede in weight and supple hand, yet compliments and showcases the intricate suede jacket. It is finished with a rolled hem at the sleeve and hem edge and lettuce edge at the neckline. The garment is a black textured velvet dress with short sleeves and a cowl neckline. The jacket is a suede textured asymmetrical garment with bone button.

RED PHOENIX

Adele Zhang
University of California, Davis, CA 95616

This dress is designed for an evening party or for some special occasion. First I selected the red color because it is the most conspicuous color. It grabs the viewer's eyes to pay attention to the wearer, an important factor to the success of a showy dress.

In relationship to current fashion trends, I used transparent chiffon fabric which is currently in vogue. I chose the smooth transparent fabric to combined with a self-made cloque fabric to achieve a contrast surface result which is richer and more interesting. This cloque process involves stitched double layers of fabric treated with lye to create the puckered texture.

Considering this as an evening dress based on the traditional Chinese Qipao's silhouette, I developed it into a more dramatic look. When decorated by metallic thread handstitching on the opaque part of the dress, the design looks more elegant and graceful. The whole piece is the combination of modern and traditional, western and eastern, opaque and transparent.

"RINGS OF PASSIONS"

Marilyn M. Mitchell
University of Delaware, Newark, DE 19711

The "Rings of Passions" coat was inspired by the experience of two exhibitions. "Gianni Versace," at the Costume Institute, Metropolitan Museum of Art, 1997 enthralled the designer with his understanding and joy in fabric manipulation as well as his incorporation of artistic themes in a garment design. "RINGS, Five Passions in World Art" was an exhibit conceived by J. Carter Brown, organized by the High Museum of Art, and produced by the Atlanta Committee for the Olympic Games, 1996. Its theme is stated in
the appliqué on the collar/scarf of the garment. Five rings of color representing the emotions of Love, Anguish, Awe, Triumph, and Joy appear as separate rings in the collar portion, then interweave in the scarf section. The design expresses the interconnectedness of human passions, not only within one life but throughout human creative experience existing in all worlds, past and present ... an eternal continuity.

The silhouette repeats the theme defined in the collar/scarf. Developed through draping, the circular shape is controlled by two equal volume folds in each quarter of the coat and a center back box pleat. It was cut on the lengthwise grain. The sleeves were also draped, and are cut on the bias. The garment is an above-the-knee swing coat.

The colors chosen are those of the Olympic rings. The body of the coat is blue with appliquéd bias strips of blue, red, green, yellow, and black in the collar/scarf. The fabrics are wool. The lining is red polyester.

RIBBON OF AWARENESS, AIDS

LaDawn Simpson, Diane Morton, and Cathy Starr
Oklahoma State Univ., Stillwater, OK 74078

The utilization of a ribbon is one way to show visible, yet silent support for many different causes. Over the past several years, a loop of red ribbon has become the way to show support for those suffering with AIDS and HIV.

Often celebrities wear ribbons showing their support for various causes when they attend high profile events such as award ceremonies. In addition to competing for the awards that are being given, it often appears that there is a competition in the area of dress when celebrities attend these ceremonies. It is the combination of using the ribbon to support a cause and the appearance of a competition to attract attention through dress that inspired this design. One cannot watch an awards ceremony on television without seeing that numerous red ribbons are attached to numerous lapels. Thus, the use of an entire dress as a symbol for those afflicted with AIDS seems appropriate.

SANDSTONE

Heather Huffaker and Catherine Burnham
Brigham Young Univ., Provo, UT 84602

I believe beauty lies in the simple things of life. This line of clothing emphasizes the beauty of simplicity in classy lines and layering. Marketability is important to me, too, and I design clothes I would want to wear, clothes that are simple, classy urban pieces. I also feel that white shirts are essential in every wardrobe. I love how classy and clean they look as well as their versatility.

This outfit predominantly consists of stretch fabrics for comfort and all of the fabrics are machine washable. Materials include a lycra/cotton blend and 100% cotton for the T-shirts, loosely woven polyester for the button-down shirts, and sueded polyester/Lycra spandex for the pants, skirt, and jackets. Each fabric offers a unique texture, especially the sueded polyester which has a satiny back of the fabric and a sueded face. This provided a difficult decision on which side to use for the face in the designs, since both are appealing. I, however, chose to put the satiny side next to the skin so less friction is created. The fabric feels nice to wear as well as to touch on the outer surface.

The patterns for this outfit were made by the flat method.

The brown jacket has a two-piece semi-mounted kimono sleeve that is cut-in-one with the jacket yoke. The striped T-shirt has fully faced slits in the sleeves and matched stripes on the side seams for consistency and quality, which proved challenging as well as more time consuming. The white button front shirt has not quite full length sleeves that were inspired by my favorite flower, the calla lily. The skirt
has slits on both sides to facilitate movement and accentuate the legs.

**SILVER WILLOW**

Diane Sparks, Stuart Sargent, Julie German-Melka and Sue Kruek-Froseth Colorado State Univ., Fort Collins, CO 80523

Simple camisole long evening dress, with Chinese friendship knot on the shoulder strap is worn with a mid-calf coat with asymmetrical front closure and side slits to approximately the hip line. The coat has a willow leaf ornament at center-back neckline and Chinese braided ball button and loop front closures. The silk velvet fabric was hand-dyed.

