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Linda Welters
Sandra Forsythe
Sharron Lennon
Ian Weatherall

Christine Ladisch

Flora Beth Cunningham

Elaine Pedersen

Laura Jolly

Jill Oakes

Gina Eubanks

Lenda J. Anderson

Rinn M. Cloud

Sandra Hutton
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President's Address

Discovery 92: Charting Our Directions

Betty L. Feather, ITAA President

University of North Carolina at Greensboro NC

Discoveries are generally based on previous experience and the desire for improvement. During the October 1992 meeting in Columbus, the membership heard speakers address the need for change and improvement in our discipline. Both Al Dietzel, Executive Vice President, Finance and Public Relations, The Limited, Inc. and Joan Laughlin, Associate Dean for Research at the U. of Nebraska, urged members to chart future directions by defining who they are, taking risks, recognizing the necessity for change, and evaluating where these changes will lead.

Our founders believed that we needed to provide continuity in the discipline. A need existed to identify, mentor, and support promising young professionals. These founders began to save for fellowships, and in 1980 the first fellowship was awarded. At the 1992 meeting, five fellowships were presented.

During the 80’s a SWOT evaluation process was used to examine if ACPTC (ITAA’s predecessor) was meeting current and future needs: it evaluated our strengths, weaknesses, opportunities and threats. As a result of that experience we have a national organizational structure, a global perspective with many international members, an increase in membership from 741 in 1985 to 955 in 1992, a new name reflecting greater focus, and new grant, internship, and fellowship opportunities.

During the SWOT process, members recognized the need for diversity in the membership and expanded opportunities to professionals other than college professors. Today, we have several members in related occupations who are associate and corporate members. This brings different perspectives and also provides outreach and articulation to key audiences.

While we are proud of our achievements, there are challenges to address. Will Rogers said that even if you are on the right track you will get run over if you just sit there.
The major challenge continues to be the curriculum. Who are the consumers of our programs? How or when should we change? We all face limited resources; we can't be all things to all people. Our programs are only as good as the weakest component; therefore, we must focus.

We know the challenges—lack of program standards, resource limitations, some declining enrollments, and reduction of funds. Don't wait until these challenges face your program and consider the changes that need to be made.
I invite you to join me in thinking about trends that have taken place in contemporary textile and apparel arts during the past 35 years. I will trace the trends to a revolution that occurred in the sixties and describe the circumstances that brought it about. Then, I will comment on the evolution of trends that followed decade by decade up to the present time and point out specific contributions of selected artists.

I believe there is merit in reviewing the recent history of textile and apparel arts and describing their current level of development for this organization. Fiber is basic to the concerns of the International Textile and Apparel Association. Use of fiber, as a medium of artistic expression, is an activity which this organization supports. We need background concerning the past to guide us in planning meaningful activities and projects in the future. According to the philosophy of Barbara Tuchman, one of America's best-known historians, it's worth knowing where we've been (Flowers, 1989). It seems appropriate that we include sites pertaining to the textile and apparel arts in "Charting Our Directions."

My interest in the topic is more than academic. My career has evolved along with much of what I'll be discussing. I was pursuing my education in the fifties when increased interest in fiber as a medium of expression began to take place in the United States and Europe. Some of the persons who had vision and knew that breakthroughs were about to occur were also educators. I had the opportunity of working with one and knowing another at the University of Wisconsin-Madison: Professors Hazel Paschall and Helen Allen. Each in her own way had a passion for fiber and an understanding of the untapped potential it had as a renewed form of expression. I think often about the contribution each made to my background.

When major innovations in the use of fiber were brought to the attention of the public in the sixties and described by the press as revolutionary, I was in the early stages of my career, first as a retailer, then as a designer and later an educator. Each facet of my career path required me to make connections between my immediate activities and the widespread trends that were taking place. During that decade, I became aware of how similar my interests in fiber were to those of a number of individuals working independently of one another throughout the world.

The revolutionary nature of the innovations which occurred in the sixties evolved into various interpretations and spinoffs during the seventies and eighties. Several made an impact on the development of my thinking and consequently on the kind of art I was striving to create. Many of the artists who worked independently of one another during the sixties became acquainted during the seventies and eighties and networks began to form all over the world. Having the good fortune of participating in some of those networks has been a rich source of inspiration and personal enjoyment. Some of the material which I'll be sharing has come from those networks.

Up until the early nineteen sixties, it appeared that fiber had reached a maximum level at which it would be respected and appreciated as a medium of expression. It appeared that fiber would remain a medium of craft and tapestry would be the form in which it would continue to be the most highly regarded; however, those ideas were only assumptions. In an inconspicuous way, a revolution commenced taking place. Signs of it began to appear when individuals in both the United States and Europe began questioning the traditional approaches to working with fiber. Despite being separated geographically and in most cases neither knowing one another nor having a network of communication, artists working in fiber commenced pursuing commonalities in experimentation, exploration and innovation. The common calling to which they seemed to be responding had an element of mystery about it that was similar to other forms of cultural innovations which had occurred simultaneously in isolated areas despite lack of any known form of communication.

The revolution which was taking place was brought to the attention of the public in 1961 when Lenore Tawney presented a solo exhibition of her new work at the Staten Island Museum in New York (Fiber R/Evolution, 1983). Although she had used the tapestry approach for creating two-dimensional imagery, she had exposed warp threads and created variations in texture. The open, translucent effect that was created was new and exciting. Within a short time, other revolutionists who were
working with fiber began to make themselves known through their work. Artists on both sides of the Atlantic worked diligently during the years that followed to re-define the use of fiber as a medium of expression. Collectively they moved fiber into the realm of fine art. The impact of their accomplishments was so intense that it affected the work and careers of several generations to follow up to the present time.

Several innovations characterized textile art during the sixties (Constantine & Larsen, 1981). There was a departure from the traditional rectangular shape that had dominated work in fiber for so many years. Works in fiber moved away from the wall and became three-dimensional. Instead of being suspended, they became self-supporting structures. Many pieces were massive. Sisal was a frequent choice of material and along with loosely spun raw wool and roving, generated new visual and tactile interest.

As innovations in textile arts were being shown more readily than before in museums and galleries throughout this country and Europe during the sixties, another kind of revolution was taking place. It, too, involved the medium of fiber. It emerged as part of the anti-establishment counterculture that was permeating the country at the time. Hippies used clothing as a type of folk art to defy traditional forms of dress. Early signs of the revolution in apparel were in the form of patches, frayed edges and emphasis on use of hardware such as chains and rivets. Conventional denim garments served as three-dimensional canvases which were decorated to make statements about the wearer and his or her concerns.

The revolution in apparel which was taking place in the sixties was quite apart from the one that was occurring in textiles. Each was motivated by a different set of cross-currents. Aside from being manifested in different forms, each type played a different role in bringing about change. Innovations in apparel design were intended as a means to an end whereas new forms of textile design were ends in themselves. Each category would follow a different course of evolution in the seventies, yet they would come together in an unexpected way during that decade.

The revolutionary spirit that had ignited in relation to fiber in the sixties was extended into the seventies. Innovations in textile art continued to be characterized by monumental scale, dynamic organic qualities and emphasis on the inherent characteristics of fiber. Although the linkage to the sixties was apparent, textile and apparel art in the seventies had its own distinctiveness. There was increased interest in the effects of dyeing. Needle techniques were pursued more vigorously. Whereas fabric in highly innovative forms had been the end product in the sixties, it became a material for manipulation and embellishment in the seventies. Fabric became dyed, darned, stuffed, woven and embroidered by hand as well as by machine (Constantine & Larsen, 1981).

New forms of apparel art emerged in the seventies. Although some of its antecedents were in the hippie attire of the earlier decade, it was beyond what could be described as body art. Referring to it as costume was in most cases inappropriate because it was permeating mainstream society and not limited to the theater or ethnic tradition with which the term "costume" had generally been associated. For lack of a better term, the phenomenon became known as "wearable art."

Many of the trends that had characterized the textile and apparel arts during the seventies continued to be played out in the eighties. In textile art there was less emphasis on using fiber and fabric to create form and more concentration on creating surface design. Interest in the effects of dyes and pigments in both textile and apparel art not only continued but was stimulated by new products from industry. Interests developed in a wide range of surface effects that could be obtained by applying pigments to other materials. The ancient Japanese technique of shibori was revived. Several artists pushed embroidery to new limits. Piecing became a dominant technique in both textile and apparel art. Many of the pieced textile art works were done in the form of quilts which resulted in both traditional and contemporary characteristics. New photographic processes enabled the transfer of images to fabric. Heat-transfer techniques provided opportunities for creating new types of imagery (Colchester, 1991). Heat-molding techniques resulted in new configurations in texture such as rubber printed effects baked on silk. New steaming techniques when combined with hand painting produced sculptured surface effects.

In general, textile and apparel arts seemed to grow in status during the eighties. More and more galleries and museums featured work in fiber and fabric. Competitions at all levels increased. The Association of College Professors of Textiles and Clothing commenced sponsoring exhibitions, first at the regional level, then at the national level. The National Surface Design Association which had been organized in the seventies, grew in stature in the eighties. A trend in collecting items of fiber art at the level of both craft and fine art emerged throughout the country (Colchester, 1991).

Despite being in the early years of the nineties, a few trends in textile and apparel art have
commenced to appear. Interest in tapestries has been renewed. More than thirty years have passed since artists of the sixties became tired of its limitations and adopted other forms of expression. In the meantime, a new generation of artists has discovered its potential. While more and more tapestries are going up in public spaces and private residences, some of the monumental pieces that were installed in the sixties and seventies are coming down. Many have become dusty and subjected to the ravages of time.

Apparel artists throughout the country seem to be in transition. The prevailing aesthetic is for garments with sleek lines rather than labor intensive ones with heavy embellishment. Some artists have had to change their approach, seek a new clientele or both. Studio artists in both textile and apparel art have had difficulties in staying afloat due to the sluggish economy. Some have complained about fewer opportunities for exposure to their work due to reduced numbers of exhibits in galleries and museums. Textile and apparel artists have clearly experienced better years. Despite the austerity of the times, progress in the textile and apparel arts is being made. Contrary to what one might think, some of the most exciting forms of art have emerged from periods of difficulty. The history of art supports that idea. Limitations and restraints can stimulate the creative process at the individual as well as the collective levels of human activity.

During the past few years, increased efforts have been made in ITAA to accommodate the interests and needs of members working in the areas of textile and apparel arts. The leaders of this organization have diligently made policies, set procedures and considered details in an effort to provide comparable opportunities for members with various types of backgrounds and interests.

The decisions that have been made and the concerns expressed over the art component of the organization have resulted in stronger members, but the significance goes beyond the accommodation of membership. In years to come, members of the Association will look back with special gratitude to their leaders for the attention given to the arts. In many respects, their vision is similar to that exemplified by the persons who anticipated changes in the significance of fiber in the sixties. Some of our leaders who have worked diligently toward nurturing development of the arts in this organization are not practicing artists themselves, yet they seem to have known from knowledge or intuition about the value of art.

During the past several years, economic, social and political forces have prompted persons to work toward a new world view with a global perspective. It is still in the process of being formulated. References to it have been made often during this conference. Many of the paradigms which were relied on to provide guidance in the past are no longer working effectively. Some are completely out of commission which is why persons are headed toward a new world view.

During times of transition, there is a tendency for persons at both the individual and collective levels to turn to art. Art mirrors human activity. It reflects the values, attitudes, interests and morals of a culture. Art challenges human beings to think about themselves and the greater context of which they are a part.

Human beings are motivated to construct a conception of reality for themselves. To do so they have drawn upon a wide range of media. The outcomes of their efforts have been referred to as art. According to the original meaning of the term "art," all human beings were involved in it. They continue to be, when art is broadly considered. However, as civilization developed, the term "art" became associated with specialized forms of expression and the term "artist" emerged in reference to persons pursuing them.

Art flourishes in a dynamic culture as its participants propose various conceptions of reality. Some are believable, others are not. Due to the wide range of potential proposals, a process is needed for identifying those proposed conceptions of reality that are most accurate, most vital and most worthy of being used in socializing new participants. The term for that process is "science."

Art and science are fundamental processes. Each is a basis for creativity. Creativity in art promotes new proposals for interpreting reality. Creativity in science promotes new ways of validating the merits of new proposals.

Textiles and apparel have a place in both art and science. In art, textiles and apparel are media for helping to develop conceptions of reality. In science, textiles and apparel are bases for determining the extent to which claims made about them are true.

Through the centuries, human beings have formed their conceptions of reality through the parallel processes of art and science. At certain times, art has made an impact on perceptions of reality. "When Picasso was told that his portrait of Gertrude Stein did not look like her, he replied, 'Don't worry, it will"' (Leshan & Margenau, 1982, p. 189).

At other times, science has been the major force in constructing conceptions of reality. In addition to their respective influences on formulating conceptions of reality, art and science have influenced each other. "A change in artistic comprehension of reality may herald a change in
the scientific world-picture, or vice versa" (Leshan & Margenau, 1962, p. 188). The impressionist painters were making advancements in understanding light before physicists had made breakthroughs in explaining light through relativity theory and quantum mechanics. In turn, the mechanized conception of the world that science has helped to create has affected art and all the more so through technological innovations which have provided new media.

To move ahead according to a new world view, ITAA needs to re-examine the processes of art and science and place the relationship textiles and apparel has to each in perspective. The reason for doing so, is not that the organization has been remiss but that formulating a new world view requires doing so.

For the past few centuries, conceptions of reality have been heavily influenced by science with art being less of a factor. The prevailing influence of science has been traced to the principles of physics introduced by Sir Isaac Newton during the beginning of the Eighteenth Century. Newton saw the world as a giant machine that could be understood through "reductionism," the practice of attempting to account for all properties of highly complex systems in terms of their simplest components..." (Leshan & Margenau, 1982, p. 35).

Science, and the technological achievements that have resulted from it, have defined our culture during the past few centuries and brought us many wonderful things which we would not want to be without. Science has enabled human beings to construct a representation of reality that is so convincing that it has been mistaken for reality. The map that was created to help us find the territory has become the territory. Art no longer functions as effectively as it should because it, too, is heavily influenced by science and technology. In addition, we've lost some kinds of expertise in using art.

Theories in physics that were formulated during the early part of this century have made the issue even more complicated. Relativity theory and quantum mechanics indicate that matter is interconnected and that isolating the observer from the observed is not the objective process it was thought to be.

The suggestion is not being made that we abandon science but that we coordinate it more carefully with art as we chart our directions toward a new world view. The journey probably will not be easy as we leave familiar territory behind and head toward new ground. But, we will go forward with good resources. The revolutionists of the sixties and seventies established that fiber is a basis for art. We already have a record of achievement in science.

During times of transition, I think often of the content of Pentimento by Lillian Hellman (1973). It's a collection of stories about changes in the lives of various persons with whom the author was associated. You may have seen or heard about a film titled "Julia" that was based on a section of it. The underlying concept of the book is expressed in the following statement from the introduction:

Old paint on canvas, as it ages, sometimes becomes transparent. When that happens, it is possible, in some pictures, to see the original lines: a tree will show through a woman's dress, a child makes way for a dog, a large boat is no longer on an open sea. That is called pentimento because the painter 'repented,' changed his mind. Perhaps it would be as well to say that the old conception, replaced by a later choice, is a way of seeing and then seeing again (Hellman, 1973, p.1).

The idea of "seeing and then seeing again" is central to the process of charting new directions. Looking at the present in relation to the past is a type of pentimento, a basis for making changes in the future. Then, as the future becomes the present and the present becomes the past, pentimento becomes apparent.

As ITAA charts directions toward a new world view, it is concurrently creating the configuration against which merits of the organization will be assessed in the future.

One can only hope that the directions taken in 1992 were consistent with the mission of ITAA, that they were charted with vision and insight and at some time in the future, they will show through vividly as pentimento, seeing then seeing again.

REFERENCES


A RETROSPECTIVE VIEW OF OUR PROFESSIONAL ORGANIZATION
FOR CHARTING OUR FUTURE

Lois E. Dickey, (Emeritus) The Ohio State University
Knoxville, TN 37922

This is the 13th national meeting for our professional organization -- and in this case I consider 13 to be lucky! With that in mind, I would like to share with you some perspectives from the past of our professional organization, ITAA, which serve as a basis for some "points of pride," followed by some ideas to consider in charting our directions, both professional and personal.

Four years ago, 1988, I spoke at the last regional meeting of the Central Region, Association of College Professors of Textiles and Clothing, their 38th meeting. The focus of the talk was on our professional heritage, specifically, those events and activities that occurred in our professional organization in the Central Region, and, to a limited extent, in the national organization.

Today, I will focus on the emergence of the national and international organization for our profession by noting some "landmark" or "pivotal" dates, and noting some critical events or activities which have occurred. However, for every event which I have assigned a specific date, there have been years of work and effort to bring it about. My choice of events or activities reminds me of the African proverb, "Until the lions have historians, tales of hunting will always glorify the hunter" (Ohio State Quest, Su., 1992, p. 12). Thus, my choice of events and dates from our professional records reflects my perspective of our history.

The first dates to note are 1944 and 1947 when the first Conferences for College Teachers of Textiles and Clothing were held. The late Marjory Joseph succinctly presented the "History and Background of ACPTC" in the first issue of the Clothing and Textile Research Journal (Joseph, 1982, p. 31-33). As she noted, working conferences were held in the 1940s for invited groups of teachers of textiles and clothing from university and land grant colleges in each of three regions in the country. These conferences were initiated and supported by the organization of home economics administrators and the U. S. Office of Education with the purpose of strengthening the course content and with a view to making adjustments for meeting post-war needs.

As I reviewed the three regional Proceedings for the first conferences, it was apparent that each region approached the overall purpose of the Conferences quite differently and developed their organizations in distinctive ways. Thus, three strong regional groups developed. Bringing them together into one organization as we have today has taken vision, patience, and commitment.

To give you a feeling for the scope of the first conferences, let me provide a few figures. Criteria had been established regarding the colleges/departments to be invited. The first regional conference was held by the Central Region in Chicago in May, 1944. It was attended by 34 participants from 22 institutions in 14 states. In November, 1944, the Eastern Region conference met in New York; there were 43 participants from 37 institutions in 15 states. The first meeting for the Western Region was held in Corvallis, Oregon in 1947. The 35 participants were from 11 institutions in 6 states. Thus, from a national perspective, 70 universities or land grant colleges in 35 states were represented by 112 college teachers of textiles and clothing.

The Conferences were organized as Working Committees so that all participants were involved. Common areas of discussion for all three Regions were curriculum content and ways to strengthen it, the use of teaching materials, evaluation, and the employment opportunities for their students. Differences in approach and program content for the Conferences were evident. Western Region began their conference with a report on trends and factors in the West which would influence textiles and clothing. One afternoon was devoted to research reports and discussion of ways to strengthen
research and the possibility of cooperative research. The Eastern Region meeting was opened with a report on "Opportunities and Responsibilities in the Area of Textiles and Clothing." A report by the Research Committee identified possible areas of investigation, and later, the Conference accepted the recommendation that research in the area of Textiles and Clothing be developed and strengthened. The Central Region meeting was organized on the basis of five problems identified by the participants prior to the meeting. Specific concerns were expressed and discussed regarding the preparation and experience needed by college teachers, and the kinds of leaders needed in the field of textiles and clothing.

From these beginnings, the regional groups of College Teachers of Textiles and Clothing continued to meet in a pattern suited to each group. The criteria for attendance gradually changed which increased the number of participating institutions and faculty. Communication within the Regions was difficult for the Proceedings were sent only to those who attended; communication between regions was even more limited.

The next "landmark" date is 1959, the first National Meeting of College Teachers of Textiles and Clothing was held in Madison, Wisconsin. The theme was "Textiles and Clothing Moves Forward." Although a proceedings was not published, the program and some of the speeches are held in the ITAA national office. Overviews of a changing society were presented by a sociologist and an anthropologist, followed by presentations of the present status of textiles and clothing in higher education. A home economics administrator spoke on "The Place of Textiles and Clothing in the Total Home Economics Program." Two participants who had served as leaders in the first regional conferences in 1944, spoke on "The Direction of the College Textiles and Clothing Programs in the Future." They identified a number of challenges for the future, three of which were: (1) to achieve a high level of professional performance as teachers (Whitlock, p. 1); (2) to provide a scholarly and relevant curriculum for students (Whitlock, p. 1); (3) to seek improvement and advancement as scholars and professional people (Myers, p. 3). Examples were given for each of the challenges, such as, the limited opportunity for doctoral study and the need for more candidates.

Two specific outcomes of the First National Meeting were the decision that more national meetings should be planned, and, the development of an organizational plan for coordinating the work of the three regions by means of a National Steering Committee. Thus, the second and third National Meetings were held in 1964 and 1968 under the leadership of a nine member National Steering Committee made up of three members from each Region. This elected Steering Committee was a forerunner of our ITAA Executive Council.

1971 is our next key date. During the 1960s, the National Steering Committee struggled and worked to develop a plan for a national organization which would be accepted by the three regions. The concept of a national organization was acceptable if the three regions remained an integral part. Thus, the national organization of the Association of College Professors of Textiles and Clothing (ACPTC) was approved along with the three regional organizations of ACPTC. These events were celebrated at the Fourth National Meeting in 1971 at Charlotte, NC. Henceforth, national meetings of ACPTC were held every third until 1988; since then a national meeting has been held yearly.