**SNOW QUEEN**

Liliana Robles, Marymount University, Arlington, Va. 22207
Janice McCoart, Marymount University, Arlington, Va. 22207

Snow Queen's design was the ultimate result of a design-thinking assignment in half-scale which required the complete masking of the female anatomical silhouette. An examination of white mini-pleated fabric showed that it had the nature of bouncing back into its original shape. That concept and a study of Issey Miyake’s designs inspired a multi-tiered evening dress.

Since a large amount of fabric was necessary to execute the design in full scale, it was made in two parts: a blouse, which was draped and sewed by hand over a basic shirt foundation, and skirt, with an under layer of seven rings of boning to support it. Construction involved measuring the fabric, distributing it evenly, gathering it with loose

**SEX**

Chris Carter and Kathy K. Mullet
Radford University, Radford, VA 24142

This garment was inspired by the video *Industrial Symphony No. 1* by David Lynch and Angelo Badalamenti. In this video the dancers/actresses give mixed signals of sex and relationships. This dress portrays the idea that garments are often meant to attract the opposite sex and that there is no need to hide that fact. Therefore when a women wants to wear a sexy dress, just wear the "Sex Dress."

The garment was made using flat pattern techniques and the lace letters were appliqued over the basic black lace. The neck and armholes were bound with bias binding to finish the edges.
seven rings of boning to support it. Construction involved measuring the fabric, distributing it evenly, gathering it with loose stitches and draping it in place. A crown of silver leaves, the texture of which suggests icicles, accessorizes the garment.

SPARKIE COCKTAIL SUIT

Diane Sparks
Colorado State Univ., Fort Collins, CO 80523

Playful, soft cocktail suit comprised of a short cardigan jacket with asymmetrical front closure and palazzo pants with circular fireworks surface design on the lower part of each pant leg. Silk velvet and silk devore velvet fabrics were hand-dyed to match the Silver Willow ensemble. This suit can be worn with the Silver Willow coat.

SUNSET

KyeongSook Cho, Janice Huck,
Gita N. Ramaswamy
Kansas State Univ., Manhattan, KS 66506

The design inspiration for the dress titled "Sunset," came from the sunset over the endless plains and hills. The beautiful sunset over the plains reminded the designer of the richness and the infinite potential that Mother Nature holds. The orange bodice made of an experimental fabric, kenaf/cotton, represents the sunset and the layered skirt of organza and tulle in natural colors is a reflection of the richness of nature. In addition, the frilled hemline echoes the rolling hills. The orange boat-like hat depicts the acceptance towards the richness and the possibilities that nature extends to humankind. The orange color was created by using a natural dye, turmeric. Plastic wires and paper tape created the frilled hemline. Gold beads and leaves like spangles adorn the hem and neckline.
THE IMPERIAL TRAIN

Veronica Madalina Romanoschi
Louisiana State Univ. Baton Rouge, LA 70803

The dress is a floor-length fitted column with a slightly lowered V-shaped waistline. Its symmetry is interrupted by a large diagonal bow detail. The ends of the bow radiate from the left front waistline seam, over the hip and beyond the plane of the body. A combination of four fabrics are used in the design: a solid bronze iridescent taffeta for the bodice; bronze iridescent taffeta flocked with an oriental-style velvet motif for the skirt, bow, and train; black georgette for the bodice; and solid black taffeta for lining. The solid surface of the bronze taffeta bodice is enriched by hand tacking the georgette to form a crinkled 3-dimensional overlay.

WOVEN SILVER

Michelle Brick
Univ. of Minnesota, St. Paul, MN 55108

The challenge of this design was to integrate fabric of similar texture but different value. It was created to be evening wear for a modern woman who wants to stand out in a crowd. The dress also explored innovative ways of creating patterns and figures in the dress through a weaving technique used on the bodice. The inspiration for this dress came from the turn of the century designer, Erte. I focused on his unusual use of fabric to create design details and figure ground relationships. Light and dark silver satin was used for the bodice, and tubes of the same satin were woven to integrate the values. Forty-two light and dark organza gores create the light, fluid look of the magnificent skirt. The panels were integrated to appear as if the bodice flows into the skirt.

THE LITTLE MERMAID

Amber Fairbrother, Central Washington Univ.
Ellensburg, WA 98926

This dress brings to mind mysteries of hidden sea life. The design is simple, yet the result is elegant.

The full length satin skirt is a muted green, with just a hint of gray. It is softly gathered on to a lined, darted bodice with a modestly scooped neckline and spaghetti straps. Covering the bodice are 46 shining silk scales overlapping one another. The scales are a crinkled metallic silver, each with a green satin bias binding. An invisible zipper hides under the scales on the left side.

The green and silver of the fabrics complement one another, both shimmering like waves in the
moonlight. This dress brings the sea to wherever it is, and whoever wears it becomes a mermaid.

VELVET TAILS

Claudia Echols
Oregon State Univ., Corvallis, OR 97331

The time period between the late 1920’s and the 1930’s was the inspiration for this evening gown. The challenge was to combine unusual design details with a silhouette that reflects the fitted, basis contoured gowns of the 20’s and 30’s.

The strapless bodice of this gown is fitted with the use of princess seams and extends below the hips. The gathered and flared skirt is attached to the bodice but is concealed by an interlocking, twisted, bias piece of fabric that is secured in the side seams. A pleated peplum is seamed into the bodice above the hipline and cascades into tails at the back, resembling men’s suit tails. The original draped design is completed in a printed black/red velvet and black satin fabric that was used extensively during the 30’s. The neckline is finished with a contoured, fitted band that is embellished in black floral motifs of satin cord, sequins, and beads.

WIND SURFING SAILS

Carolyn Schactler, Central Washington University, Ellensburg, WA 98926

This project required an understanding of three-dimensional design. The challenge was to match the color pattern from one leg to the other, adjusting for the three-dimensional body inside the garment, from left leg to right leg and from right arm to right side of the bodice. The inspiration for this design came from the fantastic, colorful patterns on the sails of the sail boards. Because of the asymmetrical design, all pieces (except lining) required individual cutting. Including the pockets, there were 52 pattern pieces in all.

The wide leg shape reflects the shape of the sails, and the brass grommets used as decoration on the right jacket opening and left thigh resemble the ones used in sail riggings. This geometric pattern of bold green, blue, and yellow generated 11 inside-to-outside corners (a construction feat!) A straight-edged collar follows the sporty lines of the rest of the design.

BABY CHICK

Eiko Machida and Donna Branson
Oklahoma State Univ., Stillwater, OK 74078

While reviewing my collection of clippings and photographs, I realized that many of the pictures featured very unique fabrics. I became intrigued with the notion of creating a decorative textile to use as the basis for my design. A baby chick inspired this design. Since I wanted the skirt fabric to be the focal point, other parts of the garment are very simple.
To create the overskirt fabric, I sewed five panels of chiffon together with French seams. Then I drew 5” circles, 1” apart over the entire fabric surface. I sewed along each circle with the longest stitch setting to make it easier to gather each circle to form a 3-dimensional puff.

The dress features a scooped neckline, princess seaming, straight underskirt and chiffon fluffy overskirt attached under the bustline. The dress fabric is yellow silk. Wire is used between the two skirts to provide shaping for the dramatic, 3-dimensional overskirt. Draping and flat-pattern were used to create the pattern.

CABLES AND CORSET

Pamela Bailey
Univ. of Alberta, Edmonton, Alberta, Canada T5B1T1

The future of fashion is a dream-like state, drifting... where reality and fantasy collide. Creativity is the expression of the dream, intuitive in nature... preverbal forms illustrated by convoluted, multi-leveled symbolism. The dream's metamorphosis opens its eye to the dawning of a psychedelic reality. Intense color, surreal forms and exaggerated expression fuse nostalgia with cutting edge. Fashion's evolution is a living paradox. The cycle is continual... fantasy and reality merge to expose fleeting glimpses of what will come only to become what has already occurred.

CELTIC CORDING

Nicole Wahl
University of Alberta
Edmonton, Alberta, Canada

Celtic Cording was inspired by the intricate knotwork illustrated in stone carvings
and artwork of the medieval English and Scottish culture. The Celtic Knots were recreated using the embellishment technique of cording; a subset of the Italian Trapunto technique. The cording is accomplished by feeding yarn through parallel lines of stitching, exiting and entering to accommodate the overlapping knotwork. The result is a very subtle but intriguing 3-dimensional design.

CITRON

Vincent Quevedo
Univ. of Nebraska, Lincoln, NE 68583

"Citron" was the result of studying the clothing designs of Charles Kleibacker and Robert Hillestad. Charles Kleibacker is a renowned fashion designer who established his business with specialization in bias dresses. Robert Hillestad is a renowned "Wearable Artist" with a specialization in fibers and colors.

Techniques used to construct this design included bias draping techniques inspired by Charles Kleibacker and the fiber arts coloration of Robert Hillestad. Rayon knit fabric was used to drape the dress pattern and strands. The bias techniques in draping was translated to knit fabric for ease in sewing with the serger. The strand’s edges were finished with a rolled hem and was stretched in the process of sewing. Stretching the fabric enabled the stiffness of the thread to create a more stable edge creating a "lettuce leaf" effect. The fabric was dyed prior to cutting the pattern. The gradation effect softened the design and created a "natural" look to the overall appearance. Fabric used to create this outfit consisted of a rayon knit.

MADEMOISELLE JOSEPHINE

Eulanda A. Sanders and Diane Sparks
Colorado State Univ., Fort Collins, CO 80523

The objective of this project was to create a comfortable special occasion ensemble inspired by 1920’s entertainer Josephine Baker. The research process involved an ideation process on generating a variety of silhouettes and the placement of Josephine Baker's face on the garment.

The raglan sleeved dress was hand-knitted with size 6 needles from a 50% cotton/50% rayon yarn in white and black. Josephine Baker's face was knitted into the dress using intarsia techniques, in the stock-inette stitch, and details such as eye-lashes were couched onto the dress. The neckline of the dress was hand-crocheted with the single crochet stitch and the hemline of the dress and the sleeves were finished with a 2 x 2 ribbing. The production grids for the dress were created using Animator Pro, a computer-aided design software, which allowed the pattern to be created, modified, and printed in color.