The emergence of a national organization brought many changes, one of which was the concept of membership and dues structure. Prior to 1971, "attendance" of the meetings and payment of registration fees enabled one to receive a Proceedings. As of 1971, members received a Proceedings for the national meeting and for one regional meeting whether or not they attended the meetings.

The next three dates, 1975, 1978, and 1982, were selected for communication was further improved. Since 1975, each member has received a Combined Proceedings: Eastern, Central, and Western Regions for the years in which Regional Meetings were held and a Proceedings for the years of the National Meetings. Professional information was provided to all members regarding research, professional concerns, and ideas from across the
country.

In 1978, the publication of the Newsletter was assumed by the national ACPTC. It had been initiated in 1975 by the Eastern Region for its members. The yearly Newsletter has been expanded to four issues per year. Each issue includes information pertinent to members of our profession — a tremendous asset. It was also in 1978 that an Executive Secretary was hired, now changed to an Executive Director.

Then in 1982 the dream of publishing our professional journal materialized: The Clothing and Textile Research Journal. The leadership for the development of the journal came from Eastern Region, the first editor was from the Western Region, and there was strong support for a journal from Central Region. The first volume in 1982 included one issue; volume 10 in 1992 included four issues. In addition, four Special Publications have been issued and several more are in preparation.

1983 is another key date for after much planning, the Futures Seminar was held. The selected group of leaders who attended the Seminar and later interacted with members at regional meetings started the thinking and planning which has made significant changes in our professional organization. The approach selected for the Futures Seminar is an indication of the vision of our leaders. Funds were sought from industry which enabled ACPTC to obtain a professional consultant to lead the seminar.

In 1990, a pivotal date, we saw the beginning of a new decade and the introduction of our present organization; in 1991 our new name, International Textile and Apparel Association (ITAA), was initiated. The organizational and name changes were made possible by creative and dedicated leadership, and, by means of a carefully planned process to involve all members. Thus, our professional organization has changed in many ways since the 1940s. For instance, it has changed: (1) from a regional, then to a national, and now to an international organization; (2) from a regional and national structure to the one now built on professional interests/activities; (3) from membership originally limited to active academic professionals to one which includes many categories, including industry: Active, Associate, Retired/Emeritus, Reserve, Graduate Student, Institutional, and Honorary.

As a result of the changes in our organization, a number of opportunities have become available for members of ITAA: (1) increased opportunity for members to be involved in professional activities. One has only to count the number of members involved in the organization of this national meeting, and the number of members presenting research studies as well as teaching and creative projects to be aware of the scope of opportunities. (2) increased interaction with business and industry. Our leaders have been successful in reaching out to business and industry to seek funds for various awards. Also, the corporate membership category gives recognition to the benefits of interaction among textile and clothing professionals and business/industry. (3) increased recognition of the achievements of members. This has been made possible by means of awards and grants for professional activities — in research, teaching service, and creative works.

We have reason to be proud of our leaders for their vision, commitment, and dedication. They have put forth a tremendous amount of time, thought, effort, and ability to help move our profession forward and to strengthen it.

Let me go back to the First National Meeting in 1959 to the three challenges identified by our leaders at that time. I believe they would be proud of the progress made in each area. Many problems in our field of textiles and clothing have been met along the way. A review of the Proceedings and Newsletters over the years indicates such problems or concerns as periods of decreasing enrollment, periods of rapidly increasing enrollment, of student unrest, of limited opportunities for doctoral study, of the loss of some college programs, and for other programs, there have been name changes. These are only a few of the many problems that have occurred and been met. We are well aware that a myriad of social, economic, political, and technological forces impinge on or influence our professional and personal worlds. The themes selected for the 13 National Meetings reflect our cognizance of these forces. Six
of the 13 themes related to "the future" and focused on examining a wide range of forces influencing our future direction. The other seven themes focused on specific forces which influence our profession, such as communication and networks, teaching, industry, cultural aspects, creativity and ethics and social responsibility.

In working on this retrospective view of our professional organization --- from CTTC to ACPTC to ITAA --- I could not help but feel great PRIDE in my professional field, textiles and clothing, and the many individuals who have added to the knowledge in our field.

I would like to share with you what the word "pride" in our profession means to me by using each letter --- P is pride in the past of our profession and organization for it has provided a base for building for the future. R is to reach out for we need to reach out to attain our vision of the future. I is for the individual; each of you is important, and by working together we can make a difference. D is for dreams as we look to the future; let us always have our dreams. E is for expectations and hope for they are important as we chart our plans. So, be proud of the past of your profession and professional organization and the achievements which have occurred. I would like to borrow and adapt an industry slogan, "Crafted With Pride" to describe our professional organization for it has been "Crafted With Pride and Vision" by our leaders and with each member's support.

However, "pride" is not enough for need to "share" with others the accomplishments of our professional organization and members. A home economics Extension Service Administrator spoke at a meeting I attended last year. She pointed out that she "kept a little list in her pocket" that she could use at a moment's notice. This "little list" included specific examples of programs/activities/accomplishments which she could "brag about." Do we each have a "little list" available for use in promoting or informing others of our professional field of study, our professional organization, ITAA, and its members?

As a start in developing this "little list," one resource is the Newsletter. A review of recent ITAA Newsletters provided information about: (1) recognitions and achievements of colleagues; (2) happenings in ITAA such as grants from industry and business, and reports of committees and officers; (3) the wide range of publication sources in which members' works appear and (4) events and happenings of professional significance. I'm sure you will have many other items for your "little list" to show the extent and scope of professional accomplishments.

In thinking of our past and charting our future, I was reminded of a passage by Eli Wiesel who received the Nobel Peace Prize; "Just as a man cannot live without dreams, man cannot live without expectations. If dreams reflect the past, hope summons the future. Does this mean that our future can be built on a rejection of the past? Surely such a choice is not necessary. The two are not incompatible. The opposite of the past is not the future but the absence of future; the opposite of the future is not the past but the absence of past. The loss of one is equivalent to the sacrifice of the other." (Wiesel, 1986, p. 239). We need them both, dreams and expectations, along with hope, as we chart our future.

As you chart the directions for the future, I would like to share some thoughts with you for your consideration:

1. Communicate achievements and scope of your professional organization to your administrator. Home economics administrators were actively involved in our organization from the proposal for and implementation of the first regional conferences in the 1940s and over the years since that time. They received the Proceedings in the early years. Today, some of our textile and apparel colleagues who are now administrators have been active in leading ACPTC/ITAA. However, many of you come from colleges/universities in which your administrator is from another field of study. How much do they know about your professional organization? Do you make any effort to be informative? Do they see any of the ITAA publications? What can you do about communicating professional achievements?

2. Make the maximum use of indexing sources for literature in our field and be supportive of extending them. Literature in our field is
increasing and thus it is difficult to keep up with it. As I read the research reports in the Proceedings, I sometimes feel that I have read a similar study and wonder if there has been a thorough review of the literature. Are the various indexes thoroughly explored and used? Conversely, to what extent is the textile and apparel research being cited by researchers in other fields? I noted in the recent CTRJ that there are now eight sources indexing articles in the journal. That is one way for researchers in other fields to know about and cite the research in our field. But are there additional indexing and citation sources for the CTRJ? Are you supportive of such efforts?

3. Increase library holdings of publications in our field. A related point in regard to the research literature and publications in our field concerns the library at your institution. I realize this is a time of retrenchment and cut-backs, but nevertheless, I will ask some questions. Does your library have the ITAA Proceedings, the Clothing and Textile Research Journal? Does your library have the Clothing and Textile Arts Index? And, do your students make use of these resources? If library funds are not available, is there some thing you can do to make these publications available?

4. Market your profession and professional organization with enthusiasm and pride. If you were asked, who are textiles and apparel professionals, and, what do they do? Do you have a ready answer? Broad groups of "specialty areas" have been identified in our field. What do you know about them? How do they all "tie together" in our field of study? What are some facts that might be used in making sure that others know about our profession and organization?

5. My last idea is for ITAA. A concise and complete record of the history of the organization is needed, particularly for the young people entering the field. Pride in one's profession is encouraged by recognition of contributions from the past. Is there a plan to update the national history from 1981 to the present? So much has happened in the past 12 years and it should be recorded.

Individual members of our profession and organization are vital to any future we discuss --- for it is their future. So, I do encourage both dreams and expectations in any plan for the future. The challenge is to be open and creative in ways to use your knowledge from the field of textiles and apparel. And, to be flexible and open to different points of view so that you can explore new directions, renew your perspectives, and refine those traditional strengths.

I have been delighted with the "vision and reaching out" that many of you have undertaken in making use of your professional preparation and knowledge. In some cases you have "changed direction" from that of your doctoral study or previous work; in other cases you have taken a new approach for an ongoing area of focus or study. Whether the change in direction has occurred as a result of "necessity," "luck," or "rational decision," you have been creative and open to new ideas. You have had the courage to take the risks involved in change.

Changing habits or ways of doing things is difficult, regardless of the level --- global, national, professional or personal. Using an historian's examination of habit and change, Toynbee (1965, p. 30) noted that both the "head" and "heart" are involved in accepting any change that occurs --- and that anxiety arises when the two are pulling at different speeds. The "head's" pace, the intellectual and creative force, moves faster in accepting new ideas and change than the "heart," the emotional component. We know we should accept the change or new ideas, but in our heart of hearts, we are often reluctant. Successful change must be experienced in both the head and in the heart.

Ideas for needed change in the 90s and the year 2000 have been emerging --- not only here at our professional meeting but also, I'm sure, in your department and/or college. These changes are, in many cases, ones that your "head" can acknowledge and accept. However, you may need to exert extra effort to encourage your "heart" to accept the changes. The challenge that I leave with you is to be actively involved in helping to determine the needed changes, and, to commit your energies to implement them.

Our field is quite different from what it was 49 years ago. In charting our directions for the future, we recognize that change is an ongoing
force, and that a strong knowledge/research base is needed as we adapt and move forward. Have pride in your past as you move forward in charting your future directions and taking the risks of change.

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Life on campuses these days is schizophrenic at best. Recession has eroded our support, whether it is from private giving or from state support. At institutions of higher education, the multiple messages seem to directly conflict each other: 'Become a research institution-do cutting edge work, bring in grant dollars, feed into the economic development of the state versus improve teaching--the students we graduate have difficulty writing sentences and figuring percentages, they lack perspective, have a shortage of ethics, and limited problem solving skills.' And we hear our campuses say 'tenure comes with excellence in the classroom AND exemplar research efforts that are nationally and internationally recognized' - but recession, increased state costs, concurrent with taxpayer revolts have hit campuses hard.

Popular press is attacking us, books such as Prof$cam (Sykes, 1988) and Imposters in the Temple (Anderson, 1992) contribute to a public perception that teaching has declined in recent years. Consider the headline from the Sept. 8, 1992 Wall Street Journal: "What? Me Teach? I'm a Professor." Or statements that campuses are rife with "the scandalous neglect of teaching...(for) the absurd inflation of research (Smith, 1990, p. 10), and that researchers go about "busying on a vast, almost incomprehensible scale, verifying the commonplace (Smith, 1990, p.7)." Or the wide-spread belief that degrees aren't worth what they once were, because "curriculums look like they were designed by a game show host" (Sykes, 1988, p. 4), with "watered-down courses; unqualified instructors" (Sykes, 1988, p. 8), "so that education at all levels is less rigorous, while grade inflation is rampant." What we need to improve most is quality, not the number of degrees we produce.

The result is that WE FEEL UNDER-APPRECIATED. But let me share with you something you may not have considered. Campus administrators are hit with these issues too! In fact, they confront the problems before you or I know they exist. As a department chairman, I found myself constantly asking: what do THEY want now? Why? Why now? (My perspective was ...why don't they leave me alone so I can get to the issues in my department, so I can teach, so I can complete the research.) The answer is so self evident that it seems impossible to believe that we didn't know it all along. What THEY WANT is to be prepared to do tomorrow's battle for us, to answer today's critics, and to solve all the situations left over from yesterday...students, parents, staff, faculty, parking, affirmative action...and on and on.

We need to remember that administrators (including our College Dean), Trustees, Regents, Development Officers or Legislators need something to tell, to share, to answer. They don't need depth of understanding, they don't need the historical and contemporary perspective. They need cutting edge, developing, it-matters-to-supporters (taxpayers or donors) stuff. And they need big images captured in small paragraphs, the "30 second sound bite" to drop into a conversation. This translates into a reality that may not be comfortable to us - what is important is not how many students we teach, or how many hours we spend in the classroom, or how caring an advisor we are. We need to confirm that we do all that in the usual course of business; they need to know that we are essential to financial supporters. It may seem shallow and surface to us, but we need to build our image as having impact on tomorrow's issues, implementing tomorrow's technology, that we are addressing the deficiencies Bloom (1987) identified, the dearth of critical thinkers and problem solvers for the future. We must present textiles and clothing as a cutting edge field of study that addresses issues that matter, and that we engage in our teaching and research as scholars rather than practitioners and technicians. It is our responsibility to make ourselves visible.

Caution: the image we hold currently may not be in our best interest. It may be that we are perceived as marginally academic, vocational oriented, directed to a retailing industry that peripherally needs our degrees. May be we are known for producing in quantity (students and research) rather than quality. It is highly likely that decision makers in our home institutions see us as low impact and clinging to a mission that originates in our misperception of the current and future direction of our institution. Our campus may view us as committed to dealing in numbers of students and numbers of credit hours produced, rather than addressing the issues of consequence for the student and the taxpayer. If this produces a reaction of anger, then let me ask another question, Is the anger or frustration a protective mechanism of denial?

We have to get beyond denial, frustration, and being defensive. Yes, these are a part of the grief process. I speak from experience, of dealing with two attacks on us in the last five years. But, as a very wise mentor said to me, "Its past time to let go. We must define our future, not as victims, but as victors." We need to help decision
"wholes" that administrators and faculty are coping with today is the changing academic community. The three "r's" of higher education are retrenchment, reduction and reallocation. The fourth "r" is risk taking. Unit administrators and faculty should be applauded and rewarded for risk taking. We must improve quality of student experiences while engaging in ethical decisions about student grades that communicate competencies to employers and users. We must reorganize curricular offerings to do more with less, spending less time in the classroom, and more time at the other missions of the college/university. We must give visibility to these efforts, and must recognize the risk-taking as visionary, and reward it. We have to discard the outdated notion that the loss of a faculty position is a sign of failure, for today it is a hallmark of progress within the academic setting. If we see higher education as a whole, we see this as reality. It is our responsibility to find ways to make this a win-win situation for all.

This process starts with turning the mirror inward; learning to unearth our internal pictures of the world, to bring them to the surface and hold them rigorously to scrutiny. It also includes ability to carry on conversations that balance inquiry and advocacy, where people expose their own thinking make that thinking open to the influence of others. It is time that we do engage in important dialogue about the directions of our profession, including undergraduate and graduate curriculum as well as research. The allegory of the frog: Frog 1 fell into a vat of boiling water, and immediately hopped out. Frog 2 was placed into a pot of nicely comfortable water on a burner that was warming. Frog 2 adapted as the temperature increased to luxuriating, to uncomfortable, to "boiled frog." Are we adapting to becoming "boiled frog?"

Dialogue is giving up assumptions and entering into genuine thinking together. To the Greeks dia-logos meant a free-flowing meaning through a group, allowing the group to discover insights not attainable individually. Dialogue differs from the more common "discussion" which has its roots with "percussion" and "concussion," literally a heaving of ideas back and forth in a winner takes all competition (Senge, 1990, p. 10). Critical insight is when we realize that situations and hopes for improvement are inextricably tied together.

Our textiles and clothing system is bound by invisible fabrics of interrelated actions, which often take years to fully play out their effects on each other. Since we are part of that lacework ourselves, it's doubly hard to see the whole pattern of change. Instead, we tend to focus on snapshots of isolated parts of the system, and wonder why our deepest problems never seem to get solved. We need a conceptual framework, a body of knowledge and tools to make the full patterns clearer, and to help us see how to change them effectively. Deeply ingrained assumptions, generalizations, or even pictures or images influence how we understand the world and how we take action.

Please enter into dialogue. Consider what we do and why we do it. Examine the field from the perspective of the product, the users of the product, the placement of the field within the larger perspective of the academic community. We make decisions base on a snapshot, when we should make a decision based on a process or a series of vignettes, full length motion picture (Senge, 1992). The essential vision is to see relationships, not things - and patterns, not snapshots. Awareness of relationships is important in curricular review and in program delivery as well as creative and scholarly activity.

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Whether we realize it or not, we provide this answer in the choices we make as we complete the everydayness of our positions, our careers. Why do we make the curricular choices we advocate, the responses to issues, the planning of research we complete? We must recognize and examine the way we respond and the patterns of response. If we understand these patterns, then we can move beyond short-term reactivity. The deepest insight usually comes when we realize that our problems, and our hopes for improvement are inextricably tied to how we think.

The changes in the nature of knowledge and the volume of knowledge means we need to change the way we function.
makers understand our contribution to the quality of life for individuals and families. These people are a tough audience. We need to help them to be receptive to our mission and message. Its easier to sell that we are training students for the retailing industry, and students are placed within three months of graduation. But when the issues are retrenchment, reallocation, reduction, these arguments as a unit's mission are specious at best. Quality of life is hard to sell, but we can use the concrete, the need for adequate clothing to increase employment opportunities for the hard-to-employ, or the function of clothing for self-esteem in post-mastectomies are sellable concepts. Remember the short shelf-life of current issues, we must continually scan for sellable concepts.

If our faculty continue with maximum percentage of effort towards undergraduate education, yet campus administrators are addressing a research/graduate education mission, then it doesn't matter how many retreats or planning sessions we have. If the cultural environment of our unit continues to be producing large numbers of students with limited productivity in research/creative activity, then we are judged expendable. If our "public" image is characterized only by the annual fashion show, we have provided evidence to support reallocation of resources to other programs. If our curriculum includes courses in catalogues with titles "boutiques" or if we award 80% of the students with B or better grades, then we contribute to perceptions of marginal academic content, and by our actions, we support decision-makers proclivity to retrench.

The themes are common with most campuses: centrality to the present and future mission of the institution and quality of programs. For us, the issue of quality was key, with the initial proposal thwarted by accreditation. Arguments that elimination of essential consumer and family programs would threaten accreditation forced redrafting of proposals. Although we included gender equity in the discussions, two dominant themes were quality of programs and accreditation. Factors that counted were quantity and quality of research/creative activity, grantsmanship, employers testimony about characteristics of graduates, outreach/in-service training, visionary and dedicated leadership, with a theoretical framework for the College and its units, with faculty and students committed to the basis for a College of Home Economics addressing a stated mission.

We must see, from an holistic perspective, the role of our unit within the educational institution and our role as faculty contributing to the missions in education of undergraduate students, graduate students, extension clientele, and as researchers and creative artists. Quoting Senge (1990), "From a very early age, we are taught to break apart problems, to fragment the world. This apparently makes complex tasks and subjects more manageable, but we pay a hidden, enormous price. We can no longer see the consequences of our actions; we lose our intrinsic sense of connection to a larger whole. When we then try to "see the big picture" we try to reassemble the fragments in our minds, to list and organize all the pieces. We work from snapshots, rather than full length motion pictures. As physicist David Bohn says, the task is futile - similar to trying to reassemble the fragments of a broken mirror to see a true reflection. Thus, after a while, we give up trying to see the whole altogether (p. 3)."

Consider how often we fragment - we dichotomize teaching and research as conflicting efforts, attributing low performance on one as an effect of demands of the other. Campus administrators have heard this before, and they see it from the perspective of percentage of effort. If the job description is two-thirds teaching and one-third research and a faculty member works 40 hours a week or 60 hours a week, 2/3rds of the effort should go to teaching, and 1/3 to research. The current trend in performance evaluation is the quality of effort and the performance in each portion of the allocated FTE. A lament that the teaching assignment consumes all the time available is discounted, because evaluators see it as inability to manage the job description. Its not activity that counts, but productivity.

During the data coding of the study of Textiles and Clothing programs, I gained another insight into the issue of productivity. When asked to list publications, many, many campuses responded with abstracts published in ITAA Proceedings or AHEA Research Abstracts. I am concerned about what this says about us as a profession, and whether we speak the same language as our colleagues or our administrators. Are we viewing expectations for research/creative activity outcomes through myopic lenses? Consider how a chemist, an engineer, a professor of law, a professor of history views these "publications". When we use abstracts as indicative of centrality or quality of programs, we have lost the discussion before we begin. I'm afraid we are "playing with the king-pens" without fully preparing ourselves, then pointing fingers when decisions go against us.