LEAFSCAPE II

Sherry J. Haar
Kansas State Univ., Manhattan, KS 66506

Inspired by the fall season in the Blue Ridge Mountains, Leafscape II echoes the colors and shapes of leaves. The inner design lines were curved to resemble leaf edges. The
fabrics were hand dyed to capture the vibrant glow of color. The hand-dyed cotton fabrics were cut out using actual leaves as templates, ranging in size from 1/4” to 4”. The fabric leaves were attached to the surface by thread painting. The hand-dyed silk scarf also follows the leaf theme by machine stitching the shape of leaves on the scarf’s surface.

Ten original drawings and paintings were phototransferred onto a neutral polyester cotton fabric, while pieces of 100 percent cotton were individually hand-dyed to complement the artwork. Nine of the ten phototransferred pieces were stitched together to create the skirt’s focus while the dyed pieces became the border and waistband of the skirt. Varying shades of blue-green frame a final painting on the back of the top.

PAPER-TWIST DRESS

Katherine S. Noyes
Iowa State University, Ames, IA 50010

This dress was completed for an Experimental Design class during my senior year at Iowa State University. The assignment was to create a form of wearable art using paper as the primary medium.

I actually had this dress in mind when I started this class in the fall of 1997. I worked at a fabric and craft store and immediately thought of using the paper-twist ribbon commonly used in crafter’s wreathes and bows for my dress. I thought that it would be perfect to un-twist and then weave together to create both the front and back pieces of the garment. I wanted to create a stunning piece to excite the audience’s visual and tactile senses.

This dress features a deep neckline in front and a sexy low back and knotted ribbon detail at the center of the model’s back. Ribbons supported by floral wire seem to “grow” out of the wearer’s shoulders like vines. The sides of the dress were easily finished by form-fitting the front and back pieces and removing some of the weaving. The corresponding front and back sections were then knotted together to create the “side seam.” Although the ribbon was very durable and easy to work with, it was also very time-consuming.
to un-twist every piece that went into both the warp and the weft.

PLATED

Sara Mielke
Univ. of Minnesota, St. Paul, MN 55108

The driving force behind this design is the idea that no man's wardrobe is really complete without a corset riveted with metal plates. The piece gives the appearance of a mechanized object that encloses the body. The buckram corset is embellished with silver paint and small metal parts including springs, nails, nuts, and plates to spice it up. The strips are riveted together and hooked with S-hooks through back grommets. Fitted nylon pants and polyester knit shirt provide the techno base for the plated corset in this exploration of the "unintended."

PURPLE PALETTE III

Catherine Black
Florida State Univ., Tallahassee, FL 32306

Purpose: The goal of this project was to create a fun, wearable art coat combining various surface design techniques.

Inspiration: A palette of purple and gold flowers served as the inspiration.

Description: Knee length coat and dress ensemble.

Techniques: The coat pattern was developed using flat pattern and draping techniques. After the muslin was constructed, the coat was critiqued, and modifications were made to the design. The "cut and slash" side front and back areas of the coat were created by layering six fabrics, stitching 3/8' apart, and slashing between the rows of stitching. The fabric was washed numerous times to produce the chenille effect. Seminole patchwork was used to create the center front and back panels. The purple printed areas of the collar, sleeves, and lining were machine quilted to complete an overall textural effect. To complete the ensemble I designed a fitted dress accented with seminole patchwork yoke.

Fiber content: The jacket is constructed of 100% cotton, insulated with thermore batting, and lined with 100% cotton. The dress is also 100% cotton.

REMORSE

Vincent Quevedo
Univ. of Nebraska, Lincoln, NE 68583

"Remorse" is one of three garment designs from the "Flow Dress" collection designed to celebrate the traditional art of fashion draping and "Art to Wear."

"Remorse" was the result of studying the clothing designs of Charles Kleibacker and Robert Hillestad. Charles Kleibacker is a
renowned fashion designer who established his business with a specialization in bias dresses. Robert Hillestad is a renowned "Wearable Artist" with a specialization in fibers and colors.

Techniques used to construct this design included bias draping techniques inspired by Charles Kleibacker and the fiber arts coloration of Robert Hillestad. Rayon knit fabric was used to drape the dress pattern and strands. The bias techniques in draping were translated to knit fabric for ease in sewing with the serger. The strand's edges were finished with a rolled hem and was stretched in the process of sewing. Stretching the fabric enabled the stiffness of the thread to create a more stable edge creating a "lettuce leaf" effect. The gradation of the fabric dye effect softened the design and created a "natural" look to the overall appearance. Fabric used to create this outfit consisted of nylon knit and acrylic yarn.

SPICE COLLAGE

Rita Chuk-Petroskoas
Univ. of Minnesota, St. Paul, MN 55108

The challenge in this design was to create a more formal and wearable ensemble using a created hand-tied strip fabric. The hand-dyed knit base was created by hand cutting and tying yards of ribbon-like luxury fabrics. The strips are randomly sized in width and length and placed to integrate texture, light, and color. The inspiration originated from the created fabric inspired by texture, color, and movement integration. The ensemble consists of a patch-printed velveteen coat lined in chocolate brown and trimmed with the hand-tied strips. The silhouette of the coat has a fuller drape inspired by medieval dress. The coordinating empire style dress is made from a diamond-patterned upholstery fabric which served as an alternative to traditional formal fabric.

ROSE GARDEN

Nicole Wahl
University of Alberta
Edmonton, Alberta, Canada

Rose Garden was the product of a challenge to design a garment emulating the Art Nouvea era, using gutta resist and Procion H-Series dyes to create the surface design on 100% silk fabric. The artwork of Charles Rennie Mackintosh served as the main design inspiration, drawing upon his use of stylized flowers, layering techniques and his use of single figures of women. The actual garment design was inspired by a Syrian dress with its long, flowing nature and the applicability of the textile design interpretation.

STAINED GLASS ELEGANCE

Carolyn Schactler, Central Washington University, Ellensburg, WA 98926

My goal was to create a gown that depicts the color and artistry of stained glass windows. The design is a full length, two-piece ensemble: a simple sleeveless, V-neck sheath with a partially open back and an overgarment having an upper chest, back, and sleeves, all of which support the two stained "glass windows" that hang in two long panes from the upper back to the floor. A row of the "glass" sections adorns the front of the jewel neckline also. The basic black fabric is satin.
All fabrics chosen for the sections of "glass" were of a light reflective fabric, 85 pieces in 33 different colors. The "leading" was created from 18 1/2 yards of a black soutash braid, sewn by hand on each edge. The outer part of the garment is fully lined with an emerald green texture satin.

**TANNUS**

Theresa Winge
Univ. of Minnesota, St. Paul, MN 55108

This design represents the Indy "tribal" subculture inspired by the contemporary urban subculture movements and urban surroundings, along with past tribal cultures such as the ancient Celts. Indy clubwear is a representation of the delicate balance existing within the urban environment. Tannus is the Gaelic term for the Celts' Fire God, and is represented in this design. The long sleeve top is constructed from distressed black cotton chenille and polyester micro-mesh. The oversized drawstring shorts are constructed from an amber, black, and red cotton plaid with a distressed black cotton chenille loincloth.

**THE SPACE LIVING BODY**

Kyoung-Hee Cho
Mokpo National Univ., South Korea

Concept and Inspiration: This work is from a series of designs from "Future & Space Look." With an emphasis on the future, a symbolic expression of unity, liveliness and harmony of the space and humanity were explored to create a wearable garment. It was inspired by the heavenly bodies that preserve a big space order, wandering alive with various shapes in space. The curved line of the trim symbolizes the atmospheric circular line linking space and earth.

Research Process: "The Mystery of Space" film from television was a good inspiration. Silver was used for focusing on the "Space Look" and its trims were for the stream of space.

Techniques: A black 50% silk/50% polyester satin was used for a basic full flared dress. The technical point was that the long crescent shapes of each pattern pieces were going from the front through to the back, which means there were no side seams. It has only one straight cut line for the back zipper. The silver bands were trimmed together on the curved seamlines in the dress by hand. The various curved lines of rosettes and hat were created for the stream of the heavenly bodies, and the acrylic cabochons were for their soul.
"Vex" is a continuation of the "New Millennium" collection designed to celebrate the future. Microscopic views of organic matter were used for spacing, coloration, and design. "Vex" was the result of studying the clothing designs of Kyoung Hee Cho. This renowned designer specializes in "Art to Wear" with an emphasis in space and the correlation it has with the human body. The Visiting Professor position was an opportunity for this international designer to educate other professionals, the public, and artists to the importance of "Wearable Arts."

"Wired" was the result of studying the clothing designs of Kyoung Hee Cho. This renowned designer specializes in "Art to Wear" with an emphasis in space and the correlation it has with the human body. The Visiting Professor position was an opportunity for this international designer to educate other professionals, the public, and artists to the importance of "Wearable Arts."

The challenge of this piece was to create a garment that had its own dimension and would keep its shape with or without a body in it. The ideas developed from experimentation with wire, how it behaves and takes shape. The circular skirt is constructed of a heavy nylon fabric with vertical casings to hold the wires. A wire casing was also created at the hem of the skirt. The skirt is lined in silver and its silhouette can be altered at the wearer's discretion. The silver painted buckram bodice displays a collection of nuts, nails, rivets and metal mesh and is closed with S-hooks. The piece explores the use of the unintended in garment design.

The purpose of this dress was to show how recycled materials could be used for a fashion-oriented project. With the state of the world's ecological problems, recycling should be considered as an important source for clothing as well as for other daily used items.

The inspiration for the dress came from a stack of old, Women's Wear Daily magazines and the concept of recycling trigger poplin, paper clips and the magazines.

The dress is made with black trigger poplin with torn pictures adhered to the surface with a "modge-podge" adhesive. Silver rivets hold paper clip straps in place attached to both the front and back of the dress. The adhesive covering gives the garment a leather look. The dress is hemmed with torn paper that encloses the bottom of the dress. The dress pattern is an original design created using the Micro Dynamics CAD system.

The flat-pattern method was used for constructing the dress. A top and skirt were sewn together and fastened at the back with three large hook-and-eyes with a zipper in the skirt portion. Boning was used in the bodice to add body and support to the triangular-shaped top of the bodice. Modge podge type adhesive provides closure. The patterned bodice was embellished with additional ribbons to maintain a fitted structure.

Through experimentation a fabric was created that was inspired by texture, color and movement. I was further inspired by the challenge of creating a garment that would incorporate the created fabric structure into a creation of wearable art. The garment is a tiered dress with empire silhouette. Alternating patterned panels highlight the tied areas. The hand-dyed knit base was created by hand cutting and tying yards of ribbon-like luxury fabrics. The strips vary in length and width and are placed to integrate texture, light, and color. A side zipper
specifically for fabric was used to glue the torn pieces of magazine in place and then to cover the entire dress for a leather-like appearance. The top is lined with the trigger poplin to cover the boning and give the garment a finished look. Paper clips were used in rows of three to hold the bodice in place.