We see budget retrenchments, reallocations and reductions from the "they don't understand us" perspective. Rather, we must understand ourselves, both from the perspective of our field of study, and from the perspective of our role in an institution of higher education. The tendency to fragment the problem - and to lose the vision of the whole can be fatal to us. Healthy organizations and healthy individuals in healthy organizations have to see the whole. One of the important
"wholes" that administrators and faculty are coping with today is the changing academic community. The three "r's" of higher education are retrenchment, reduction and reallocation. The fourth "r" is risk taking. Unit administrators and faculty should be applauded and rewarded for risk taking. We must improve quality of student experiences while engaging in ethical decisions about student grades that communicate competencies to employers and users. We must reorganize curricular offerings to do more with less, spending less time in the classroom, and more time at the other missions of the college/university. We must give visibility to these efforts, and must recognize the risk-taking as visionary, and reward it. We have to discard the outdated notion that the loss of a faculty position is a sign of failure, for today it is a hallmark of progress within the academic setting. If we see higher education as a whole, we see this as reality. It is our responsibility to find ways to make this a win-win situation for all.

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The changes in the nature of knowledge and the volume of knowledge means we need to change the way we function.
What we should be: A BODY OF THEORY AND TECHNIQUE THAT MUST BE STUDIED AND MASTERED TO BE PUT INTO PRACTICE. A DEVELOPMENTAL PATH FOR ACQUIRING CERTAIN SKILLS AND COMPETENCIES. This, of course, is a definition of a discipline. Practicing a discipline is different from emulating "a best practices model" - an ensemble of technical skills and how-to's. It is time to examine our programs of study and curricular offerings relative to the disciplinary role. A substantive definition in relation to its assumptions, aims, modes of inquiry, content and relationship to other professions, fields of study or disciplines is, in reality, a specification of its intellectual and ethical base. The future must include attention to our intellectual base and our ethical base. We must carve out our disciplinary niche.

Simultaneously, we need to formulate a conceptual framework for the body of knowledge that builds a successful graduate, a successful research program, or a successful extension program. One paradox in higher education is that we develop curriculum for the future, but we base it on the past - we add another course, rather than look at what combination of experiences will develop in the student a set of abilities necessary as a practicing professional. We must expand our understanding of our Home Economics/Human Ecology origins.

The vision includes textiles and clothing as the definitive source of knowledge of the clothing behavior of individuals and families, that textiles, clothing and apparel contributes to forming the social fabric of life through public policy, through safety, comfort and hygiene, through enhanced aesthetic experiences, and through economic development. The social, economic, and political context in which a professional operates is likely to change as much as the technical elements of professional roles. We can become leaders of social change -- with a sophistication level for scholarly study of the impact of change on communities, households and individuals, change such as NAFTA or dress codes/uniforms in public schools, or how aesthetics/fiber arts contribute to the well-being of individuals and families.

Building Shared Vision is the capacity to hold a shared picture of the future we seek to create. It involves the skills of unearthing shared "pictures of the future" that foster genuine commitment.

1. We need to be able to say we are a growth industry - growth in knowledge and its delivery. We must build on STRENGTHS as SCHOLARS in PRIORITY AREAS. We need to consider seriously academic standards for programs as a means to communicate the scholarship and quality of academic programs.

2. We need to be more effective programmatically. This may mean condensing curricular elements into more compact delivery in fewer courses that require more of students. Administration will not put resources ($) into weak programs to make them into mediocre programs. We must target positions of quality, of excellence, of productivity for our programs.

3. We must be more responsive to needs. We need to know whose needs we serve, how, where and when. If the industry does not require the training we provide, the degrees we confer, then find the clientele who needs our education. We need to develop new constituencies while retaining traditional support groups.

4. Colleges and universities are going to have to reallocate to grow. The future is reallocation, shifting dollars from low priority programs to enable new programs (biotechnology, for example) to exist. We need to be about program enhancement, redirection, efficiency of operation, because we can anticipate getting fewer and fewer hard dollars. We need to recognize that fewer faculty does not automatically mean lower quality. We need to find ways to make fewer mean more. We need to pursue external support as a matter of course.

5. This is the age of accountability. We must view our salaries and our operating dollars as donors and legislators do - as an investment. They want to see a return on their investment. We return by having impact, by making a difference, by moving beyond the concept of business as usual. We must improve visibility and communication of the accomplishments of our faculties.

Yesterday, Al Dietzel shared industry perspectives for charting the future. QUoting: "We have to change! We have to listen to the customer. We must have the ability to effect change, think small, be agile and quick." Now think about his perspective as applying to our departments and programs. "We have to change! We have to listen to the customer (student, employer). We must have the ability to effect change, think small, be agile and quick." Mr. Dietzel's challenge is appropriate: "the winners of the 90's and beyond know that change is a certainty."

THE 1992 EUROPEAN COMMUNITY’S
SINGLE MARKET - CHALLENGES FOR
U.S. RETAILERS AND APPAREL MANUFACTURERS

NARGIS SHEIKH, MARJORIE WALL,
RUTH SHELTON, and SUZANNE LOKER

In 1992, Western Europe will become a giant, single, economic superstate. Beyond the economic sphere the community expects to have tighter and more binding political and defense institutions.

The original six founding states, (France, the Federal Republic of Germany) signed the Treaty of Rome in 1957 to create a massive economy of scale. In the 1970s, the United Kingdom, Denmark and Ireland, and in 1979, the addition of Greece made this realization even stronger.

In 1985-86, two more states were accepted in the Union, Spain and Portugal, now increasing membership to twelve states.

In the economic section, more than 280 directories aimed to remove all the remaining fiscal, material, technical, legal and tax barriers among the separate states by January 1, 1993. Once this was accomplished, production costs would be lowered and economic growth would rise 4-5 percent per year after 1992. Dismantling tax frontiers, standardizing product regulations, and opening up competition became primary objectives along side reducing border posts and checks and changing labor laws into unified rules that freed individuals to pursue their economic wants within all twelve nations. A second important segment was to implement the Delors Plan of 1988, which envisioned a single central bank and single currency.

The textile and apparel industry will benefit the most from the economic integration. Seventy percent of the potential market is concentrated in four countries: Germany, Italy, France and the United Kingdom.

For American exporters to be competitive, several strategic marketing techniques will be needed. These techniques will need to be geared to the European market and to the Euroconsumer.

Implications for the US apparel exporter:
- Lower cost due to centralized buying, resulting in a reduction in the distribution cost.
- Implementation of the QR system.
- Traditional strengths have been the casual and active sportswear market - brand names, knitwear as well as intimate apparel.
- Market opportunities exist for women’s career apparel and special sizes for men’s and women’s garments.
- Unification will result in lower costs for advertising and promotion, and will increase exposure of brands.
- Production of high quality products.
- Licensing arrangements with lower labor costs producers in the EC.
- Taking advantage of the ACP (African, Caribbean and Pacific Rim) countries which qualify for preferential tariff rates and duty free entry into the EC.

A comparative study of the twelve states follows with emphasis on the textile and apparel markets and the elusive Euroconsumer. This article further analyzes opportunities for U.S. apparel manufacturers and retailers in two Eastern European countries.

The European Community comprises a large and diverse market that North American textile and apparel marketer generally know little about. While an economically unified Europe offers advantages such as easier internal flow of goods and currency, it could impede external trade although North American economies would not be seen as a serious threat, given their similar production systems and costs. Despite the push for economic union, European countries will continue to maintain many distinct characteristics due to cultural, demographic, economic and consumption differences and better understanding of these markets is needed if opportunities are to be exploited.

The four countries - The Netherlands, U.K., Belgium and Germany, are among the most similar to North America in fashion tastes and consumption patterns, generate over $80 billion in apparel sales annually (71% of U.S.) with a population of 160 million (64% of U.S.). The four countries, while exhibiting many similarities, also vary significantly in such respects as having more people over age 55, slower population growth rates, but higher per capita apparel expenditures, higher import penetration levels, and more highly concentrated retail and distribution systems than the U.S. Added to this is the economics and social strain caused by the unification of Germany and the reverberating effects throughout the EC.

Successful penetration of these markets will require astute planning. Much will hinge on the successful completion of the GATT Uruguay round and the subsequent probability of progressive trade liberalizations for textiles. Such an outcome (by no means certain), combined with an economically unified and strengthened EC (also uncertain) could provide better markets for selected North American product lines. The most likely candidates will be high value-added products differentiated by distinctive fashion and service. Dominion Textiles is
an international company with headquarters in Canada and 70 subsidiaries worldwide, including 13 in Europe. Dominion's president, Charles Hantho, believes that entry into the European market will become more and more complex and competitive. If a company has not established itself prior to unification, an alternative strategy is to form partnerships with European companies in order to gain intimate knowledge of the new market. At the very least, local agents or distributorships will be essential for North American companies to enter these markets.

Another study takes a closer look at eight of the twelve countries comprising the Single European market, they are as follows; Denmark, France, Greece, Ireland, Italy, Luxembourg, Portugal, and Spain. Of these countries, France, Italy and Spain lead in Gross National Product along with population, followed in order by Denmark, Greece, Portugal, Ireland, and Luxembourg.

In 1991, France ranked third in dollar value and fifth in millions of square meters exported to the United States. France's exports are concentrated in mannmade fibers and cotton textiles, with only marginal amounts of wool and silk blends.

Italy's gross number of exports are significant when compared to other Economic Community countries. Italy produced more intricate, sophisticated garments and more filament fabrics. Of the twelve European countries Spain ranks eighth in both millions of equivalent square meters and millions of dollars for all textile categories reported.

Denmark has not imported textiles or apparel from the United States an amount to be recorded in the past five years. Denmark ranks eighth in GNP and tenth in population of the European Community countries. Greece exported to the U.S. in 1990, 92 million dollars of textiles and apparel of which 85 million consisted of cotton goods. Portugal's exports are comprised mainly of cotton textiles, 67 million square meters, which are approximately 73% of Portugal's total meters of exports. Ireland ranks tenth in million of equivalent square meters of the twelve European Community countries, and ranks tenth in millions of dollars exported to the United States. In 1990, Luxembourg tied in second rank with Italy for total equivalent square meters, and ranked eleventh among the European Community countries with 51 million dollars of apparel and textile exports.

The Council of Ministers on the status of Single Market legislation report 80% of the directives have been adopted and more than 60% of these measures are already being applied by the member states. Full harmonization will likely be phased in progressively, as the Commission and member states work out their differences in key areas.

In summary, the EC offer interesting opportunities for North American marketers. However, as with most opportunities, there are risks.

The emerging democracies of Eastern Europe have placed new demands on the European Community (EC). Czinkota (1991) argues that the EC must take a proactive, supportive role as the countries of Eastern Europe develop into market driven economies. He concludes that if these newly emerging democracies stumble economically, the EC's future may not be ensured, even with a single market.

For U.S. apparel manufacturers and retailers, the EC's movement toward a single market occurs just as they have begun to focus on boosting economic growth through exports in the international marketplace. Using Porter's (1990) model of conditions affecting national competitive advantage, this study analyzes opportunities for U.S. apparel manufacturers and retailers in two Eastern European countries, Hungary and Czechoslovakia. The discussion proposes that these and other Eastern European countries be viewed as gateways to future trade activities in the EC.

Czinkota (1991) compares the determinants of national advantages held by the EC countries with those held by the Eastern European countries. The EC, as does the United States, has an advantage in all of the conditions except for domestic rivalry and new business formation. Eastern European countries use their domestic rivalry as an advantage in new business formation, while the EC does not. They also have advantages in human resources, knowledge resources, and capital resources (i.e., Western money is flowing into these countries at this time).

Case studies of apparel manufacturing and retail businesses operating in Hungary and Czechoslovakia are presented to describe either labor pool or consumer market opportunities in Eastern Europe. An argument is developed for the U.S. to view business activities in Hungary and Czechoslovakia and other Eastern European countries as sound economic decisions and as gateways to the EC consumer markets. Case studies include: Levi's Hungary (a joint venture), Loretta (a Hungarian entrepreneurial firm supplying J.C. Penney and Sears), Pless (a Czechoslovakian firm with Western European partners), and K-Mart (new owner of Maj, a large Czechoslovakian department store chain).

Conclusions focus on the organizations, marketing, and cultural challenges facing any company with activities in the Eastern European and EC apparel markets.
Where Will ITAA be in the Year 2000?

1991-92 Strategic Planning Committee
Linda Good, Jeanette Arbuthnot
LuAnn Gaskill, Laura Jolly
Sharron Lennon

The Futures' conferences of the 1980's acted as the catalyst for sweeping changes in the former Association of College Professors of Textiles and Clothing. As a result of those visionary exercises, the organization now has a new international structure which provides for the efficient integration and leadership for a diverse membership. To accompany that new structure, and more clearly reflect the global mission of the organization, the name change to International Textile and Apparel Association (ITAA) also resulted from the visionary planning.

ITAA must now posture itself for the year 2000 and beyond. The Strategic Planning committee has worked for the last year conducting an environmental assessment to identify current strengths, weaknesses, opportunities, and threats (SWOT) to the organization and profession at large. The purpose of the Special Topics session was to bring the committee's thoughts concerning SWOT's before a larger portion of the membership in order to get feedback and encourage the infusion of new ideas. In addition, the SWOT's should aid in the development of strategies which ITAA and its members could implement.

Strategic Planning committee members introduced each of the environmental factors, providing the current assessment of the factor for ITAA, followed by strategy suggestions. Members sat in groups of eight to begin generating strategies for each of the four environmental factors. At the end of the 90-minute session, the committee conducted a wrap-up.

Listed below are a sampling of themes identified for each environmental assessment factor:

- **Strengths:** Conferences, programs, people, resources
- **Weaknesses:** Vulnerability, focus/prioritization, resource limitations
- **Opportunities:** Funding, networking, program leadership, research leadership, member development, futuring
- **Threats:** Program survival, membership base, member needs/diversity, curriculum needs

Members were active in a proactive process to think through strategies ITAA might use to enhance strengths, turn opportunities into strengths and to overcome weaknesses and threats.
This session was proposed by the NCR-65 committee titled: Clothing Production, Distribution and Consumption. This committee is responsible for serving as a catalyst to exchange scientific ideas, to identify research and funding opportunities, and to set directions for research and theory development related to clothing and textile production, distribution and consumption. This session is a continuation of the agenda that was initiated by Mary Don Peterson and Marilyn DeLong in 1989 meeting held in Atlanta, and the 1990 special topic session on Research Trends for Future under the leadership of Richard Feinberg and Marilyn DeLong. In 1991 the sponsored Special Topic session included presentations by member university professionals of NCR-65 entitled, "Societal Issues of the 21st Century: The Researcher's Responsibility for Making and Impact" that was coordinated by Usha Chowdhary, Rita Kean, and Mary Lynn Damhorst. The presenters discussed quality of research in textiles and clothing with policy implications, role of extension in disseminating information and consulting for industry. A kind of Land Grant Mission was reflected through the special topic session.

This year's session was an outcome of the ten issues outlined by the ITAA professionals in 1990 meeting. The issues of "Resource use and waste material" and "Globalization of economy" ranked third and fourth on the priority list. The two issues were addressed by panelists from waste reduction, recycling, recomposing, and reusing standpoints to help economy and foster effective use of skills and techniques from the participating developed and developing countries.

**Use of Plastics for Making Nonwovens**

Dr. Nancy Fair from University of Tennessee addressed the issues involved in recycling of plastics and in the development of degradable materials. Dr. Fair noted that plastics have become a very important commodity in our country, with nearly sixty billion pounds of plastic resins consumed each year. The single largest use of plastics is in packaging. Recently, plastics have become focal point for environmental concern. These materials contribute unsightly litter throughout the environment, urban and rural, and they have long lives in the environments in which they are disposed. Plastics have been estimated to account for 6-8% of the materials in municipal solid waste, but because of their low density it is estimated that they make up from 20-30 percent of the volume of the solid waste. Consequently, there is considerable interest in recycling plastics and in the development of degradable plastics.

Dr. Fair talked about reduction, incineration, recycling, and development of biodegradable materials as the possible solutions to the problem. Recycling, reduction, reuse, recomposition were recommended as possible techniques to accomplish the proposed goal. Dr. Fair also outlined economics, uncertain laws, unwanted colors and odors, equipment conversion costs, contamination, and reduced physical properties as some of the concerns with post consumer that warrants further research to respond to the raised concerns.

**The Solid Waste Problem: A Case Study of Vermont**

Dr. Suzanne Loker described the solid waste problem with packaging and the role of apparel retailers in its use, reuse, recycling, and
recomposition. Dr. Loker mentioned that as a small environmentally-conscious state, Vermont is leading many other states in defining and addressing the solid waste problem. She presented three programs to illustrate opportunities and challenges for clothing and textiles professionals --teachers, students, and business-persons. A summary of her report is presented below.

Vermont Student Environmental Program (VSTEP) continues to be the driving force behind the University of Vermont's solid waste program. Implementation at this point includes source reduction through purchasing decisions; recycling programs for cardboard, white and colored paper, magazines, bottles, and cans; reuse of paper and cardboard, and reinking of printer ribbons and computer cartridges. The newest market for the unrecyclable paper is the University farm where it is cut into small pieces and used as animal bedding, the paper and manure are then composted and turned over into field soil.

The Burlington Business Recycling Program was initiated in July 1991 that focuses on the recycling concept. Reuse of shipping boxes is another way to reduce waste and observe change to an effective behavior.

The Vermont Legislature has proposed the Wrap Act to comprehensively address the packaging problem. Specific requirements of the act include:
* made from at least 50% recyclable materials AND
* made from materials actually recycled at a high level in Vermont OR
* routinely reused by individuals or businesses.

Dr. Loker concluded by indicating the need to reduce solid waste by apparel manufacturers and retailers and to introduce specific practices to accomplish this goal. Dr. Loker also recommended that the ITAA members should be encouraged to set an environmentally-conscious tone in their classroom so that the next generation of retailers and wholesaler's offer a living example of practising savers for the companies that they would work.

**Green Cotton: A Move Toward Environmentalism In Apparel and Textile Manufacturing**

Lynn Wilson also from University of Vermont talked about "Green Cotton", "Foxfibre", and "Ecofibre". Ms. Wilson noted that designers are incorporating environmentally-safe practices and philosophies into their designing. She offered the example of Patagonia that has scaled down its collection and encouraged consumers to purchase fewer items. For example, the company reduced the styles of ski-pants from five to two. The panelist quoted the president of Patagonia Yvon Chouinard who advocated the stop on growth. He said, "We think that the future of clothing will be less is more, a few good clothes that will last a long time." This is radical departure from the typical philosophy to produce and sell more.

Lynn Wilson cited Ardent Ltd., Costa Mesa, CA and Greencotton available through Seventh Generation, a retail and mail order company based in Colchester in Vermont as two examples. Available products included both clothing and home furnishings. Foxfibre, a trademarked fiber from the Natural Cotton Colors Inc. of Somi Valley, CA is available in shades of green and brown. Both Levis and Espirit are using it in their collections.
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Eco Fibre of Niagra-on-the-Lake, Ontario is producing shirts of recycled wool, synthetic and cotton fibers. The jersey knits from recycled materials are used for T-shirts. The company has contacted the university of Vermont for licensing program to print university's logo on their T-shirts.

Lynn ended her presentation with several questions. For example, How can companies go about this direction? Will consumers be receptive? Are they willing to pay the price and will they search for the items they want or will they give up trying? Are the quality and durability going to direct apparel manufacturers, retailers and consumers?

A Product Development Model for Balancing Artisans' Indigenous Labor Patterns, Importer Specifications, and Consumer Preferences

Marsha A. Casselman and Mary A. Littrell from the Iowa State University reported that craft production is second to agriculture as the most important source of income in the technologically developing world. Within the fiber media, crafts include both household textiles (table linens, wall hangings, rugs) and apparel (shirts, jackets, dresses, bags). In Guatemala, as well as other developing countries, the economic viability of craft production is uncertain but of immense importance. Local markets for crafts have declined drastically, income alternatives for craft artisans are limited, and political conflicts have left many widows and orphans who do not have other income generating activities.

The goal of their multi-phase project in progress was to develop a model for product development of textile and apparel crafts that achieves three-way balance among the cultural needs and labor patterns of rural artisans, importer specifications that lead to new technologies for mass production for exporters, and the product and design preferences of U.S. consumers.

The panelists reported their findings from current experiences with members of Guatemalan cooperatives through field research. Their work from a case study of an importer/distributor with whom the Guatemalan cooperatives work illustrated that improved economic conditions and human environment that have resulted for craft producers who are successfully exporting products to the U.S. Their research offered a good example of how textile and apparel researchers can facilitate further improvement in economic development and human environment through assistance in business skills, visual display, and manufacturing technology.

The responses to open-ended questions (only two completed) reinforced the need for involvement of the textile and apparel professionals in the areas of waste management, becoming environmentally-conscious, reducing waste, recycling polymers, composting organic waste, creating energy from waste material, and reusing textile products.
INVESTING IN OUR FUTURE - AN ASSESSMENT OF TEXTILES AND CLOTHING ACADEMIC PROGRAMS IN THE UNITED STATES

Rita Kean, University of Nebraska-Lincoln, Lincoln, NE, 68583-0802
Joan Laughlin, University of Nebraska-Lincoln, Lincoln, NE 68583-0802
Grace Kunz, Iowa State University, Ames, IA 50011-1120
Karen Ringenberg, University of Nebraska at Kearney, Kearney, NE 68849
Sonia Meyer, University of Wyoming, Laramie, WY 82071

Textiles and Clothing programs are viewed by decision-makers and stake-holders as 1) important and critical programs or 2) as programs that are not fulfilling their potential. The changing environment of higher education is forcing unit administrators and systems executive officers to seek better information and justification for textile and clothing programs. It is imperative that a proactive position be taken by all textiles and clothing units before others identify the needed change for the units.