COLD CONTROL

Kathy K. Mullet
Radford University, Radford, VA 24142

The purpose of this outfit is to provide warmth and wind resistance for cold weather biking. In surveying the market of currently available apparel for this activity, it was found that much of the apparel was not appropriate. The garments in the market include shirts or tights made completely of pile, or shirts and pants which are made of a simple windproof fabric. Though layering the garments is possible, the rider usually becomes overheated from too many layers in the wrong places or the fabric is too warm for the activity.

This garment combines a windproof pile fabric for the sleeves and chest area of the body and a lightweight nylon supplex fabric for the back and sides. The sleeves are separate from the body of the jacket to provide freedom of movement and ventilation. A mesh fabric is used in the sleeves and upper body area to provide additional ventilation. A zipper with front flap provides the wearer with additional temperature control.

The tights are a sueded spandex with supplex chap on the front of each leg. Again it is important that only the area of the body which is exposed to the wind is covered.

FLIGHT COMMANDER SUIT

R. Jesse Deneaux
Wayne State Univ., Ferndale, MI 48220

This garment is a cutting edge blend of the neglected jumpsuit idea of the 70s with the realistic needs of a downhill skier or snowboarder. This garment blends the warming properties of polar fleece, the durability and care ease of rip-stop camouflage, and the sporty sheen of iridescent vinyl. The front closure of the garment is designed for either right or left hand opening with the 90-inch zipper ending on the face mask for easy access on the full body seal. The entire front section is detachable for a wide selection of ventilation and activity needs. The zip fly has a similar theme with a large "arc" style closure, ensuring that no amount of layers will interfere with the wearer's ability to relieve himself.

HARBOR MASTER

Melissa Blankenship and Kathy K. Mullet
Radford University, Radford, VA 24142

This garment was designed from donated fabric and for a specific category of "Transportation Wear." Due to the type and feel of the fabric, a garment which was warm and waterproof was designed. This garment would be worn by a ferry boat operator.

The outfit includes a jumpsuit with chaps. The chaps are attached at the side of the leg and can be rolled up as a decorative panel when not in use. The jacket is reversible and has been designed with freedom of movement and ventilation. The sleeves are separate from the jacket and attached at the hood/neck area. This allows the arms to move freely but also allows for air to circulate under the arms.

The jacket is completely lined and reversible. A center front zipper is used in both the jacket and jumpsuit. The jumpsuit's seams have been serged to provide stretch to the seams.

INSPECTION COVERALLS

Laura Taylor
University of California, Davis, CA 95616

Designed for people working in the inspection/pest control industry, this garment incorporates a sturdier, lightweight fabric than the coveralls currently used in the industry. The design also uses nylon pack cloth to replace the heavy vinyl patches used to protect areas of intense abrasion. As the pack cloth is heavy and does not breathe, I chose a nylon fabric similar in texture to the pack cloth, but with breathable characteristics, for other areas of the garment. A "breathable" fabric makes the garment more comfortable for the inspector.

Placement of the zipper at the side and on the diagonal protects the zipper from abrasion that occurs when it is necessary for the inspector to "belly-crawl" under a building. Velcro closures at the wrists, ankles, and neck make the garment instantly adjustable to many sizes. Elasticized neck and waist provide for more adjustment and add comfort. Integration of the patches into the pattern eliminates abra-
sions to the topstitching that cause premature damage to the garment.

Standard industrial sewing techniques were used for construction, with special attention given to strengthening areas of stress.

SLIPPING DOWN THE MOUNTAIN

Justin Nemec and Diane Sparks
Colorado State Univ., Fort Collins, CO 80523

Oversize and loose outerwear jacket for snowboarding has a large curving graphic appliqued to the back left side. The jacket has front diagonal welt pockets and does not have a belt or drawstring engineering to create fit at the waist. The rationale for this is to allow snow to fall out of the jacket freely. The jacket is lined with wind-proof fleece, and all outer fabrics are water resistant.

THIN AIR JACKET AND PANTS

Jane Ruth and Eulanda A. Sanders
Colorado State Univ., Fort Collins, CO 80523

The object of this project was to design functional and aesthetic garments for males engaging in climbing. Bold colors were selected based upon market research on the preferences of the target consumer. The jacket and pants were constructed from windproof, water-repellent fleece and were designed specifically for ice climbing but may also be used for hiking or general weather protection.

In addition, the designer created the "Thin Air" logo which was machine embroidered onto the jacket and pants with industrial embroidery equipment. Some of the functional features include pit zippers, mesh-lined pockets, zipper flaps, articulated elbows, two-way leg zippers, and nylon supplex shoulder, elbow, derriere, and knee patches.
CLASSY KHAKI

Barbara Coon and Nora M. MacDonald
West Virginia University
Morgantown, WV 26506

Concerns of female consumers 55 years and older and the preferences of an individual client for casual styles that downplay a full bustline and compensate for narrow, uneven shoulders were used to develop the design concept for this dress. The client's personal coloring influenced the selection of fabric colors. Inspired by traditional ethnic garments in North Africa, the Middle East, and Asia, the dress reflects the sophisticated personality of the client and her gamine look.

This slightly flared one-piece dress has dropped armhole kimono sleeves, front neckline placket with button closure, and side in-seam pockets. The princess seamline bodice offers fit for a full bustline and an opportunity to play with contrasting fabrics. For walking ease, the center back seam is vented. Shoulder pads and the use of striped fabric cut on crosswise and lengthwise grain, for side bodice and sleeves respectively, help to create a visual effect of broad, even shoulders. The dress is constructed in a 100% cotton homespun fabric with clean finish or zig-zag finished seam allowances. Underarm kimono seams are tape reinforced, and the hemline is mitered at the back vent. The flat pattern method of pattern making was used.

IKAT FUN

Sandra S. Hutton
Colorado State Univ., Ft. Collins, CO 80523

The corduroy jacket was constructed to form a base on which hand-dyed, handwoven ikat could be displayed. Two warps of 8/2 unmercerized cotton were wrapped and dyed in two color schemes using Procion MX dyes according to standard ikat and cellulose dyeing procedures. Yarns from each warp were threaded alternately in a double, two-tie unit weave. Black 10/2 mercerized yarns were threaded in stripes on the tie down shafts to provide variety. A thinner yarn (16/2 unmercerized) was used as weft in order to create a warp emphasis fabric which more vividly displays the ikat warp. The selected treadling pattern features zigzag and diamond shaped motifs.

The jacket was constructed of commercial corduroy in a color which emphasizes dyes in the ikat. The jacket design incorporates pockets in the side seams, full lining, and dropped shoulders.

A drawstring was included in the hem of the garment. Features which make this jacket appealing to the 55+ population are a loose fit, dropped shoulders, and fabric and style which are casual in mood.

MIDNIGHT IN PARIS

Carolyn Schactler, Central Washington University, Ellensburg, WA 98926

The goal of this research was to create a holiday season "Grandmother of the Bride" gown that is beautiful, has class, and is an exciting color. It must also be a design that
respects and addresses the physical needs of the older woman. This gown is as beautiful and exciting as its title suggests.

An exquisite metallic blue and black fabric was found to form the base of this design. Its rich, lustrous color and marvelous draping potential made it irresistible. The color makes exciting changes depending on the light and angle of viewing. It has a straight elastic waist skirt and simple shell of black panne velvet.

The blue neckline of the gown bodice is a modified shawl collar, just tall enough to conceal neck wrinkles but not high enough to touch the chin. The exaggerated bat-wing sleeves provide great ease of movement and disguise the muscle tone of the arms.

SCOTS CLASSIC TAILORED SUIT: FITTED JACKET AND STRAIGHT-LEGGED PANTS

Markita Price
Stephens College, Columbia MO 65215

Women over 55 are at increased risk of breast cancer. The designer, a cancer survivor, chose to create a classic, comfortable suit for professional women returning to work following treatment. The colors and weave of the wool, purchased from the Mull Weavers on the Inner Hebrides island of Mull during a visit to Scotland, mirror the mist of the moors with the brightness of the heather, broom, thistle and other early summer flowers. The suit allows for tops of all types to blend with the classic lines of the four pieces. Details include buttons of pewter in a modern weave version inspired by the Celtic influence of Scotland and Ireland.

The fully lined princess-style jacket has lines that continue to the soft pleats of the pants as well as the front panel of the modified kilt. The higher neck crossing of the jacket allows surgery scars to be covered so that the suit can be worn without blouses or tops. The front welt pockets have a flap that can be tucked inside the pocket. There are working button-holes on the three-button sleeves. Classic custom tailoring techniques were used to construct the suit.

The fully lined pants have two soft pleats in front with curved side pockets. The pants are cuffed and straight legged. The front pleats match the points of the vest when worn as a three-piece suit. The inner pocket lining forms a front panel to increase the strength across the front of the pants. To reduce bulk at the waist, the back of the waistband is a grosgrain ribbon.

SCOTS CLASSIC TAILORED SUIT: FITTED VEST AND MODIFIED KILT

Markita Price
Stephens College, Columbia MO 65215

While visiting Scotland the designer purchased wool from the Isle of Mull in the Inner Hebrides. The suit designed for older women needed to have ease of movement as well as evoke the classic lines of the Scottish kilt. As a cancer-survivor, the designer created this suit for other survivors. The lines and colors of the four-piece suit allow for many possible styles of blouses or tops.

The fitted vest is fully lined. The neckline follows the jacket neckline. The interesting curved points of the vest front hemline follow the panel lines of the modified kilt or the open pleats of the pants (when worn with that item). The four front buttons are of pewter in a weave pattern that is a modern version inspired by the Celtic influence of Scotland and Ireland. The back of the vest uses a belt to pull gentle gathers at the waist. The hemline of the vest follows the line of the yoke of the kilt. The key pockets are single-welt.

The non-belted modified kilt has a full yoke and has an overall A-line shape. There are four pleats on either side of the front and back panels, with the panels forming a fifth pleat on each side. The skit is fitted to the hips and fully lined. The front panel has six buttons
that echo the jacket and vest buttons. To reduce bulk at the waistline, the skirt does not have a waistband.