The purposes of this special topic session were threefold: 1) to report findings of the Laughlin assessment of textiles and clothing four year programs across the county; 2) to hear panelists responses to pre-determined questions, and 3) to engage in active dialogue among session participants.

Laughlin Assessment. Data were first gathered in 1990 and again, in 1991 from home economics units who reported that they had a specifically defined textiles and clothing (T & C) program. Unit administrators were asked to report T & C enrollment on the 12th class day of the Fall semester, using the Office of Educational Research, national Center for Education Statistics Classification of Instructional Programs (CIP) categories for classifications of specializations and subspecializations of home economics educational program. It is important to note the reporting system has changed. Unless programs are reported as T & C, student enrollment is classified under other categories. Thus, students majoring in Fashion Design are counted under Visual and Performing Arts, Merchandising majors under Business. The objectives of the Laughlin study were to identify elements held in common and central to four-year academic programs in T & C. Unit administrators were requested to complete a questionnaire. From a listing of 46 curricular elements, respondents indicated 1) if the element was part of the current curriculum, 2) the expected level of students' competency (awareness, understanding, competency) and 3) future directions the curriculum should take, assuming resources remain stable (drop, less, some, more).

Factor analysis was chosen for data analysis. In all cases, variables used to describe and name each factor were those loading at least .60 on the factor and loading less than .30 on all other factors and had eigenvalues of 1.0 or greater. Only those factors with three or more items loaded are reported. There were 13 factors associated with Current Curricula Elements. The factors accounted for 33.3% of the variance. Competency levels were also factor analyzed. An 11 factor solution accounted for 42% of the variance. There were 13 factors generated for Future Directions, which explained about 38% of the variance. Of particular interest in this category is the number of curricular elements checked as drop (n=19), or offered more in the future (n=1152), assuming stable resources. Curricular elements believed to be important for the future in T & C are Critical Thinking, Value Systems, Statistics, Psychographic, and Demographics. The commonality among these elements are less emphasis or current facts, how-to's and technical skills, and more emphasis on broad-based education, analytical thinking and synthetic thinking.

Each panel member was sent results of the data prior to the meeting and assigned a specific question.

Karen Ringenberg, What do these data tell us about who is educating our students? A number of additional questions are raised as attention is centered on the faculty. First, two-thirds (62%) of the units responding to the questionnaire are characterized as small relative to faculty size. What
impact does this have on a student’s educational experience? Should members of the International Textile and Apparel Association be concerned about the predominance of small programs? In small programs, what percentage of the courses are taught by a single individual? Are faculty teaching courses that they have never had themselves as a student? Are there courses in the curriculum that no faculty member really wants to teach? What does that tell us about those courses? If the respondents of the study indicated that additional curriculum elements should be added to the curriculum in the future, who will teach those additions? Second, on the basis of rank, the data illustrate the large numbers of faculty clustered at the assistant and associate professor levels (232 assistant, 199 associate) with 129 faculty at the rank of full professor. Do the number of non-tenured faculty contribute to the vulnerability of clothing and textiles programs? What opportunities exist to mentor junior faculty within the higher education environment or ITAA? What is the role of publications in rank and tenure decisions? Approximately 80% of the respondents (primarily administrators) evaluated the importance of publications in promotion decisions as important to extremely important. Similarly, 72% of the respondents illuminated the importance of publications for tenure decisions. Are there additional avenues for ITAA to consider to assist faculty with promotion and tenure criteria? Answering the questions “who is educating our students” is not easy. The results of the study tend to highlight more questions than answers.

Grace Kunz. How Are we positioned for the future in T & C program? Two factors are imperative as we look to the future of the textile and apparel programs: financial crisis and integration. Both the apparel industry and education are in state of financial crisis. Advertising and promotion by apparel unions and by the Made-in-America campaign result in high visibility of a very negative image of the apparel business. Apparel production has not declined in the United States. Employment in apparel production has declined, however. Thus, present employees are more productive than their predecessors. Textiles and apparel is a $150 billion business in the U.S. Compared to that, our 12,000 merchandising students are pretty insignificant if the potential employees know about our students. Integration is very evident in the apparel business and is being called for in higher education. Campus wide there are too many majors, too many courses, too much duplication of content, too many overlapping career options from different majors, and too many advanced courses that are introductory level subject matter or repetitious of introductory courses. To solve these problems in textiles and clothing, we must reconceptualize the subject matter to reflect the integration of the industry that we serve. We must use analysis and discovery in our teaching methods to achieve higher levels of learning in our classes.

Sonia Meyer. Are we educating too many merchandising students at the undergraduate level? If yes, why? If no, why not?

Yes and No! 77% of T & C students (n=12,000) are identified as merchandise majors. It is easy to become comfortable with that large enrollment, even though there is a 10% nationwide decline in enrollment. A critical issue is how do we help those programs with one faculty and less than 25 students enrolled? On the other hand, large numbers speak to decision makers, there is a high placement rate among graduates, we provide students with transferrable skills.
AN EXAMINATION OF THE ISSUES RELATED TO ITAA ACCREDITATION

Carol Avery, Florida State University  
Joy Bostrum, University of North Dakota  
Marilyn DeLong, University of Minnesota  
Kitty Dickerson, Missouri University  
Coordinated and summarized by Betty Feather, University of North Carolina

This panel examined the issues and alternatives related to ITAA accreditation. Tortora introduced background information; Dickerson, Bostrum and Kunz provided alternatives to association accreditation within other organizations; and administrative perspectives were shared by Dean Schultz and Department Chair Avery. Views were offered by DeLong, representative of a large public university and Fortenberry, a small private university.

Advantages and disadvantages of accreditation

Tortora stated that ITAA could develop a full-fledged accreditation program. However, for this to occur ITAA itself must be accredited. The body that accredits organizations is known as COPA, the Council on Professional Accreditation. ITAA would need to prepare and submit a self study; which would include the need for accreditation, standards or criteria and plans for financing and management of the process. If COPA approved, a site visit would occur and accreditation would or would not be granted. The advantage of accreditation is that it has the greatest protection and clout. Disadvantages are cost for infrastructure, time to develop criteria and procedure, and current attitudes toward the proliferation of accreditation by COPA and many universities.

An approved program process such as the American Dietetic Association (ADA) is an alternative. No approval by COPA is necessary. The association develops its own standards and criteria. Units seeking approval submit a self study, are reviewed and if approved, are listed in a directory. Standards and infrastructure need to be developed and sufficient funds provided for the review process as well as training the reviewers. Advantages include less cost, less time to develop and more flexibility than accreditation. The disadvantage is—is approval enough? The approval process is still costly and time consuming.

Alternative organizations that accredit or provide approval

Dickerson offered an alternative accreditation by the Textile Institute (TI). In the early 1980s, TI established an international accreditation system in which a national panel in each country reviewed academic programs that desired consideration. An ad hoc panel reviews documentation on the institution's curriculum, makes site visits, and determines if the program warrants accreditation. Currently, more than 24 universities and colleges in 12 countries have been approved. In the past, TI primarily had a textile science orientation, now they are encouraging colleges with programs in apparel or retailing/distribution to apply for accreditation.

The American Home Economics Association (AHEA) could offer an alternative to ITAA accreditation according to Bostrum. A recent ad hoc committee investigated the feasibility of accreditation for specialized subject areas. When AHEA accredits a unit, individual programs will be evaluated for endorsement. If these programs adequately meet the criteria in standard four and accreditation is granted to the unit, the unit could be described as "accredited." Endorsement may be granted without accreditation. For endorsement of the specialization, a peer review evaluation process will be conducted by a special team of three reviewers. They will be responsible for evaluation of the self study material in standard four which will be submitted for consideration to the Council for Accreditation. This endorsement process is only a recommendation at this point. If ITAA is interested we should contact the Agency Member Unit of AHEA.

The American Apparel Manufacturers Association (AAMA) does not grant academic accreditation states Kunz. AAMA is comprised of 22 committees, the most common academic participation is in the Research and Education Committees. AAMA Education Committee consists of manufacturer members, associate members (vendors), and educators. The Committee has established a ratio of member types. It is unlikely that the number of educators will increase greatly. Academic affiliation is gained through program endorsement. There are four factors involved to gain endorsement: (1) building credibility in the apparel industry sector and with AAMA Education Committee; (2) sending a department representative to semi-annual Education Committee meetings; (3) having a firm that is a member of Education Committee recommend the school for affiliation; (4) have the school's academic program approved by the Education Committee. The AAMA Education Committee has eight or nine
affiliated institutions which were gained through program endorsement.

Administrative perspectives on accreditation

Dean Schultz of the College of Human Ecology at the Ohio State University indicated that the 1980s witnessed concerns about the quality of higher education. Internal forces impacting higher education included an increasing emphasis on general studies, the need for programs to accommodate a rapidly changing world, and refinements in academic program review strategies. External forces included society’s increasing interest and call for educational quality, a diminishing resource base, and a concern that higher education is not being held accountable. Accreditation began to receive disapproving remarks for its excessive structure, being too prescriptive, and proposing barriers to liberal learning.

Dinham and Evans (1991) questioned whether accreditation qualified as significant evidence of regular, informative, and useful undergraduate program assessment. Instead, accountability was used to signify institutional reporting to satisfy external agencies which may not reflect the criteria of the local program. Dinham and Evans’ research suggests that while accreditation might provide information about students, the institution, and student accomplishments, nowhere is the information coordinated to yield the type of information sought by comprehensive assessment.

Dean Schultz asked what are the implications for accreditation for Colleges of Human Ecology? Accreditation is closely tied to state licensure requirements, such as FIDER, ADA, and NCATE. To consider accreditation where licensure is not required would not be viable in today’s university. Research universities have developed academic program reviews that address undergraduate education, graduate education, and research. These reviews involve a self study, an external team visit, and recommendations for program improvement. The one area that ITAA might wish to consider is the development of standards or criteria for quality programs in textiles and apparel. These could be used to guide academic program reviews and provide guidelines for program improvement through the self study and academic program review process.

From the perspective of the Department Chair, Avery said before any decision is made, the issue needs careful consideration and a well conceived plan. Avery pointed out that a well constructed accreditation system could strengthen clothing and textile programs by providing standards and criteria, a more focused mission and purpose, better conceptual framework, and a stronger theoretical base. It is or could be a powerful tool for obtaining additional resources from the university.

However, Avery commented that there are many negatives associated with accreditation. First, while many see it as providing protection against budget cuts, eliminations, and dismantling of programs, there are no guarantees. Programs that can not, or do not, become accredited will be in greater danger of elimination. Second, many universities have indicated they cannot afford the accreditation process. Third, the process is costly in faculty and administrative time. Accreditation may lead to loss of flexibility with overemphasis on uniformity by disregarding different philosophies, and program orientations.

Views from different size and type of institutions

Fortenberry shared the perspective of a private institution whose Department of Design and Fashion in 1984 became housed in College of Arts and Science. The design component of the department continues to be accredited by FIDER and administration is monetarily supportive of the annual dues and site visit costs. During the accreditation of the university, Fortenberry found that programs that were nationally accredited were rated excellent and necessary to fulfill the university mission. She noted that the Fashion Design, Merchandising and Promotion programs were not well understood by administrators. Therefore faculty are developing strategies related to curriculum by seeking input from an external Advisory Board. She thinks that a full-fledged accreditation would provide the needed standards, guidelines and program legitimization.

DeLong stated a large research university in promoting graduate education must be concerned about reputation and excellence. Currently the University of Minnesota has the freedom to develop unique, focused programs relevant to changing societal conditions and events. With universities across the country operating with limited resources, we need the flexibility and creativity to develop program specializations. DeLong believes that accreditation would not change very much at a large research university. The process of accreditation is a lengthy and costly one. Examining the motives for accreditation we must ask the question: Is accreditation primarily self serving or does it benefit the public? Unless we believe our motive is primarily to benefit the public, we need to think about other alternatives. One which would promote excellence is that of developing and promoting voluntary standards with a self study program to encourage direction and consistency.

TEXTILE ANALYTICAL TECHNIQUES: A METHODOLOGICAL UPDATE FOR THE HISTORIC, ARCHAEOLOGICAL, AND TEXTILE SCIENCE RESEARCH AREAS

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This special topics session consisted of three presentations dealing with instrumental methods of analysis of textile fibers and fabrics. The techniques described were infrared, visible, and Raman microspectroscopy, energy dispersive x-ray microanalysis, and colorimetry by means of a portable spectrophotometer.

Dr. J. E. Katon addressed the nondestructive analysis of dyed single textile fibers by microspectroscopy. The coupling of an optical microscope with a visible or infrared spectrometer offers new, powerful techniques for the nondestructive analysis of single fibers. The sample size required is less than a micrometer in diameter in visible, fluorescence, and Raman methods; infrared absorption requires a sample of about five micrometers in diameter. The minimum quantity required is in the picogram range for infrared, less for the other three methods. Electronic methods (visible and fluorescence) have better detection limits than vibrational methods (infrared and Raman) but their selectivity is poor. Infrared is generally preferred over Raman for experimental, economic, and safety reasons.

Some important modifications are made in the use of an optical microscope in conjunction with an infrared spectrometer. Since glass does not transmit infrared radiation throughout the region of interest, the optical elements are all reflecting instead of refracting. Two field stops allow the operator to optically isolate the sample of interest by matched field illumination. The microscope is covered with a purge shroud to allow the entire system to be purged with dry nitrogen.

In contrast to the infrared system, visible absorption, fluorescence, and Raman spectroscopy are all carried out in the visible region and so a normal refracting microscope can be used. In normal Raman operation the laser beam passes down through one of the microscope's objectives and is focused on the sample. The scattered light (Raman spectrum) is collected by the same objective and, after being dispersed by the monochromator, it is sent to the detector, a photomultiplier tube. To use the same instrument as a visible absorption spectrometer, an adjustable field stop is placed between the white light source and the sample and the transmitted light is passed on to the monochromator and detector. Use of a FT-Raman system which utilizes a near infrared laser eliminates most of the problem of fluorescence of dyed fibers.

With respect to textiles, the Molecular Microspectroscopy Laboratory at Miami University has worked primarily with archaeological fibers. Being proteinaceous or cellulosic in nature, these fibers have strong infrared spectra and are weak scatterers in the Raman. One might expect, therefore, to observe more interference from the fiber in the infrared spectrum than in the Raman spectrum. The natural fibers are usually only slightly absorbent in the visible region, making background correction quite simple. In the case of archaeological fibers which have lost some of their identifying surface morphologies, the chemical constitution can be deduced from infrared spectra. The infrared absorption spectra also can be used to discern dye composition, although corroboration by the visible absorption spectra is sometimes necessary because dyes are present in fibers at levels between 0.1 and 1.0% and the fibers possess such strong infrared absorptions. Visible spectra are not good for dye identification because visible absorption is not a highly selective technique. Using the two together increases confidence in the identification of dye.

Raman spectrometry is being explored because it is a very selective technique. This method suffers in that the laser frequency often excites fluorescence in dyes or impurities present. A solution to this problem appears to be the use of a laser frequency in the infrared. This beam is not sufficiently energetic to cause electronic absorption, which is necessary for fluorescence. Studies continue in the identification of dyes in single fibers by their Raman spectra.

The combination of energy dispersive X-ray microanalysis spectrometry (EDS) with scanning electron microscopy provides a precise, reliable, quantitative method for the determination of elemental composition of single textile fibers. J.C. Mitchell described the principle of EDS which is based on the fact that when the incident electron beam of the microscope strikes the surface of a sample, electrons interact with atoms in the sample matrix. In the event of a near collision between the electron and a sample
atom, the electron passes through the columbia field surrounding the atom, and is decelerated and scattered. The energy released in this 'slowing' of the primary beam is given off at all energies, hence it forms a continuum known as the Bremsstrahlung radiation signal. The major effect of this signal is to form a background to the spectrum, which ultimately limits the precision of the technique.

In addition to Bremsstrahlung radiation, there is the possibility that the primary electron beam will directly strike the sample atom and, if the beam has sufficient energy, liberate an inner shell electron from its orbital. Electrons exist in discrete shell and subshell orbitals around the nucleus of the atom. In the atom, each of these shells has a characteristic energy associated with it. This is the discrete quantum of energy needed to keep the electron in its orbital. This ejection results in an excited state ion which will return to its ground state by moving an outer shell electron (which is more energetic) to fill the inner shell vacancy created during the collision. In doing this, however, it must release an amount of energy equal to the difference between the electron shell energy it originally occupied and its final less energetic state. This energy is given up as electromagnetic radiation, in the case of these high energy transitions, as X-rays. Since the energy of the X-ray depends on the difference in orbital energy, these X-rays can be used to identify the atom from which they originated.

By comparing the observed X-ray intensities of an unknown sample to a sample with known concentration, one can form an 'apparent' concentration ratio. This ratio must be corrected for inter-atomic effects in order to produce an estimate of the original peak intensities, which is related to the true elemental concentration of the sample.

The minimum detection level (MDL) EDS is 0.1 - 1.0 Wt. %, its precision is 1-3 %, and its dynamic range is from the MDL to 100%. All this in a typical volume of 1-3 um³, non-destructively, in under two minutes! With the additional capabilities of an ultra thin window, or a windowless detector elements as small in atomic number as 4 can be quantitatively detected. The potential of elemental analysis of small areas of single fibers is endless in scope.

In the last presentation of the special topics session, Dr. M.E. Swinker addressed the problems a historian faces in the examination of textiles in a museum environment. Because museums are rarely equipped with laboratory facilities, the historian must improvise in order to provide the appropriate environment for the examination of textiles and assessment of their color. The standard procedure for the assessment of the color of textiles in the field entails the use of a color chip system such as the Pantone or Munsell system. The researcher compares the textile to colored chips with graduated differences in hue, value, and intensity. Numerical codes define the color's position within a color space. Because the viewing environment can influence the observer's evaluation of color, attempts must be made by the analyst to control the illumination and viewing conditions. At best, however, these evaluations are subjective and are dependent on the visual appraisal of the observer. Differences between observers are not taken into account. Attempts in the field to control viewing conditions employed in research have included the use of a standard gray surface for backing the textile samples, two 250 watt daylight lamps positioned at 45 degree angles from the textiles and eight inches from the platform, and observations made by the evaluator two feet directly above the textiles in a line of sight perpendicular to the fragment. Some difficulties arose with this evaluation which led to the use of a more objective approach, i.e., the use of the Hunterlab MiniScan Spectrocolorimeter version MS/S 4500L. This portable spectrocolorimeter weighs 4 pounds, is battery operated, and provides viewing areas of 3.5 mm or 25 mm. The viewing geometry can be chosen between 45 degrees illumination and 0 degrees viewing or diffuse illumination and 8 degrees viewing. Four color scales are available: 1.) XYZ, 2.) Yxy, 3.) Hunter Lab and 4.) CIE L*, a*, b*. In addition, the MiniScan reports Brightness, Whiteness, and Yellowness Indices. Tolerance limits for shade differences can be set and the MiniScan will display a PASS or FAIL message. Five illuminants are available: Incandescent, Average Daylight, Daylight (D65), Cool White Flourescent, and Flourescent. Up to 25 readings can be averaged and data can be output to a printer or computer.

Research in the evaluation of color of Harmonist silk textiles employing the MiniScan was described. The consistency L, a, b values of these textiles reflect a precision in dyeing methods used by the Harmonists.

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NATURALISTIC RESEARCH: OPPORTUNITIES AND CHALLENGES

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"Describing Naturalistic Research"
Mary A. Littrell

Naturalistic research, relatively new to the field of textiles and apparel, offers exciting opportunities to explore meanings for how individuals and groups design, produce, market, and use textiles and apparel. When is a naturalistic approach appropriate in research? To answer that question I begin by identifying some of the types of research questions that lend themselves to the creative search for meaning which the approach encourages. These questions address: How does behavior unfold, progress, and change over time? What does it mean to behave in a particular way? Why does behavior evolve in one way and not another? In answering each of these questions we seek to understand the dynamics of behavior from the insider's perspective. We're particularly interested in the range of reactions or meanings related to a topic rather than how often a particular behavior takes place. We're interesting in tapping how insiders view and conceptualize their worlds using their own language (Lincoln & Guba, 1985).

Naturalistic researchers, as all researchers, begin their investigations with thorough grounding in existing theory and literature on the topic under study. Theoretical foundations serve as points of departure for our studies (Schouten, 1991). Not infrequently, research questions and variables change and evolve as the research unfolds and as preliminary data analysis begins in the field.

Research participants are chosen in a purposive manner in order to describe multiple realities based on an array of life experiences. Maximum variation, rather than control, is sought on human and contextual variables thought to bear on the topic under study. Research is conducted in the field or home base to the informants, a site rich in stimuli and meaning that are integral to the conversations, interviews, and events that serve as sources for data. The researcher as the human instrument is often interviewer, observer, participant, and analyzer simultaneously. Multiple methods of participant observation, depth interviewing, focus groups, document analysis, and case studies are employed in order to ferret out overlapping sources of evidence on research topics.