SHADY LADY
Wilma Ridgeway
Ball State University, Muncie, IN 47306

For a designer, which comes first the design or the fabric? In this case the fabric was originally purchased to create a blouse. Further consideration revealed that creating the blouse planned would ruin the ombre design of the fabric. The problem then became what to do with this piece of fabric.

The inspiration was the fabric itself. The darker shading on the gray-green polyester crepe was at one selvage edge. The design needed to be simple and had to take advantage of the ombre design. A simple two-seam design was chosen. The fabric was cut using the crosswise grain to make best use of the shading. The only real design elements are the loop-fastened buttons on the shoulders of the dolman sleeves and the French binding at the neck and sleeve ends. Five loops and buttons on each shoulder provide the opening for the dress as well as a design feature.

A computerized pattern design system was used to generate the pattern. French seams were used on the two side seams. Neck and sleeve openings were bound using the French binding method. A narrow machine hem completes the garment.

SHIBORI SUNSET
Cynthia Myerberg and Nora M. MacDonald
West Virginia Univ., Morgantown, WV 26506

Arty and sophisticated, this plain weave, 100% viscose rayon kimono jacket and pants ensemble was designed for women 55-to-75 years old. It combined both style and comfort for after-five and cocktail wear. This design was inspired by a Victorian menswear nightshirt. The unlined kimono jacket featured contrasting bands and dropped armhole seam lines. Custom-made buttons placed on the right edge of the wide front band mimicked button placement on the design inspiration: Narrower bands were used on the neckline and sleeves.

The design took into consideration the needs of the over 55-year-old client providing generous ease, front closures, and long sleeves. Pull-on pajama pants featured a flat front waistband with an elasticized back for ease of garment entry. Trouser pleats were incorporated into the pants front to flatter a thicker waistline and abdomen. The flat pattern method was used to design both the jacket and the pants. Construction techniques included French seams, faux French seams on both jacket and pants, and custom-covered shoulder pads. Fabric for this ensemble was hand dyed by the designer. The contrasting bands were overdyed using the Japanese shibori method. The ensemble was worn with custom-made earrings that matched the buttons.

SHOOTING STARS
Janet Hethorn
Univ. of Delaware, Newark, DE 19716

Problem Statement: To design uniforms for the Senior Women's Basketball League in San Diego, California. This group of 60 women are very active (and aggressive!) players between the ages of 50 and 82. They play nationally and wanted a uniform that fit and looked great. Uniforms currently available in the marketplace do not address the changing body forms of older women.

Inspiration: I conducted a lengthy focus group session with the athletes and followed that by videotaping four hours of their practice. Through content analysis and movement analysis, as well as close observation, the design goals were set. Constant back and forth with the players continued to inform the process. I also became familiar with uniforms in general
through studying images in the media (TV and print) and observing at collegiate women's games. Some design features were required, such as number placement and colors.

**Description:** This uniform has unique design features built in that address the fit and action requirements of the older women. The top is shaped wider at the lower edge, so as to not hang up at the hip. The armholes are shaped narrower in the front, following the arm/shoulder shape of an aging body. Armholes are also designed to be high enough under the arm so that the uniform may be worn without a second garment under it, but still low enough to accommodate a light T-shirt. The T-shirt is optional, as some women wanted to cover their upper arms and some preferred not to. The shorts provide a comfortable, secure fit and are just loose and long enough (6" inseam) to move well but not show the current big baggy, saggy look that professional and collegiate players seem to prefer. The logo on the uniform was designed with the team name placed at an angle to hint at dynamic motion.

**Techniques:** The patterns were developed based on fit and sizing needs of women over the age of 55. The logo was screen-printed and the numbers were heat set. Standard industrial sewing techniques were used.
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<td>Patricia E. Horridge</td>
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<td>Sandra S. Hutton</td>
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<td>Antigone Kotsiopulos</td>
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<td>Grace I. Kunz</td>
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<td>Jane M. Lamb</td>
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### ITAA HONORARY MEMBERS

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<td>1978</td>
<td>VPI &amp; State University, Blacksburg, VA</td>
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<td>Charles Kleibacker</td>
<td>1985</td>
<td>The Ohio State University, Columbus, OH</td>
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<tr>
<td>Dorothy Seigert Lyle</td>
<td>1980</td>
<td>International Fabricare Inst., Silver Spring, MD</td>
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<td>James A. Morissey</td>
<td>1990</td>
<td>American Textile Manufacturers Institute, Washington, DC</td>
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<td>Fisher A. Rhymes</td>
<td>1988</td>
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<td>Steven Stipelman</td>
<td>1993</td>
<td>Fashion Illustrator, New York, NY</td>
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Esther A. Meacham, 1990
The Ohio State University
Nancy J. Owens, 1993
CSU Northridge
Naomi A. Reich, 1989
University of Arizona
M. E. Roach-Higgins, 1989
University of Wisconsin
Margaret H. Rucker, 1993
Univ. of California, Davis
Barbara S. Stowe, 1990
Kansas State University
Phyllis G. Tortora, 1989
Queens College
Phyllis Specht, 1989
Mt. San Antonio College
Anna J. Treece, 1989
University of Tennessee
Jo Ellen Uptegraft, 1989
University of Oklahoma
Carol Warfield, 1995
Auburn University
Susan M. Watkins, 1991
Cornell University
Gloria M. Williams, 1994
University of Minnesota
Geitel Winakor, 1989
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