The researcher returns home with a mass of mostly verbal data which often seem overwhelming in amount and complexity. Various types and levels of analysis are employed to generate concepts, meanings, explanations, and stories grounded in the lives of those we study. As researchers, our challenge is to describe personal rationality in ways that honors the richness of human experience.

"The Iconoclastic Graduate Student Meets the Great Cosmic Muffin: An Allegory Based, Unfortunately, on Far More Truth Than Fiction"
(With apologies to Shelly, Hendra, and all deserving others)
Jean Hamilton

Susan, a bright but frustrated graduate student, fell asleep. As she began to dream she found herself in the presence of The Great Cosmic Muffin of postmodern social research. "Why do you risk making trouble for yourself by asking your professors so many uncomfortable questions?" he asked her. "Because so many things just don't make sense to me," Susan replied. "Like what?" queried The Great Muffin. "Well, in the first place, they just assume that our research will test some existing theory by using some questionnaire, and that we will analyze the data statistically. I asked where theory comes from in the first place, and if all researchers ever do is test it, how does anybody every develop new theory. My professor said that you revealed it, but I didn't believe her. Then, at a public debate on positivism and naturalism in social research, the pro-positivist debater admitted there were all kinds of research questions that his approach simply could not address, but that didn't seem to bother him at all. Later, I was told that the faculty really think they are doing us graduate students a big favor since churning out mounds of articles quickly is how a new faculty member gets tenure, and that the churning is more efficient if you restrict yourself to answering research questions that focus on WHAT is, rather the WHY what is, is. I also heard that some people think that a positivism-deductive approach..."
seems somehow more scientific than a naturalistic-inductive one."

"Last week in class we were supposed to discuss an article in which the researcher's goal was to understand WHY people behaved a certain way, but the questionnaire contained only statements about WHAT they did and thought, not WHY they did or thought what they did. I said I thought that the only way to discover explanation, or WHY, was to approach that question inductively and talk to informants about it. My professor came unglued. 'You iconoclastic little upstart,' she shrieked! She railed on: Who did I think I was to take issue with an established researcher, and perhaps I should reconsider why I was in graduate school in the first place! I've been thinking of quitting school and looking for a job.'"

The Great Cosmic Muffin smiled a compassionate smile. "I don't give revealed theory to anybody," he said. "I work hard at it, and I often have to regroup, and rethink, and start again. All of that takes time. So while quick and dirty might be good politics, it is rarely good scholarship. You are right," he continued, "to raise the questions you have asked. You are right that the best approach depends on what research question is asked. And, you are right to worry about the state of scholarly understanding of social life if only one approach to getting that understanding is tolerated by an entire field. So please, Susan, don't stop now. If you can't find someone here to work with, go someplace where you can, but please, don't stop!"

"Using Naturalistic Approaches in Textiles and Apparel Research"
Mary Lynn Damhorst

Naturalistic research methods can be adopted to study virtually any topic in any subject matter area of textiles and clothing when human behavior is at least indirectly related to the problem. Human attitudes and feelings, organizations, products, and behavior can all be studied from naturalistic perspectives. In addition, the researcher need not take some holy oath of naturalism and forever hence scorn positivistic and deductive methods. Naturalistic approaches may be incorporated at any stage of the research process. A critical relativistic standpoint suggests that a variety of approaches may be combined in any study when those approaches fit the research objectives. Many researchers may be surprised that they already incorporate some naturalistic components in positivistic research. Some examples for various stages of the research process include:

**Stimulus Development:** A grounding of stimuli in, for example, what fibers are available to consumers or what styles are fashionable in a particular season lends confidence that relevant objects are presented to respondents. Buckley (1983) developed stimulus appearances for a person perception study from observations of campus dress observed by students.

**Instrument Development:** Focus groups, interviews with key informants, and content analysis of popular media may help in selection of wording and relevant concepts for incorporation in questionnaires or structured interviews. Fitting wording to the population studied is essential for development of valid measures. Richins (1991) spoke with focus groups to help in preparation of a questionnaire to measure college women's comparison of self to women in fashion advertisements.

**Sampling of Human Subjects:** Purposive sampling is sometimes necessary to access a subculture of people who are difficult to find other than by going "out in the field" to places the group frequents. In addition, it may enhance validity to study individuals immediately involved in the behavior of interest. Nonrandom store intercept surveys and interviews are often conducted to study consumers at the actual point of purchase (e.g., Eckman, Damhorst, & Kadolph, 1990). Related to this issue is the historian's quest to find extant photographs, garments, or other records that will give information about what people were actually wearing in times past.

**Data Collection and Analysis of Data:** Naturalistic data may include qualitative observations, visual or verbal content of media, written accounts, stories, and open-ended answers from respondents. Damhorst (1984-1985) recorded stories business employees told about pictures of people in office settings. Variations of clothing in the pictures were experimentally controlled, but the open-ended verbal data collection process allowed respondents to choose their own wording and dimensions of response. A grounded theory approach was used to let themes emerge from the data; these themes were formalized into codes for systematic content analysis that could be statistically analyzed. The combination of controlled stimuli and natural language data lent itself to a variety of approaches to analysis of the wealth of responses collected.

Multivariate statistics facilitate inductive exploration of patterns in data. Slaybaugh, Littrell, and Farrell-Beck (1990) used cluster
analysis on qualitative interview data to develop profiles of diverse types of consumers of Hmong textiles. Techniques such as factor analysis, principal components, and multidimensional scaling are useful for inductive exploration of patterns in quantitative data. The inductive statistics fit the spirit of naturalistic scholarship in that they enable exploration of the cognitive structures that respondents, rather than researchers, bring to research task.

**Validity Testing:** Qualitative data that mirrors quantitative measures can help in determination of external validity of measures. If both types of data show similar directions in responses, confidence increases that the quantitative measure actually measures what was intended. Casselman and Damhorst (in press) used interview responses to check validity of interests in dress scales. DeLong and Minshall (1988) used several types of quantitative and qualitative data to develop depth in understanding of perceivers' categorizations of forms of dress.

A richness of "reality" is afforded by incorporation of naturalistic approaches at any stage of the research process. Naturalistic approaches ensure validity, sometimes at the expense of control or reliability, but the gain in realism of data outweighs any slight reduction in reproducibility. Since human behavior will never be as precisely predictable as behavior of dye molecules or tensile strength of yarns, the gain in validity afforded through naturalistic approaches should be more seriously considered by scientists for substantial benefits in the study of human phenomenon. Many of us have been well schooled, even brainwashed, in the magical and comforting formulas of deductive positivism. Let us recognize that there are many ways to seek answers to any question. The more ways we seek evidence, both quantitative and qualitative, the more likely we are to arrive at understanding.

"What Do We Do With All Those Words?"
Patricia A. Kimle & Marsha A. Casselman

Researchers are often overwhelmed by the mass of narrative data that results from depth interviews, participant observation and document analysis. Computers increase the speed and accuracy with which data are analyzed. The researcher, relieved of the overwhelming task of manipulating the data, is free to spend more time contemplating and interpreting the findings.

Naturalistic studies are often devalued due to relative lack of statistical complexity. We choose naturalistic research because we believe that the methods and the resultant understandings of our subject are intrinsically valid. We seek a contextual understanding of a particular phenomenon. Computer-aided analysis may convert our contextual understanding gained through in-depth searching and thick description into a thin set of numbers and statistics. This poses the danger of relating to positivists on their terms rather than explaining ours to them, and losing the value of our methodological approach. The computer allows the use of statistics in naturalistic research. However, it is important to choose statistical tests only if they support the goals of the project.

**Research approaches.** If your goal is to explore a situation, or provide thick description, your choice of software may be different than if your goal is to generate theory. The theory-building approach to naturalistic research goes beyond the descriptive approach by seeking explanations to phenomena. Theories are generated by linking concepts that have been classified through the descriptive analysis. Terms for these types of analyses include grounded theory and constant comparative method (Richards & Richards, 1991).

These diverse research approaches call for different conceptual and mechanical operations. The responsibility for conceptual operations, such as the thinking, the decisions about themes and steps of analysis, and the ultimate interpretation lie with the researcher. Computers only handle the mechanical operations of data analysis, thus facilitating the conceptual operations. Several mechanical operations that can be performed by computers for use in data analysis were discussed (Tesch, 1991).

Researchers may need more than one program to do what needs to be done to meet the goals of the project. While we need to keep in mind the computer's capabilities when designing research, what the computer can and cannot do should not limit the scope of inquiry.

**Two major categories of software.** Data base managers are usually commercially developed general purpose programs used to efficiently store and retrieve information. The researcher must adapt these programs to fit her needs. The second category of computer software is text managers. These programs are usually developed by researchers for researchers. They specifically address qualitative analysis needs.

The two types of software have advantages and disadvantages. Data base managers use text that is broken into smaller chunks or "fields," which may create a loss of context. The fields may be too rigidly structured or too small for some data, such as lengthy interviews. Text
managers, on the other hand, maintain the integrity of the entire text as a single unit and do not require the structuring of fields. The text can be broken into smaller segments as the analysis progresses. The trade off for maintaining the text as a whole is reduced speed and efficiency when performing searches, as the computer must search the entire text upon each request.

Text managers facilitate the theory-building approach. They usually allow easy changes to and addition of codes as ideas are drawn together. Data base managers are sometimes less flexible in dealing with emerging themes. Often reclassification of previously coded data is difficult (Tesch, 1991).

General suggestions. Across all programs with which we have worked, we have found it important to know the program you plan to use before you design your instrument. The ways you will want or need to code your data to be manipulated by the computer may influence the ways in which you want to structure the questions. Likewise, know the particular format in which the data must be entered into the word-processor in order to be compatible with the analysis program. If you are having another person do the transcribing, be sure to have these instructions mapped out before working with the typist. Specific understanding of the commands in the word-processor might be beneficial.

"Writing for Publication"
Mary A. Littrell

In facing the challenges of writing from a naturalistic study, I have found the comments of anthropologist Clifford Geertz (1973) to be an encouraging reminder for gaining perspective on a mass of data. Geertz states that it is, "not necessary to know everything in order to understand something" (p. 20). Often naturalistic researchers must "chunk down" field data into individual stories in order to gain a handle on their field experiences. The manuscript becomes a single story or interpretation that illuminates understanding of the data from a particular perspective.

When submitting naturalistic research to journals, particularly those where the approach is not commonly used, it is imperative that we be assertive in requesting that at least one of the reviewers be a scholar who understands and accepts the premises of naturalistic inquiry as a reasonable way of conducting research related to the "how" and "why" types of questions we are asking.

As writers we have responsibility to provide context for our interpretations. Whether in the text, or as a reference note, we are obligated to provide information on: the theoretical framework(s) which served as points of departure for the research; the nature and extent of the data base, including efforts at triangulation; when and where the data were collected; nature of the researcher's involvement with the informants; nature of the interviews that are central to naturalistic research; and the methods by which data were managed, analyzed, and interpreted (Wolcott, 1990).

References
THEORIES OF FASHION ORIGINATION

Susan B. Kaiser, University of California, Davis, CA
Sandra S. Hutton, Colorado State University, Ft. Collins, CO
Richard H. Nagasawa, Arizona State University, Tempe, AZ

This session continued the dialogue started at the 1991 meeting where the symbolic interaction theory of fashion was introduced. The goal this year was to examine the theory in a slightly different context: i.e.; one of fashion origination or the issue of where visual concepts of appearance styles originate. We evaluated articles published between 1970 and 1991 and identified variations in the goals of research and historic analyses. An in-depth evaluation of these works’ approaches to fashion concepts indicates priorities in the field’s research questions. The literature shows most of the research conducted on fashion deals with fashion diffusion or adoption. Additionally, the vast majority of existing articles are of an essay or popular style as opposed to actual work on the topic.

Conventional wisdom posits fashions originate in one of two major social realms. One commonly assumed position claims fashions originate by designers, and are produced, advertised and distributed for the purpose of profitable gain. The opposing view suggests fashions originate in subcultures, reflect concerns of subcultures, and are co-opted by business for profit. The first views designers as the "molders of fashion" who are able to perceive and articulate emerging taste due to their "close contact with leading creative and progressive elements in the arts, sciences, politics, and culture generally" (Davis, 1992, p. 198). The second assumes that true innovation emerges from subcultures suggesting designers and the industry are merely acute observers of the social situation and able to translate looks from the streets and other places into marketable styles.

We suggest that both views of fashion origination may be subsumed under the symbolic interaction (SI) theory of fashion (Kaiser, Nagasawa, & Hutton, 1991), which in turn subsumes various theories of fashion adoption and explanations of how particular styles move through social systems. The SI theory accommodates theories based on trickle down, horizontal flow and upward movement of new styles. Further, it demonstrates that these theories emphasize diffusion and don’t explain why fashions change or why new styles continue to emerge.

We believe it is counterproductive to focus exclusively on one model or the other. The first model assumes origination in the context of producer cultures; the other focuses attention on consumer cultures’ abilities and tendency to develop new looks for purposes of expression and social/political voice. The symbolic interaction theory of fashion encourages us to examine the interfaces between these two perspectives by exploring the sites of interaction and negotiation between producer and consumer cultures.

In the spirit of theory building, we reviewed three functions of theory: (1) to explain findings, (2) to guide the search for new data, and (3) to organize hypotheses and data into a system or structure.

The panel posed questions to encourage dialogue among members of the audience. A lively discussion centered upon a number of issues:

- the need for a distinction between prevailing models of fashion diffusion and the study of how fashions originate.
- the tendency among researchers and theorists to focus on the product (linked to the vested interests of producer cultures) at the expense of consideration of appearance styles (linked to the everyday expressions within consumer cultures).
- The suggestion that fashion "gatekeepers" (buyers, advertisers, fashion illustrators) experience ambivalence just as consumers experience identity ambivalences; a fruitful area of inquiry may be to characterize and compare ambivalences in producer and consumer cultures.
- The idea that meanings need to be negotiated in producer as well as consumer cultures; the concept of gatekeeper may need to be expanded to accommodate these negotiations.

In summary, the symbolic interaction theory of fashion explains why fashions continue to change as opposed to trying to predict which style will be selected over others or what style will be presented in future time frames. Rather, it predicts why and how the fashion system (see Roach & Musa) operates in conjunction with ongoing ambivalences, ambiguity, and negotiations.


CULTURAL DIVERSITY: CHARTING NEW DIRECTIONS

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The changing complexion of our society and the diversification of America as reflected by the 1990 United States census makes it imperative that professionals in higher education take a proactive stance on cultural diversity. For years, the society in the United States has promoted the melting pot theory, which supports the multitude of injustices imparted upon minorities. Inequities have been highlighted and sometimes partially remedied. However, at an educational level, addressing cultural diversity issues has often received no more than lip service. Part of the difficulty may be society’s concept of culture and neglected understanding of cultural development. For most people, the term culture is vague because individuals live their cultures and seldom explain it or consciously think about and/or evaluate it. In return, behaviors and attitudes manifest at a level of unawareness which promotes unknowingly underlying and implicit assumptions that have profound effects others.

Most professionals attempt to build an eight hour day working relationship with culturally diverse people, only to succumb to attitudes and beliefs that hinder their efforts. The lack of cross-cultural training may contribute to an individual’s short sightedness about culturally diverse people. However, for an organization committed to creating change, emphasis must be placed on understanding human diversity as it relates to both race and culture. Race is a concept used to divide mankind into categories based on physical characteristics while culture is perceived as the relationship between general circumstances and an individual’s behavior within society. Additionally, one’s race/culture membership group is a learned aspect of social, intellectual and personal development that determines the individual’s perception of others.

The Hoopes intercultural learning continuum is a four stage transformation model. The learning and training model allows an organization to determine which of its activities respond to the diversity of its members. Learning by doing in a specific sequence is the basic premise for the model. The model begins with ethnocentrism and proceeds through the following stages.

The isolation stage refers to a fundamental need to know and appreciate one’s own racial/ethnic group identity. The individual’s knowledge and acceptance of self will influence his/her ability to understand and accept differences of others. Workshops and seminars may be used to acquaint an individual on race and ethnicity.

The inquiry stage is a willingness to develop competencies about the values and beliefs of other racial and ethnic groups. An individual’s procurement of information may be through seminars, books, movies and other media that heighten their knowledge level. Workshops and seminars on racism, sexism and other forms of oppressive behaviors can be used to effectively develop interpersonal skills for others.

In the contact stage an individual seeks to develop acceptance, respect, and appreciation for other groups through direct contact. Examples of direct contact are cross-cultural workshops, eating at ethnic restaurants, attending another group’s religious services, and/or visiting as a guest in the home of an individual from another racial or ethnic group. Individuals gain mutual amelioration through these experiences which allow a brief immersion into another culture.

Finally, in the integration stage an individual supports cultural diversity and use interactions to heighten awareness of the exclusionary consequences of racism and other forms of social oppression. (Hoopes & Ventura, 1979 and Hoopes, 1979)

In seeking to explore and promote multiculturalism, an organization must examine the mission statement, utilization of resources, and the commitments for multicultural goals.

Cultural Interaction

Drs. Gloria William and Susan Kaiser used the an open forum to share their experiences relative to cultural diversity in teaching and advisement.

Dr. Susan Kaiser

The theoretical and experiential aspects of a curriculum must be intertwined to foster a thorough understanding of cultural diversity. The infusion of information about cultural diversity must be added to the current curriculum. As
professionals in the field of clothing and textiles, we value the textiles and apparel of diverse people, thus we must develop a sincere level of respect for the customs, beliefs and attitudes of culturally diverse people. Dr. Kaiser spoke of an interaction with an African American graduate student and how the reading of a book on culturally diverse yielded significant differences in interpretation. The differences were discussed and after a literature search, the student developed a conceptual framework for a research prospectus, which was based on the book, literature search as well as the student's experiences. Dr. Kaiser stated "Unless we dialogue with other groups, we can't go beyond the theory."

Dr. Gloria Williams

Dr. Williams proposed a question, "How do we put diversity in the content of our classes?" It is very difficult to put diversity into course content because our resource materials often includes minimum information about minorities and/or the information is not presented in a positive style. According to Dr. Williams, one such example has been reported in the literature that pertains to clothing expenditures for Blacks – Blacks spend more on clothing. A more appropriate statement would be – Blacks spend a larger proportion of their income on clothing – because they have a lower income than the majority. Dr. Williams strongly advocates that educators use the experiences of students from diverse cultures to shape the content of courses, especially graduate courses. Dr. Williams stated "Students of color require a little more, i.e. a little more understanding because of their experiences. They need a sense of community."

Cultural diversity is an idea whose time has come. More and more, organizations are awakening to the fact that cultural diversity is not a burden, but an opportunity to strengthen human resources. In the long term, effectively working through cultural diversity is strategically imperative for success in a highly competitive global environment.

References


DISCOVERING PLAIN DRESS: LESSONS ON DIVERSITY FOR RESEARCH, TEACHING, AND COLLECTIONS

Rachel K. Pannabecker, Kauffman Museum, N. Newton, KS 67117
Linda Boynton-Arthur, University of California--Davis, Linda Niehm, Bluffton College, Bluffton, OH, Nancy A. Rudd, Ohio State University, Columbus, OH

The intent of this session was to prompt a fresh examination of the diversity of behavior expressed through dress, by focusing on the plain dress of the Amish and Mennonite communities in North America. In these contemporary, religious, subcultural groups (as well as in other subcultures), dress is a communicator of culture and a conscious choice of personal expression. Dress communicates values both within and outside the groups and is also frequently governed by fairly strict codes and sanctions. Access to such subcultures is usually closed to non-members, which can contribute to an overly simplistic analysis of visual symbols and their cultural context on the part of casual observers and even earnest students of costume and culture.

How does the textiles and clothing educator, researcher, or curator study subcultural groups and present their rich cultural context to others? The panelists contributed from personal experiences. Beginning in 1979, Linda Boynton-Arthur conducted fieldwork among the Holdeman Mennonite (Church of God in Christ, Mennonite) of California. At Bluffton College in Ohio, Linda Niehm established a research and teaching collection of dress from Old Order Amish, Old Order Mennonite, and "old" Mennonite groups in Ohio and Indiana, with funding from the Lilly Foundation. Since 1980 Nancy Ann Rudd has included a unit on the Amish in "Clothing and Humanity," an undergraduate course at Ohio State University. (See following abstracts by Boynton-Arthur, Niehm, and Rudd.)

The goals of the session were: (a) to foster an appreciation for the diversity of dress through a consideration of dress that is non-fashionable but recognizably "western"; (b) to dispel erroneous notions about the religio-cultural basis of plain dress (e.g., "Their simplistic interpretations of the Bible had led the Amish to adopt some unique dress requirements; for example, lest the devil grab a buttonhole for a free ride, they have no button closures") [Storm, 1987, p. 247]; (c) to model the incorporation of plain dress into research, teaching, and acquisitions for cross-cultural costume collections; (d) to gain an appreciation for the complexities and benefits of qualitative and cross-cultural research in a North American setting, and to examine the logistics, ethical considerations, and etiquette of establishing contacts with plain dress groups; and (e) to expose ITAA members to the rich opportunities to study plain dress and to establish a network of scholars with interests in the historical, cultural, and social aspects of plain dress as well as those responsible for acquiring dress artifacts for collections.

To truly discover plain dress, we held that we must contemplate the meaning of these words of an 80-year-old Amishman from Indiana: "Just because we dress differently doesn't mean we look down on everybody else" (Pannabecker, field notes, 1992).

Reference

Recommended Reading
ETHNOGRAPHY AMONG THE PLAIN PEOPLE:
PLEASURES, PROBLEMS AND PITFALLS

Linda Boynton-Arthur, University of California, Davis CA 95616

Based on ten years of fieldwork with Plain groups such as the Holdeman Mennonites (formally known as the Church of God in Christ, Mennonite) and the Old Order Amish, I found that the pleasures significantly outweigh the problems of doing fieldwork in sectarian societies. One must keep my comments here in perspective: I did fieldwork with some of the most conservative groups among the Plain People and would not generalize these comments to all Plain groups. In addition to significant differences between Plain groups, there are differences between communities within the same religious conference.

In general, the pleasures of doing fieldwork among the Plain People include collecting "rich" data about very complex issues, such as ideology. The clothing of the Plain People is a window to the understanding of larger societal issues. Because of their understanding of, and use of symbols, these groups provide social psychologists with a rich site for the investigation of social interaction.

Pleasures include the intellectual challenge of working with groups that are both fascinating and unique. I felt privileged to have access to their world. With time, patience and observation, that world was revealed to me. I experienced serendipity over and over again as I discovered unique cultural patterns. One such pattern included finding that age-set societies (a pattern observed primarily in Africa) operate among the Holdeman Mennonites.

The problems I encountered in doing fieldwork related to cultural differences between the Plain People and outsiders. While researchers value knowledge, the Plain People consider it to be a source of pride and inherently problematic. As a researcher I was an intruder, and had to be aware of my impact on the social world I observed. Consequently, I had to be as unobtrusive as possible. I was not able to use cameras and tape recorders, since they are prohibited by the Plain People. Even note-taking had to be covert so as to minimize my impact on the social scene.

Access to the most conservative communities is very difficult, and even if the researcher is fortunate enough to gain entrée, she may find certain groups inaccessible. If the researcher is female, she will probably have a difficult time gathering data on men, since the society is sexually segregated. She may also find that talking with expelled persons is off-limits as well.

Time is the biggest problem — it takes a minimum of one year to do most ethnographic fieldwork, and with the conservative Plain groups more time is needed due to their discomfort with outsiders. A research plan has to be developed that puts sensitive research questions off until the end of the fieldwork.

The conservative Plain groups limit the education of their people to eighth or tenth grade. Combined with cultural constraints against analytic thinking, these factors limit the efficacy of interviewing as a research method. Interviewing has to be combined with observation as primary data collection methods.

Quantitative methods are generally not allowed, but this does not mean that statistical information is unavailable. By preparing kinship charts out of information gleaned concerning family histories, statistics for each family may be gathered. With enough kinship charts, the research can sample the population.

Pitfalls revolve around emotional involvement by the researcher that may lead to romanticism. As a researcher in a Plain community, it sometimes felt as though I had entered a time warp. Life seemed simple, compared to the complexity encountered in the outside world. My reaction was not unique. Ethnographers sometimes "go native"; they consider leaving their own worlds and joining the community that they studied. This happened to me. The biggest danger with "going native" is that, because the ethnographer has lost her objectivity, she can't see the ambiguities, nuances, and ambivalences all around. Fortunately, this phase generally passes, and with time, objectivity is restored.
COLLECTING PLAIN DRESS: THE PRESERVATION OF MENNONITE HERITAGE

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The Mennonite Historic Costume and Textile Collection was originally developed through summer research funded by the Lilly Foundation in 1989. The ongoing goal of the Collection is to provide a rich source of Mennonite history and heritage through representative garments, accessories and related textile items. The items held in the collection provide extensive opportunity for research by faculty, students and the college community, as well as use in teaching and community service. While several archives preserve items generally significant to Mennonite history, none focus specifically on clothing and textile items. Additionally, many Mennonite and related groups have minimized or no longer practice plain dress. This abandonment, also known as drifting, indicates that collections such as this fill an important void in the preservation of plain dress for research, teaching and the broader Mennonite community.

The initial Collection was formed from approximately 30 "plain" artifacts held in the Bluffton College Home Economics Department. No formal attempt had been made to accession the items and provide documentation prior to this research. Since the initiation of the Collection, extensive additions have been made numbering to around 200 examples of plain dress. The age of the holdings in the Collection ranges from the mid-1800's to present day. Plain groups represented include Old Order Mennonite (Wenger), Old and New Order Amish, Beachy Amish-Mennonite, and "Old" Mennonite. There are also numerous non-plain period costumes in the collection which provide for contrast and comparison with popularized period fashion.

Sources for artifacts added to the collection include: donations from Mennonite sources related to Bluffton College, purchases directly from Mennonite and Amish families, community suppliers of plain clothing and accessories, newly constructed garments made by Old Order Amish seamstresses, and used clothing stores in Mennonite and Amish communities. It should be noted that much clothing worn by plain groups, especially women's clothing, is home produced. Some areas have inter-community specialization by family in the production of certain apparel items (i.e. head coverings, plain coats). There are also several sources from which manufactured items, particularly men's apparel, can be purchased. It is crucial to develop community contacts to assist with source identification and dialogue regarding dress sanctions and interpretation of style components.

Plain dress continues to be important among old orders and conservative Mennonite groups as it provides perhaps the only reinforcer of group belonging and means of remaining separate in our complex and fast paced society. These same social factors of time, economic and other resource constraints have added to the lessening or abandonment of plain dress by less conservative groups.
INCORPORATING THE STUDY OF PLAIN DRESS INTO CULTURAL DIVERSITY TEACHING

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In an effort to provide students with an appreciation of cultural diversity and universality through an examination of behaviors related to dress, we teach a course entitled Clothing and Humanity. This course is taken by department majors and many other students. The course includes units on cultural, peer reference group, and individual behaviors. Within the cultural unit, 4 to 5 cultural groups are compared with respect to cultural patterns, artifacts, and meanings. The focus is on cultural relativity and valuing differences.

The Old Order Amish are studied as one such cultural group. We discuss the cultural context, specific symbols used in dress, and symbolic interaction within and outside of the group. We examine underlying values of humility, simplicity, orderliness, and Godliness and how these values are reflected through dress as well as other group and individual behavior. The process of values development (modeling, identification, and socialization) provides a useful approach. To conduct this examination, we use two films, a collection of 8 garments, guest speakers, and trips to local museum quilt collections.

We also discuss semiotic codes that are culturally prescribed, yet individually created. Semiotic codes suggest a cultural frame of reference for interpreting behavior. We look at the code within the Amish cultural group as being explicit and fairly rigid, or high in semanticity, and examine the fit between various signs and their meanings. The signs or signifiers are various items of dress, hair-styles and accessories, while the meaning or message is what is signified. A few of the signifiers that we discuss and their meanings are as follows: apron-readiness for work; prayer cap-faith, humility; double bodice-modesty; lack of buttons-pacifist belief; basic colors-reverence for nature, humility; beard-church membership, married status; lack of neckties, belts, watches, wedding rings-humility, simplicity. While there may be a high degree of conformity within the reference group, there is also some expression of individuality, as evidenced through color choice. There is planned nonconformity to the larger urban-industrial or mass society.

A few references have been particularly helpful:

CONSUMERS' AESTHETIC EVALUATION OF CLOTHING: THE EFFECT OF AGE, SEX, AND FASHION INVOLVEMENT

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Research was conducted to study 1) the use and importance of design elements in aesthetic evaluations of clothing and 2) the influence of age, sex, and fashion involvement on aesthetic preferences.

The subjects were 91 females and 77 males in four age groups: 20 to 24, 31 to 35, 44 to 48, and 56 to 60. The research instrument was developed using a $2^8$ fractional factorial design. Combinations of men's jackets and pants were created using jacket silhouette, length, neckline, collar, pattern, color and pant silhouette and color, each varied at two levels. The dependent variable was respondents' evaluations of the attractiveness of each outfit that were recorded on continuous rating scales.

The individual subject ANOVA (p<.05) revealed that the dominant influence on subjects' aesthetic preferences was the interaction of jacket silhouette and jacket pattern. This supports the notion that the evaluation of fashion is complex and gestalt. Jacket length, pattern, collar, and neckline were the most influential individual design elements. Of less importance were jacket and pant silhouette followed by jacket and pant color. According to the post hoc ANOVA, subjects categorized by age (p<.001) and those grouped by age, sex, and fashion involvement (p<.0001) used the design elements differently.

The results enhance models of consumer decision-making for apparel, particularly models of fashion adoption. The information may help retailers select merchandise and plan promotions.

PHYSICAL PERFORMANCE AND WEAR ASSESSMENT OF PEG-TREATED ATHLETIC SOCKS

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Polyethylene glycol (PEG) finishes are projected to have a major impact on consumer and industrial products because PEG imparts a certain degree of temperature adaptability to textiles. Laboratory studies comparing treated and untreated fabrics of different fiber contents indicate that PEG is a multifunctional finish, improving other properties, such as resiliency, absorbency, and abrasion resistance (Bruno & Vigo, 1988). PEG-treated apparel items are commercially available. However, consumer evaluation have been limited.

Therefore, the objectives of this combined laboratory and wear study were: 1) to determine the effect of PEG treatment on physical performance and wear properties of socks; and 2) to assess consumers' perceived comfort of PEG-treated socks.

White athletic socks of 80 percent acrylic, 18 percent nylon, and 2 percent spandex were pad-cured with PEG resulting in a 20-25 percent add-on. Laboratory tests were conducted using modified ASTM and AATCC standard test methods. One-third of the treated socks inhibited bacterial growth. Analysis of variance indicated that treated socks showed improved performance over untreated socks for stiffness, dimensional change, and absorbency (p<.05). No significant differences were found for soil release and abrasion resistance.

Twenty-one students from a mid-western landgrant university wore one treated and one untreated sock while playing racquetball during three 30-minute wear periods. After each wear period, the participants completed a questionnaire which assessed perceived comfort using characteristics identified by Morris, Prato, and White (1984-1985). Softness, weight, fit, thermal comfort, odor of worn sock, dryness of foot, and overall comfort were rated on a seven-point Likert scale.

For wear period one, analysis of variance indicated that consumers perceived treated socks more positively in softness, fit, odor after wear, and overall comfort. No significant differences were found in wear periods two and three. The aggregate data showed significant differences between treated and untreated socks for fit and overall comfort. These findings suggest that low add-on or physical changes that occur in untreated specimens contribute to consumers' inability to perceive performance differences. More investigation of the amount of add-on and consumer perceptual differences is recommended.


FASTENER SYSTEMS ON APPAREL FOR HEMIPLEGIC STROKE VICTIMS

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Many stroke victims suffer hemiplegia (i.e., weakness to full paralysis on one side of the body) and the type and location of fasteners on apparel becomes critical. While some manufacturers have offered some apparel specifically designed for the physically challenged population, these garments vary widely in their ability to make dressing for a hemiplegic easier. The purposes of this study were: (1) to evaluate a series of garments with different fastener types and locations to evaluate the functional qualities and (2) to evaluate the same fastener types and locations for wearers' subjective evaluations. The experimental design for this study was a 3 X 3 factorial complete randomized block design with a control. The independent variables were: (1) fastener type and (2) fastener location. A garment with conventional shirt buttons at the center front location served as the control. The dependent variables were: (1) time required to open the fasteners, (2) time required to close the fasteners, (3) number of fasteners opened, (4) number of fasteners closed, and (5) subjective responses to a questionnaire. Stroke victims who suffered hemiplegia served as subjects for the study. The results indicated that Wavelok Velcro was the easiest fastener type to manipulate in time to open and close. The data indicated less discrimination between number opened closed between fastener types and/or locations. For the experimental garments (excluding the control garment), location was not significant, but was significant in combination with some fastener types when the experimental garments were compared to the control. Subjective results indicated that subjects preferred the Wavelok fastener type in the center front location.

HUMAN VALUES AND CLOTHING: SUBJECT-OBJECT INTERACTION

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A conceptual framework based on a human ecological perspective is proposed for the study of human values. Its usefulness is illustrated through application to the clothing domain. A two-dimensional matrix based on focus and measurement approach is presented as a framework to classify past values research and guide the conduct of future values research.

Values investigations may be grouped according to three major foci: CONTENT, those that focus on the individual's value holdings; STRUCTURE, those that focus on examining spatial representations of the relations among values through mapping of hierarchies, clusters, or domains; and PROCESS, those that focus on the human-environment interaction as values are developed, mediated, clarified, or changed. Additionally, three measurement approaches for valuation have been identified on the basis of subject-object inclusion: SUBJECT-ONLY APPROACH, in which subjects are questioned about their value holdings without reference to any contextual object; SUBJECT-OBJECT REACTIVE APPROACH, in which subjects are asked to make judgments about objects according to specified values or according to the subject's own value system; and SUBJECT-OBJECT INTERACTIVE APPROACH, in which subjects are asked to respond to characteristics of an object and, in addition, the effects of their actions, as a result of their value holdings, on the characteristics of the object itself are measured.

The paper illustrates the application of this two-dimensional matrix to clothing and human values research conducted during the period, 1960-92. Most research employed a content or structure focus within a subject-only or subject-object reactive approach. Only one program of study used a process focus within a subject-object interactive approach.

Based on the human ecological paradigm, new frontiers for values research and measurement within the clothing domain are proposed. These include use of a subject-object interactive approach which derives from a systems perspective; the elucidation of value process, especially values acquisition, intergenerational transmission, and change; and the incorporation of context-specific values derived empirically with the use of an open rather than closed model of measurement.

Values and valuing are key concepts within a human ecological perspective. Scientists who wish to incorporate the measurement of human values have, within the framework of this paper, additional perspectives from which to begin their endeavors.
RESEARCH IN CLOTHING AND HUMAN BEHAVIOR: DESIGNS AND SAMPLING TECHNIQUES

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The purpose of the study was to investigate and classify the types of research designs and sampling techniques used by researchers in clothing and human behavior. An analysis of published research in the area was conducted. 108 articles published in the Home Economics Research Journal (volumes 1-19) and 116 articles published in the Clothing and Textiles Research Journal (volumes 109) that focused on dress using human subjects were classified according to the research design employed (laboratory experiment, field experiment, analytic survey, descriptive survey, or other) and sampling technique used (probability - simple random, systematic random, stratified random or cluster random; or non-probability sampling - convenience, quota, purposive or snowball). Within- and between-subjects designs and random assignment to experimental groups were also noted.

Results indicated the most common research designs used were the analytic and descriptive surveys (32% each) followed by laboratory experiments. The most common primary sampling technique used was non-probability convenience sampling (45%). The use of probability sampling was rare. Of those studies classified as experiments, almost half were also within-subject. Of the between-subjects designs, 66% of the studies indicated that subjects were randomly assigned to the experimental groups.

CONDRESSING FLUGEL: ORIGINALITY, AUTHORITY, AND THE ROLE OF THE READER

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Flugel's The Psychology of Clothes (1930) has an impressive publication and citation history and is considered to be a classic in the textiles and clothing literature. The purposes of this report were to model the role of the critical reader in assessing a text, to provide a revised evaluation of a classic book and its author, and to draw implications for textiles and clothing research. The investigation was guided by the methods of source criticism, from history, and textual analysis, from literary studies.

A critical reading of Flugel's work prompts a reconsideration of his status as authority. Flugel borrowed heavily from others—concepts, interpretations, examples, and graphic illustrations. I suggested that Flugel's status as an authority is based on his education, academic and professional positions, and the reputation of his publishers, as well as his gender and nationality.

A critical reading also illuminates areas in which Flugel did provide original content and interpretation on the psychology of clothes, such as his discussion on the dialectics of modesty and display. I suggested that Flugel's contributions have not been systematically studied because of the developments within academic psychology which ignored "practical" studies and Freudian interpretations, and which emphasized the social over the individual.

The undressing of Flugel demonstrates the importance of knowing the author, analyzing how authority is established, and tracing the genealogy of ideas. While Flugel is frequently cited for his formulation of the fundamental motives for clothing, I showed that this approach can be found in a book published over 100 years earlier (de Spallart, 1804, pp. 1-5). I raised the question whether we know the history of our own literature.

References


GENDER IDEOLOGY AS A KEY TO APPEARANCE BEHAVIORS: THE POWER OF SELF-ESTEEM

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The social construction of gender begins early in life. For women it may include the expectation of extreme interest in appearance and looking youthful, thin, and attractive. Beauty regimens may include routine behaviors such as hair combing or extreme behaviors such as surgical procedures, anorexia, or extensive appearance maintenance. If a woman holds a more traditional gender ideology (GI), she may be more preoccupied with appearance behaviors (AB). If a woman holds a nontraditional GI, she may have a different interpretation of the cultural body image and may feel more satisfied with her body without as much emotional or time investment in AB. We hypothesized that women with non-traditional GI would engage in routine AB less frequently and be less likely to consider extreme AB than women holding traditional GI.

Subjects were 194 undergraduate women. GI, AB, and self-esteem (SE) were measured on Likert scales. Subjects were divided into 2 groups based on a median split. A range of frequencies was found for routine AB; factor analysis revealed 6 factors which accounted for 60% of the variance. Subjects were likely to consider 3 extreme AB; 4 factors accounted for 51% of the variance. MANOVA revealed that GI had little effect on frequency of AB and no effect on likelihood of extreme AB. Regression indicated which factors together predict SE: body satisfaction (8%), GI (3%), and extreme/hazardous procedures (2%). Clearly, the cultural ideal of beauty is pervasive for this narrow age group, perhaps due to the effect of images in the media. Replication studies are in progress.

THERMAL RESISTANCE OF SKIWEAR MEASURED BY THERMAL MANIKIN AND THERMOGRAPHY

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Vapor permeable water repellent (VPMR) fabrics and synthetic insulative battings for skiwear and other outerwear have gained in popularity. This research comparatively evaluated the thermal resistance of experimental skiwear made of new VPMR fabrics and synthetic battings. Two nylon taffeta VPMR fabrics were evaluated: Hipora-TM® coated with dimethylformamide (DMF) and aluminum; and Hipora-CR® coated with DMF and ceramic particles. The battings were: Viwarm® (100% polyester) and Airseal® (70% polyester/30% nylon). All combinations of the fabrics and battings were used in jacket-pants outfits.

Thermal resistance of the four outfits was measured on a thermal manikin, in climatic conditions of 21 ± 2°C, 50 ± 5% rh, and 0.25 m/sec air velocity, at the breast points, back, abdomen, loin, shank, upperarm, and forearm. Resistance measures were complemented by thermography, with emissivity level = 1, at climatic conditions of 2 ± 2°C, 0% rh, and 0.25 m/sec air velocity. Thermography yielded color maps of the outfits, indicating relative clothing-surface temperatures due to infrared emission.

The thermal resistance of the Hipora-CR/Airseal and Hipora-TM/Viwarm outfits was significantly higher than that of the Hipora-CR/Viwarm and the Hipora-TM/Airseal. Hipora-CR/Airseal had the highest resistance, thus gave the best insulation. Hipora-TM/Airseal had the lowest resistance. The results are inconclusive on the relative insulation offered by the battings, but suggest the insulative superiority of the ceramic-particle coating over the aluminum coating. Thermography indicated the highest surface temperatures for Hipora-CR/Airseal. This is thought to be because the ceramic particles absorbed heat from the body, then radiated infrared rays that increased the clothing-interior temperature, leading to emission at the surface. While the ceramic-particle coating evidenced as the better insulator, it may contribute to radiant heat loss.
MOISTURE PERCEPTION ASSOCIATED WITH
ACTIVEWEAR FABRICS

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The psychophysical method of constant stimuli has been shown to be a promising alternative for assessing subjects' perception of moisture in fabrics. The method relies on the presentation of fabric stimuli prepared with a known amount of moisture and the assessment of the corresponding sensation as to the presence or absence of moisture, or the discrimination of more or less moisture than a standard stimulus. The objectives of the study included: 1) determine moisture threshold values for a battery of activewear fabrics, 2) obtain fabric characteristics data, 3) combine threshold value data with similar data. Absolute threshold values for 4 fabrics designed to be worn next-to-the-skin were determined in an environmentally controlled chamber. Test fabrics were selected based on their extent of use for the athletic sportswear market and anticipated thermal comfort and moisture transport properties. Four knit fabrics were selected: 1) 94% cotton/6% spandex, 2) 90% polyester/10% spandex, 3) 90% polypropylene/10% spandex, and 4) 80% nylon/20% spandex blends. Fabrics were prewashed and cut into 5 x 5 cm squares. Bone dry swatches were placed in small glass bottles, and predetermined amounts of distilled water was applied by syringe. Four replications were performed for each of the 4 fabrics, constituting 128 total trials for each of the 15 paid female volunteers, ages 19 to 23.

ANOVA indicated a significant difference for absolute threshold. An LSD test showed differences for all fabric pairs except for the polyester and polypropylene blends. These data were pooled with previously collected AL data. ANOVA for the 8 fabrics indicated significant differences and LSD test results showed that differences were primarily based on fiber content, weight and surface smoothness. The 100% or mostly polyester and polypropylene fabrics had low ALs while the 100% or mostly cotton and nylon fabrics had significantly higher ALs.

PARENTS’ EXPERIENCES WITH FORM-FITTED CLOTH DIAPERS

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Disposable diapers are highly visible in solid waste causing policy-makers to suggest a return to cloth diapers. Manufacturers have designed form-fitted cloth diapers and Extension field staff asked if these could be recommended.

The purposes of this study were 1) to document parents' experiences with and perceptions of two form-fitted cloth diaper designs and 2) to evaluate diaper performance for an extended period of use.

A convenience sample of 20 families with a child 4 to 24 months of age was selected for a 12-week wear study. Freshly laundered diapers were collected at 3-week intervals to test for microbial contaminants. Parents completed surveys before, at intervals during, and after the wear period to indicate their experiences with, perceptions, and opinions of the diapers.

Results show that microbial contaminates did not accumulate with regular home laundering. Parents were eager to participate and were satisfied with the diaper styles, the convenience at home, the comfort of the form-fitted diapers, the washing procedures, and the lack of diaper pail odor. They were concerned about costs, long drying time, low absorbency, leakage, staining, and the extra time required for more frequent changing and laundering. Parents agreed that cloth diapers were better for the environment, but follow-up surveys showed them unwilling to sacrifice time now for uncertain environmental future benefits. However, form-fitted cloth diapers do offer a workable and safe alternative to disposable diapers.
LABORATORY EXERCISES THAT COMPLY WITH OSHA STANDARD 29 CFR PART 1910
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As of January 31, 1991, all laboratories must adhere to the guidelines delineated in OSHA's Occupational Exposures to Hazardous Chemicals in Laboratories, 29 CFR Part 1910. The regulation requires that management functions be assumed by instructors, supervisors, and/or their superiors. The purpose of this presentation was to identify the major parts of OSHA 29 CFR Part 1910 to which laboratories must adhere; to suggest methods of incorporating the regulation into laboratory exercises; and to discuss the requirements of a Chemical Hygiene Plan.

The rigidity of the standard has made proper use of hazardous chemicals in a laboratory a priority. Ignorance will not suffice as a defense in litigations. Thus, the criteria of OSHA Standard 29 Part 1910 must be incorporated into all laboratory exercises and procedures. Generally, compliance with the regulation may be achieved by adding the following objectives to those of each laboratory exercise: (1) incorporate laboratory safety training into routine laboratory procedures/instructions; (2) identify student's worker's rights and responsibilities in a laboratory setting; and (3) provide safety and health hazard information.

A laboratory manual for a beginning level textiles class was rewritten to adhere to OSHA 29 CFR Part 1910 and to address the emotionalism attached to proper chemical use in today's world. This manual was used two semesters by a total of 50 students. The previous manual had a laboratory safety sheet in the introductory section. Usually, student attention to the rules listed on this sheet waned toward the end of the semester. The new manual incorporated safety training and information into each laboratory exercise. The introduction to each exercise clearly identified (1) proper equipment and procedures for chemical use in each experiment; (2) use of Material Safety Data Sheets; and (3) rights and responsibilities of each student working in the laboratory. Evaluation of student compliance with the OSHA 29 CFR Part 1910 was achieved through examination and through an interactive computer quiz.


BEDCOVERINGS OF FAMILY DOMESTIC MANUFACTURE
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Patterned woven bedcoverings were often the most prized possessions of our ancestors and were often saved by succeeding generations. These textiles have also been the subject of many books and museum catalogs. While they provide valuable information about extant textiles, what specific types of bedcoverings were actually of those used?

The population of probate records (8,122) of Orange, Alamance, and Durham Counties, North Carolina was searched for notations of bedcoverings as well as information about the spinning and weaving done in homes. These records include many documents but sales accounts, estate inventories, and widows' allotments reveal the most information about bedcoverings which were held by families. There were 1051 notations of bedcoverings. The data were entered into a computer spreadsheet program, were sorted by type, and a seriation graph was run (Turnbaugh, 1979).

The probate records show that a total of 60 different terms were used when referring to bedcoverings. Most were variations of counterpane (16) or coverlet (15); some descriptions provided a fairly clear meaning while others remain obscure. There were seven terms used for blankets and six terms used for sheets. The way in which the bedcoverings were listed indicates that bedcoverings we might call blankets or sheets today were called coverlets or counterpanes. The records also indicate how many bedcoverings of each type were used by families. The widows' allotments show by the phrase "bedclothing of family, domestic manufacture" that, for many families, bedcoverings were produced at home. The presence of spinning and weaving equipment in the records also supports that supposition. The seriation graph produced few clear "battleships" because most of the terms were used throughout the 19th century. Many of the terms appeared too seldom for quantitative analysis.

Probate records are useful sources for investigating kinds and quantities of bedcovering found in 19th century homes. They also show that those who used these textiles perceived more variation in textile types than are often assigned to the extant 19th century bedcoverings today.

TEXTILE CONSUMPTION ON A
MARYLAND PLANTATION: 1815-1840

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Martha Browne Ogle married General
Thomas Marsh Forman of Rose Hill, Cecil
County, Maryland on May 19, 1814. She began
her diary on her wedding day and kept a daily
account of events at Rose Hill until the early
1840's. Forman's diary provides an opportunity
to examine textile production and consumption on
a major working plantation. She recorded the
steps involved in providing textiles and clothing
for the fifty plantation slaves, for paid laborers
and for family. The diaries illustrate the complex
network of businesses, artisans slaves and
neighbors involved in the manufacture of clothing
and textiles. They also provide an opportunity to
analyze the types of textiles and clothing
purchased versus what was produced and to look
at changes over a 30 year period.

Forman's diaries show that life as a
plantation mistress was not one of pampered
luxury. She was responsible for supervising textile
production and for making decisions concerning
what work was done on the plantation and what
should be sent elsewhere. Wool was carded at a
local mill, while spinning of flax and wool was
done by the slaves. Weaving was seldom done on
the plantation, and was often the source of
problems. She recorded using at least eight
different weavers over the thirty year period.
Forman often worked side by side with the slaves
in producing textile items and on several
occasions wrote of spending one day quilting with
ladies from neighboring plantations and the next
day working on the same quilt with the slaves.

Although both flax and wool were
produced in large quantities, production was
insufficient to provide the wide range of textiles
needed. The diaries illustrate that the Formans
relied heavily on outside sources both for finished
goods and for skilled labor. Forman kept at least
a partial account of textile purchases which
included coverlets, rose blankets, carpets and
domestic cotton yardage, sometimes noting the
price and weight of the goods.

Martha Forman continued her diaries
until just after her husband's death on May 8,
1845, providing a 30 year look at plantation life
in the Northern Chesapeake Bay.

FURNISHINGS TEXTILES IN A VICTORIAN
LIBRARY:
A MATERIAL CULTURE CASE STUDY

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Furnishings textiles are an effective vehicle for
understanding the sociocultural history of the
American Victorian home. As the interpretation
of historic houses moves beyond connoisseurship and
stories of "great men" to include discussions of family
lifestyle and meaning, this is especially relevant.

Furnishings textiles in the library of the
Alexander Ramsey House (1872), home of
Minnesota's first territorial governor, were studied.
The research method was derived from material
culture models articulated by Ames (1978) and
Fleming (1974). The procedure had three steps:

• Identification and documentation focused on
upholstery, window treatments, wall and floor
coverings, and miscellaneous textiles such as portieres,
doilies, and needlework. Original receipts, photos,
daybooks and journals facilitated this activity.

• Analysis of the cultural context included ex-
amination of trade catalogs, household art
publications, and historic photographs of libraries in
other American homes of the period.

• Data interpretation resulted in the following
conclusions: (1) The Ramsey family's lifestyle was
revealed by its consumer behavior. (2) Meaning
was communicated by the family through its
choice of furnishings textiles. (3) The Ramsey
House was a microcosm of the Victorian era and
the family participated in three major sociocul-
tural trends of the period: strong ties to heritage
and tradition, consumerism and the desire to be
fashionable, and the cult of domesticity.

Furnishings textiles deserve major credit for the
visual impact of American Victorian interiors.
Because they were valued by the society that pro-
duced, purchased, and used them, textiles are a
useful vehicle for researching the era. Material
culture study of furnishings textiles within a sociocul-
tural, economic, and political context is in its
infancy. This case study illustrates the usefulness of
furnishings textiles for material culture research,
contributes to a greater understanding of the
Victorian home and family, and has practical im-
lications for furnishing and interpreting historic
sites.
THE HARMONY SOCIETY 1826-1852: EVIDENCE OF AN AMERICAN SILK INDUSTRY AT ECONOMY PENNSYLVANIA

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During the second quarter of the nineteenth century a religious communal group known as The Harmony Society, founded by George Rapp, cultivated and manufactured quality silk textiles in Western Pennsylvania. This study focuses on the correspondence concerning their silk industry.

The purpose of this study is to assess the technical knowledge which the Harmonists possessed concerning raw materials, fabric production processes, and tools for successful silk sericulture and silk textile production. The majority of the correspondence dealt with cultivation including the buying and selling of silkworms and the planting and growing of mulberry trees.

Results indicate that the Harmonists demonstrated the necessary technical knowledge for successful sericulture and silk textile production. The number of letters the Harmonists received requesting information and the responses they gave about their silk cultivation and manufacturing operations demonstrated the technical knowledge they possessed about this industry. Also, their willingness to share the information shows the dedication and commitment they made to silk cultivation and manufacturing and to developing a domestic silk industry in the United States.

A REVIEW OF AESTHETICS LITERATURE: MORE THAN WHAT MEETS THE EYE

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We explored the state of the art of aesthetics and compared aesthetics literature outside our field to inside our field.

To delineate the study of aesthetics outside the field of textiles and clothing, we surveyed literature from a variety of disciplines. We compiled references using key words (e.g. aesthetics) to locate relevant books and journal articles in indexes of scholarly work and the card catalog of Iowa State University library. The ancestry approach generated further materials.

To identify aesthetics articles within our field, we looked for key words or content addressing aesthetics in titles and abstracts of articles in Clothing and Textiles Research Journal and Home Economics Research Journal. These aesthetics articles were gathered and reviewed for comparison to aesthetics literature outside our field.

Results and Conclusions. The review of aesthetics literature outside our field generated five categories: creator, creative process, object, appreciation process, appreciator. A comparison of aesthetics literature inside and outside suggests that there is more to the study of aesthetics than "what meets the eye" in literature of our field. Aesthetics is more than the process of perceiving (e.g., it's spiritual and emotional), visual form (it's multi-sensory), and characteristics of the form (research in our field focused on the object and seldom explores the creator or process categories). In addition, there is much more aesthetics literature outside our field than what meets the eye in reference lists of the 47 TC aesthetics articles we identified. The study of aesthetics should be more than what meets the "T"; we should study not only the aesthetic objects of other cultures, but also explore how other cultures define the aesthetic experience to expand our definition of aesthetics. Our expanded definition of aesthetics is: the study of internal process, the product's multi-sensory characteristics, and the psychological and socio-cultural factors of the individual that affect response to non-instrumental qualities (not providing external benefits) of the product during creation or appreciation.
PHOTO DOCUMENTATION IN DESIGN RESEARCH

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Photo documentation can be used throughout the design research process to visually describe: sources of inspiration, ideation phase of design development, processes involved in design transfer and surface design, results, and evaluation. Two questions can be answered using this method: 1) where did this design come from and 2) how was this design created. The benefits of using photo documentation are to add to the knowledge base and to facilitate replication.

A recent design project served as an example of photo documentation. The purpose of the project was to create an ensemble suitable for wearing to a cultural event such as an opera. The objectives were to: manipulate woven fabric in such a way as to impart stretch and wrinkle resistance; create a piece which celebrated the inherent capacity of silk to reflect light; create a piece about line and texture by using contrast; and create a balanced asymmetrical jacket.

Photodocumentation was used in a literature review to cite sources of inspiration from: Fortuny designs of the 1930's; natural form (Ginko leaf); Japanese family crest based on Ginko leaves; a jacket by Zandra Rhodes. Further, all phases of design development and production were documented with photography. By comparing photographs of the finished design to the stated objectives, preliminary evaluation was established. Further evaluation will be undertaken to establish consumer satisfaction with the design, and the permanence of fortuny pleats.

VISUAL PREFERENCES AND DESIGN SOLUTIONS FOR OLDER ADULT FEMALES: A PROBLEM SOLVING APPROACH

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The clothing choices for older adult females are limited. Although there may be designs available that are desirable, the difficulty comes in finding something that fits. Body forms of the aging female go through changes that the apparel industry has not yet caught up with in terms of fit and sizing. Therefore, a high level of frustration has resulted among this population. In response to this problem current research is being conducted, by researchers in Arizona, to measure older female bodies in order to advise apparel manufacturers on making changes in sizing systems. In addition to this effort, there is still a need to address the problem of limited clothing choices. This design research project identifies and develops design features that are based on meeting the aesthetic and functional clothing needs of this specific consumer culture.

Two hundred women over age fifty five, and from varying ethnic backgrounds, participated in this project. They responded to interview questions and were photographed. Among the questions they were asked were: "What do you like about what you are wearing today? What do you dislike? What clothing design features would you like to see developed for today's marketplace that is currently not available?". Many of the participants in the study were very verbal and had a list of ideas. It was clear that they saw the problem to be acute.

A content analysis of the data was conducted, as well as a visual assessment of the photographs of each respondent. The results were then used as a basis for design. A line of casual daywear was designed to meet the needs identified by the subjects. A total of eight garments were developed. Many of the design features were developed from suggestions given by the participants in the study. Others came from the visual analysis in combination with comments from other questions. The designs were evaluated by a focus group of five women representing this specific consumer culture. Prototypes were then developed.

The results from this project are useful to designers and manufacturers of clothing for older adult women. However, in addition, this design research demonstrates a holistic approach to design problem solving that consults the end consumer and includes their viewpoint in the development process.
Measuring Visual Characteristics of Clothed Appearances

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A multi-item measure was developed to assess characteristics and qualities of clothed bodies that had been evaluated by personnel interviewers as highly appropriate to inappropriate for management-level interview situations. The development, use, and reliability of the measure were reported.

Fifteen categorical ratings and 27 interval scales were developed from concepts proposed by previous researchers. Some scales developed by DeLong (1987) were used, and new scales were developed to measure additional components of her concepts. Other concepts were adapted from previous work into measures of principles of design and physical characteristics of apparel. Munsell (1929) system measures of color characteristics were included and compared to measurements via machine, i.e., a tristimulus colorimeter.

The multi-item measure was used by three trained judges to assess characteristics of 174 photographed clothed bodies. Development of items, training of judges, refinement of scales and categories during initial use of the measure, reliability (percent agreement on discrete categories and Cohen's kappa (1968) for scaled items), and method of negotiation of disagreements were presented.

All but one item had .92 or greater inter-rater reliability. Suggestion for improvement of reliability (r=.61) of the visual emphasis discrete categories was presented. Expansion of the system to a wide variety of clothed bodies will reduce relativism of the system to the present stimulus array.

Items in the measure assess both global and atomistic aspects of design. The measure has potential usefulness for researchers in social, aesthetics, historical, anthropological, consumer behavior, and merchandising (i.e., buyer decision and product development) areas.

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DRESS AND THE NEGOTIATION OF GENDER IN KALABARI WOMEN'S SOCIETIES
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This study describes and analyzes dress in Nigerian Kalabari women's societies or eremne-ogbo, to demonstrate that dress is a form of visual communication that identifies diverse and changing gender roles among Kalabari women. The Kalabari are an Ijo subgroup residing in three principal towns of the Niger River delta of Southern Nigeria: Abonnema, Bakana, and Buguma as well as several smaller villages. Eremne-ogbo are dance groups for Kalabari women that have existed since before the 1920s, but proliferated after the Nigerian Civil War in the 1970s. Not all Kalabari women are members of eremne-ogbo, although a large percentage appear to belong. Members dress in "uniforms" consisting of a matching wrapper set, blouse, jewelry, and head tie or hat, which identifies their membership within a particular organization.

Historic, economic, and sociocultural events occurring after 1960 have directly influenced the development of Kalabari women's societies and symbolic importance of their dress. Skills acquired by women during the Civil War helped them to become more financially autonomous from their roles in marriage or kinship. A prosperous economic environment in Nigeria in the 1970s and early 1980s supported women in their efforts to become successful traders and businesswomen. Eremne-ogbo proliferated during this period and are a visual display of women's social and economic success and social status within Kalabari society. For example, members of Asari Tomina Ereme, or "Prominent Women of Buguma" are recognized in the Kalabari community for their consistent use of opulent attire.

Conclusions of my study demonstrate that dress for members of eremne-ogbo visually reflects and reinforces changes in the social construction of gender. As cultural roles for members of eremne-ogbo move in the direction of economic, social, and political achievement, their dress reflects this progress. For example, indigo, or embroidered velvet cloth imported from India was historically reserved for Kalabari men. Currently, it is purchased and worn by members of more affluent women's societies such as Asari Tomina Ereme. Social control of women, visually defined and reinforced through gendered patterns of dress has helped protect the social, political, and economic domains of Kalabari men. Dress in eremne-ogbo symbolically reflects how social construction of gender and economic achievement of women are being re-negotiated within Kalabari society at the level of the body.

A LONGITUDINAL STUDY ON CLOTHING SATISFACTION BY DISCONFIRMATION PARADIGM
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The purpose of our study is to build a causal model on clothing satisfaction by disconfirmation paradigm. The longitudinal survey is conducted to evaluate disconfirmation of the expectations, and path analysis is used to test the model. Brand levels (high-price brand vs. moderate-price brand) and consumer characteristics (high clothing involvement vs. low clothing involvement) are selected as moderating variables. In this study, the expectations are broken down into two dimensions. One is the normative expectation that consumers get based on the cost and the effort they invest, and the other is the predictive expectation that consumers get based on their preestimation of the performance.

The longitudinal surveys are carried out at Seoul and Pusan in Korea. In the first survey, clothing product expectations are measured by the intercept field survey at point of purchase. In the second survey, which is conducted after 6 to 8 weeks by follow-up mail, perceived performances and satisfactions are measured. The subjects of 362 women, who has completed both surveys, are used for the final analysis. The results of the analysis are as follows;

1. The major path of the clothing satisfaction is from brand level and consumer involvement → expectations → perceived performance (→ disconfirmation) → clothing satisfaction. This path explains 70% of the clothing satisfaction variance.

2. When the expectations are divided into two subdimensions, the normative expectation exhibits the contrast effect on the disconfirmation, while the predictive expectation exhibits the assimilation effect on the perceived product performance, indicating that those two dimensions are functioning differently in the satisfaction constructs.

3. The clothing satisfaction model differs by brand levels as well as by consumer involvement levels. The most critical direct variable is the perceived performance in the high-price brand, while it is the disconfirmation in the moderate-price brand. The model explains 77% of the clothing satisfaction variance in the high involvement consumer group, and 54% in the low involvement consumer group, indicating that the disconfirmation paradigm is more applicable to the high involvement consumers.

In conclusion, we find that the clothing satisfaction is determined by all three constructs; the expectation, the perceived performance, and the disconfirmation.
UNDERSTANDING CONSUMER SATISFACTION WITH APPAREL PRODUCTS AT THE ALTERNATIVE EVALUATION STAGE

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Despite some early perspectives which suggested a broader conceptual framework of consumer satisfaction (Renoux, 1973), most of the published research has focused on consumer satisfaction in regard to postpurchase evaluation of product performance. Yet, an understanding of consumer satisfaction regarding other segments of the distribution channel, such as retailing, and other stages of the consumption process, such as alternative evaluation, are equally significant.

The specific objective of this study was to identify whether the difference between what is perceived to be important by consumers (evaluation) and what is perceived to be provided by marketers (belief), i.e., perceived availability of product alternatives, is related to consumer satisfaction at the alternative evaluation stage. Utilizing a self-administered mail survey method in conjunction with a random sampling technique, 5,000 questionnaires were sent out nationwide, and a total of 2,057 completed questionnaires (41.08%) were returned to the researcher.

The results indicated that for all of the 15 selected clothing attributes and a composite measure, which was a summation of all 15 ratings, the difference between evaluation and belief was significantly related to satisfaction. In other words, when belief exceeded evaluation, consumers were satisfied, and when the opposite took place, consumers were dissatisfied.

Since not all of the need recognized by the consumer will become a product purchase, and its partial cause may be the dissatisfaction experienced by too few product alternatives, an evaluation of satisfaction with postpurchase product performance alone does not provide sufficient information to optimize market opportunities. The method employed in this study might also be extended to investigate consumer satisfaction at other stages of the consumer decision-making process.


CONSUMER SATISFACTION BASED ON POST-PURCHASE EVALUATION

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Consumers' evaluations of products begin at time of purchase and continue actively into the post-purchase period. Satisfaction/dissatisfaction is an outcome from the cognitive evaluation of products (Oliver, 1980). The purpose of the present study was to investigate consumers satisfaction with apparel and to examine willingness to repeat purchase.

Three hundred consumers who had placed an order for any one of three specific dresses from Lands' End formed the sample for this study. A questionnaire was mailed at the time of ordering the dress. The questionnaire measured consumers' benefits in shopping with Lands' End, expectations on 61 clothing attributes, and demographic information. A second questionnaire was mailed six weeks after the initial contact to all respondents who completed the first questionnaire. The response rate was 72%. The second questionnaire measured consumers' perceptions of the performance of the dress on 61 attributes, consumer satisfaction on four items, years of experience in buying from Lands' End, and willingness to buy again.

Four factors emerged in principal component analysis of benefit items: Product and Services, Accessibility, Selection, and Cost of Direct Mail. The four factors that emerged for confirmation/disconfirmation were Appearance, Physical Performance, Expressive, and Individuality. The overall satisfaction with the dress was examined using stepwise regression. A satisfaction index was regressed with the factor scores of benefits, factor scores of confirmation/disconfirmation, demographics, and years of experience in shopping with Lands' End. Satisfaction was described by two benefit factors: Product and Services and Selection; two clothing attribute factors: Expressive and Appearance; and age. Satisfaction with the dress and willingness to repeat purchase were highly correlated.

VISUAL COMPUTER SIMULATION IN APPAREL PRODUCTION

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A prototype of a computer simulation has been developed to teach apparel production layout design and costing to fashion design students. A colour graphics display of a simulated factory layout includes gauges, graphs and a costing sheet to show the flow of goods and the associated costs.

In apparel design programs students typically manufacture only one of each design so there is no link between the design of a garment and the cost of production on a larger scale - a critical link in industry.

Setting up assembly lines in the classroom to teach production concepts would be impractical. Visits to production sites are useful, but stop short of allowing students to design and test alternative production strategies. Computer simulation provides a safe, efficient, cost-effective tool for teaching basic production concepts and solving problems related to production costs.

Students use the simulation by selecting options from menus with a mouse. Selecting a scenario displays a layout of a factory floor with sewing machines representing the steps in the construction of the garment. A spreadsheet in one corner of the screen displays the average times for completing each step. Each sewing machine has two gauges which rise and fall with the flow of parts in and out of the workstation. A graph in another corner of the screen monitors aggregate production. Each run is different because the underlying model is a simulation driven by probabilities. A help option provides assistance with the use of the program and the mathematical calculations.

Students who used the simulation provided overwhelmingly positive feedback. Some students had predictable problems with the math involved, but most indicated that the simulation made the process more real to them and made the calculations make sense. The enthusiasm displayed by the students and the surprisingly deep nature of the discussion that followed convinced the author that this teaching strategy was worth the effort and has considerable future potential.

Planned extensions for the simulation include student configurable layouts and the typical production problems of employee absenteeism and machine breakdown.

BUILDING PARTNERSHIPS WITH INDUSTRY

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Building partnerships between educational institutions and the apparel industry is a major interest to college educators. The Fashion Merchandising program is currently collaborating with the Apparel Computer Integrated Manufacturing (A-CIM) Center in an effort to develop partnerships between academia and local apparel manufacturers. The A-CIM Center, established in 1988 on the campus by the state of Louisiana and the American Apparel Manufacturers Association, houses a representative sample of various apparel CAD/CAM equipment. The center facilitates hands on experimentation in the areas of pattern designing, grading, marking, cutting, Unit Production System (UPS), and pressing for educational and research purposes.

This paper discusses a nontraditional instruction program that is designed by academia for local apparel manufacturers. The main objective of the program is to assist small apparel manufacturers who can not afford computer technologies in their design and production facilities. The program includes (1) identifying a company's needs/wants, (2) planning the company's production plan (3) testing the feasibility of the tentative production plans, and (4) executing actual production plans.

The uniqueness of this program is that each plan is individually customized in order to meet each manufacturer's special needs. Currently faculty and a graduate student from the Fashion Merchandising program are working closely with two local manufacturers. Company P manufactures medical supplies (e.g. supportive belts, girdles, shaped pillows, etc.) in New Orleans and Lafayette, Louisiana. Company Q produces workclothes (e.g. uniforms, overalls, etc.) in Eunice, Louisiana. The companies had been relying on manual production marker-making and cutting before they began their partnerships with the A-CIM center.

By utilizing state-of-the-art CAD/CAM equipment throughout the partnerships, however, they have now developed more cost- and time-efficient production plans. In the long run these unique partnerships hold the promise of future economic and technological advancements for the apparel industry in Louisiana.
2-D AND 3-D APPAREL DESIGN: 
INTERRELATIONSHIP VIA ANIMATED 
COMPUTER GRAPHICS

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Our current apparel design curriculum begins
with a course in visual communication of apparel
design followed by flat patternmaking, draping and
functional design. While instructing the first course in
this sequence I have often wished for the impossible -- to teach all four courses simultaneously. Without
patternmaking and draping skills students sometimes
fail to understand the premises for creating feasible
apparel designs on paper. Creative designs many
times overlook practical issues, such as how the
structural silhouette is achieved or how the human is
going into the garment. This lack of student
understanding created the desire to instruct beginning
students in just enough advanced design to give
them the necessary information for creating viable
apparel designs.

A computer tutorial was the instructional
method chosen since it would allow for consistent
presentation of written and graphical information.
Objectives for this computer tutorial included: 1) describing the human body and the interplay between
two-dimensional and three-dimensional apparel
design, 2) using extensive graphics and animation to
visually portray this interrelationship rather than just
describing it and leaving the visual picture up to the
students imaginations, and 3) authoring a program to
allow students to progress at their own pace.

"The Interrelationship between 2-D and 3-D
Apparel Design", developed using Hypercard for the
Macintosh, includes discussion of the human form
and explanation of the shapes needed to conform to
the torso, arm and leg forms. Animation shows the
conversion of fabric shapes to apparel forms and
moving to cover the human form. For example, the
form of the arm is discussed followed by explanation of
the fabric shape necessary to cover such a form.
Next, the sleeve pattern shape is shown which, by
animation, circles to become a sleeve
cylinder. This sleeve then travels over the hand and
up the arm sliding on top of the shoulder. In addition
to being able to move forward and backward through
animations, students can pace themselves and
choose any path they wish through the tutorial due to
script commands.

Student reactions to the developed software
were very positive. Many indicated the graphics and
animations were the strongest feature of the tutorial.
Other responses revealed the fit of the fabric shape
was easy to understand once the human form was
analyzed.

THE ROLE OF QUALITY IN THE
STRATEGIC MANAGEMENT PRACTICES OF
U.S. RETAIL COMPANIES

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The concept of quality has increasingly been focused upon by
marketers and the media alike. International competitiveness is often
framed within the context of quality comparisons.

The purpose of this study was to
analyze the relationship between U.S.
retailers' quality strategies and
other strategic management practices.
Six hundred and fifty-one presidents
and chief executive officers of U.S.
retail companies with an annual sales
volume of $1.5 million or more were
sent mail questionnaires. Wheelen and
Hunger's Strategic Management Model
(1984) was the framework for the
study. Likert-type statements on a
10-point scale ranging from strongly
disagree to strongly agree were used
to assess retailers' strategies.

Results indicated that retailers'
quality strategies were significantly related to improving service standards
(r = .63), increasing return on
investment (r = .60), and improving
relations with suppliers (r = .53).
Quality strategies were not
significantly related to company size
in terms of sales volume, number of
employees, number of stores owned,
ownership patterns, location or store
type. Multiple regression analyses
revealed the best predictor for a
quality strategy was improving
relations with suppliers, service
strategies were best predicted from
quality strategies, and return on
investment strategies were best
predicted from service strategies.
Thus, U.S. retailers appear to be
using improved relations with
suppliers as a way to improve quality,
hoping for improved service and
ultimately return on investment.

Wheelen, T. L., & Hunger, J. D.
Reading, MA: Addison-Wesley.
QUICK RESPONSE PARTNERSHIPS - RETAILERS AND MANUFACTURERS

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Market segments, vertically linked by corporate structure, have reaped benefits from improved information flow, better inventory control and timely delivery of products (Tulle & Kahle, 1990). Quick Response (QR) partnerships should duplicate the positive energies. Cooperative relations are a reversal from past adversarial relationships, and workable linkages are not easily formed.

This research purposed to identify changes incurred by and characteristics of QR partnerships. Interviews with textile, apparel and retail personnel were used to develop the questionnaire which was pretested and refined. Questions covered QR activities, production changes and demographics. A random sample for the ex post factor survey was from a major apparel manufacturing area. Responses were received from 68 plant managers (59% return). Data was analyzed using ANOVAs.

About their partnerships with retailers, plant managers noted major business practice changes. Improvements in product quality and reductions of inventory were experienced by most manufacturers, regardless of retail customer. Manufacturers experienced an increase in customer involvement in product planning. Partnerships were more often formed between apparel manufacturers and limited line stores or mass merchants. Manufacturers in QR partnerships with mass merchants had experienced increases in numbers of orders but decreases in size of each order. Type of retail customer was related to EDI implementation.

Manufacturers and retailers, in QR partnership, are changing the way they do business. Decreased inventory levels and order size can provide fresh stock and improved finances for retailers. Although changes occur with any QR practices, partnerships do vary by profile of business partners. Professionals entering the field must be able to form and propagate these important partnerships. Tulle, D. & Kahle, L. (1990). Marketing Management. NY: Macmillan Co.

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TECHNOLOGY INNOVATIVENESS AND ADOPTER CATEGORIES OF APPAREL/GIFT RETAILERS: FROM THE DIFFUSION OF INNOVATIONS PERSPECTIVE

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This study proposed that five adopter categories of technology innovativeness differ in terms of perceived characteristics of innovation, individual and organizational characteristics. Out of 4,000 questionnaires mailed, a total of 804 usable questionnaires was returned from buyers, managers, or owners of apparel and gift shops located in five western states. In order to classify each respondent into an adopter category, Technology Innovativeness (TI) Index was developed by the researchers and was formulated as:

$$\text{TI} = \sum_{i=1}^{n} A_i \times T_i$$

(where: n = the number of technology items, $A_i$ = adoption of the i-th item, $T_i$ = time of adoption of the i-th item). Respondents were asked to indicate what retail technology items they had adopted among 10 items and how long they had used each item. Using two parameters (Χ and sd), respondents were classified into five categories: Innovators (6%), Early Adopters (8.1%), Early Majority (20.6%), Late Majority (41%), and Laggards/Non-adopters (28.2%)

Multivariate and univariate analysis of variance with Tukey's HSD test revealed that these five groups differed overall on perceived characteristics of innovation (F=9.90), individual characteristics (F=5.60), and organizational characteristics (F=7.8), at the significance level of .001. As compared to the later/non-adopters, innovators/earlier adopters tended (a) to perceive greater relative advantage, compatibility, and observability regarding retail technology; (b) to seek information more actively, to be younger, to have a higher education, to be male, to have formal computer training, to have longer retail experience, to attend seminars more frequently, to perceive their profitability to be high; and (c) to have greater store sales volume, to be located in a larger city, to feel more competitiveness, and to have higher actual profitability.
FACTORs AFFECTING THE MAINTAINED MARKUP PERCENTAGE OF NATIONAL APPAREL BRANDS

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National apparel brands have an important strategic role in department stores because they are sought by the consumer and help to validate the product offerings of the firm. Determining the factors which affect national apparel brand maintained markup percentage is a challenge for retail buyers who are competing in this environment.

The purpose of this study was to examine which merchandise requirements (MR) and supplier accessibility factors (SA) affect maintained markup percentage (MM%). The dependent variable, maintained markup percentage (MM%), was calculated from information provided by the retailer. The independent variables, MR and SA, were adapted from Sheth’s (1981) theory. A self-administered survey was developed and surveys were sent to a national sample of department store buyers who purchased women’s sportswear as identified in Sheldon’s Retail Directory. A total of 120 useable surveys were returned with 84 surveys used in this analysis.

Factor analysis was performed on the 28 vendor selection criteria items and yielded four reliable factors which were used as the refined independent variables: Competitive Structure, Relative Marketing Effort, Vendor Characteristics, and Corporate Image. Results from ANCOVA indicated that two MR (type of merchandise sold, product positioning) and two SA factors (Vendor Characteristics, Corporate Image) explained a significant amount of the variability in MM% (p = 0.0001). As the importance of Vendor Characteristics and Corporate Image increased, MM% decreased. This suggests that in the short term, buyers are more interested in having quality products and delivery (Vendor Characteristics) and reputable brands (Corporate Image) than in MM%.

Results from this study can benefit retail buyers who gain a better understanding of the MR and SA factors which impact MM%. Vendor benefits include a better understanding of the factors which are important to retail buyers when selecting a vendor.


THE THIN IDEAL:
A MATTER OF PROPORTION AND HISTORY

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Women today are slaves to dieting and eating disorders in order to achieve the thin, long-bodied ideal of female beauty. Writers claim this ideal began with Twiggy in the 1960s. Actually, the clothed long, willowy female figure we admire predates Twiggy in unbroken line by some eight centuries and is not so much a feature of thinness as it is of proportion.

Life drawing classes teach that the human body measures 7 1/2 heads in height to achieve the correct proportion for realistic rendering. However, fashion illustration creates a body from 8 1/2 to 10 heads high to create the more graceful proportion of the fashion figure. This elongation is based on the small head (poor implications for women here) and is a function of art rather than of body structure. It is an ideal we accept as natural and desirable, even though it represents a distortion that is unrealistic and unattainable.

Art history’s images of women over time provide insight into the origin of this distortion. The elongated human form, often extended by means of elegant drapery in the form of clothing, appeared throughout history, although the advent of photography in the mid-nineteenth century influenced artistic imagery during that time to reflect a slightly more realistic proportion. Chartres Cathedral’s 12th Century statury ultimately first revealed a newly distorted, however graceful, proportion. The small-headed, slim, long figure, 10 heads high, was for women only; the accompanying men retained the 7 1/2-head natural proportion.

This model has been with us ever since. Our eye has been subliminally trained by 850 years of exposure to art and more recently, by photography to create a cultural aesthetic for women's bodies. Today, though models are selected for height, length of leg and extreme thinness, they are often not photographed full length because their bodies are proportioned, by definition, closer to the 7 1/2-head norm, and our eye tends to see them as short-legged and dumpy. However, camera point-of-view and lens distortion, poses, retouching and computer enhancing of photographic images all manipulate our vision. The result is that we are given an utterly impossible ideal to aim for, one based on proportion rather than weight, but one ultimately bound by bone and human physiological design.
CLOTHING EXPORTED FROM ENGLAND TO 18C BRITISH COLONIES IN AMERICA
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The purpose of this research was to examine original 17C and 18C English manuscripts to determine if clothing items were among the exports sent by England to the British colonies in America, to identify types and learn something of the quantity.

Original manuscripts examined were in the Public Records Office, the Additional Manuscript Room in the British Museum, London and the Bodleian Library, Oxford, England. Manuscripts show 17C records of exports going to the English "Plantations" in America were not the responsibility of any governing body with any consistent pattern. This pattern changed in 1696 with the establishment of the Office of Inspector-General of Imports and Exports.

Analysis of the Inspector-General's records from 1697 to 1775 show apparel parcels exported to each colony but not each year. The number of apparel parcels is given but no information about size, weight or type. Virginia and Maryland received the largest number as well as hats and caps. New York received the largest number of stockings. Beaver hats and worsted stockings exported into the Colonies peaked in 1760. Clothing appearing less frequently were woolen britches, gowns, waistcoats, bodices, coats, silk handkerchiefs, stays, hoops and buttons.

Little correlation can be drawn between population and quantity of clothing received. No consistent method was used for counting population.

Analysis of the 18C English manuscripts show clothing was exported from England to the British Colonies in America. Varying in types and quantity, there was an overall increase to the 1760's with a general reduction in the 1770's. The deteriorating relationship and the threat of war between England and the American Colonies influenced the exports.

THE NEZ PERCE WING DRESS:
TRANSITION FROM ABORIGINAL DRESS TO EUROAMERICAN FASHION
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Material goods introduced by whites were adopted and modified by the Nez Perce to suit their culture and values. When traders appeared with Euroamerican goods, Nez Perce women began utilizing cloth as well as animal skin for their dress. Wing dress development from aboriginal skin dress to Euroamerican fashionable dress, and the relationship between Nez Perce acculturation and evolution of the wing dress were traced. Methods included content analysis of historic photographs depicting Nez Perce women, explorers' and missionaries' writings, anthropological field studies of Nez Perce culture, and examination of extant Nez Perce skin and wing dresses.

The wing dress was patterned after the skin dress in form and ornamentation. The typical skin dress was made of two large animal skins placed with hind ends at the garment top so that the rear legs became elbow length sleeves. Skin dresses were seamed along the shoulders and below the arms. A yoke was created by folding over the skins at the top with the animal tail centered at the neck. The body of the wing dress was made of two rectangles the width of the fabric. Triangular panels sewn to the sides of the front and back panels allowed fullness in the skirt and simulated the shape of the skin dress. Rectangular sleeves attached kimono style were left open at the underarm, hence, the name "wing" dress.

The wing dress appeared in the mid 19th century. Wool, corduroy, and velvet in solid dark colors were utilized in this early version. Cotton plaids, stripes, and prints appeared later. Trims and decorations common to both skin and wing dresses included elk's teeth, shells, fur tails, fringe, ribbon, sequins, beads, and bells. Wing dresses made of patterned fabrics were untrimmed or had ribbon outlining the sleeves and hem. The natural skin shape, the yoke, and triangular tail of the skin dress were repeated through decorative elements on the wing dress.

Acculturation of the Nez Perce is evident in the evolution of both skin and wing dress. Greater use of manmade trims appeared as Nez Percies interacted with whites. Nez Perce accepted Euroamerican dress, but continued to wear traditional dress for special tribal occasions.
ARTISTS' DRESS IN PARIS
OF THE EARLY 1890s
AND THE PRESENTATION OF SELF

Susannah Worth

Dress is the primary means by which the individual presents himself to the world. If dress is a form of non-verbal communication then it seems probable that artists in the visual arts would be good non-verbal communicators. This study attempts to verify this assumption by an examination of the dress and presentation of self of two groups of artists who lived or exhibited in Paris during the early 1890s.

The French art world of late nineteenth century Paris was divided into two groups, those who exhibited at the officially sanctioned annual Salon and the avant-garde who were outside of the official system. Avant garde artist exhibited at the Salon des Independents.

Self-portraits and photographs of artists in their studios were used. The formality/informality of the artists' dress and the way in which the artists presented themselves were examined. "Presentation of self" included: the artist at work, the artist as artisan, the artist as scholar or connoisseur, and the artist as a man of leisure. Background factors which were considered were nationality, group affiliation, media, and genre.

It was determined that artists who exhibited at the official Salons were (or wished to be) viewed as scholars, connoisseurs and members of the upper classes. Some avant garde artists dressed in a similar manner. However other avant garde artists found dress as a means of expressing their individuality, marginality, and artistic philosophies.

U.S. APPAREL MANUFACTURING:
TOWARD A GLOBAL MARKETING STRATEGY
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This paper presents a conceptual model of international consumer decision making which may serve as a strategic guide for U.S. apparel manufacturers attempting to establish their export business and enhance their global market share and competitiveness. The model would allow apparel manufacturing firms to design global products and localized marketing strategies that combine the advantages of both globalization and localization. The model has four key dimensions: (1) the nature and degree of consumer involvement in the product category, (2) the level and source of consumer product knowledge and speed of learning about new products, (3) culture context (i.e., emphasis on interpersonal relationships vs. emphasis on time and formal agreements), and (4) diffusion (i.e., the pattern and speed of adoption of new products). The first two -- involvement and learning--deal with micro aspects of consumer behavior and may be conceptualized as an involvement/learning matrix, whereas the second two deal with macro or cultural aspects.

Involvement and product knowledge/learning may be combined to better predict how consumers in a specific market will respond to particular marketing strategies. Even if the physical product is the same, the peripheral aspects of the product, i.e., channel distribution, promotion, service, or price may require modification for international markets.

The key to an effective marketing strategy is to understand and capitalize on the unique market characteristics of different cultures, therefore the culture/diffusion relationship also has important implications for marketing apparel products internationally. Both culture and diffusion will impact the pattern and speed of acceptance for new apparel products in a particular market and have important strategic implications for apparel marketers.

The conceptual model presented here provides a guide for developing global apparel products which can be adjusted to local needs and marketed on the basis of product knowledge/learning, involvement, culture, and diffusion concepts.
COMMUNICATIONS ACROSS DISTRIBUTION CHANNELS IN THE CANADIAN APPAREL INDUSTRY

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The Canadian apparel industry faces challenges from low cost imports, economic recession and Free Trade. Superior marketing skills are essential for survival. The many small apparel firms in the Canadian industry are supplied by a handful of domestic textile producers augmented by imports, and their products are distributed to a retail market dominated by a few large chains.

The objectives of this study were: 1) to qualitatively analyze the marketing and planning activities in the industry, and 2) to describe the relationships between textile and apparel manufacturers, importers and retailers. Content analysis of personal interviews with representatives of the upper management of 31 apparel firms, seven textile firms, nine textile/apparel importers, and nine major chain retailers, revealed the following themes.

Many firms were competing across channel lines. While there was little vertical integration, many had broadened their mandates beyond traditional boundaries: textile manufacturers were importing fabrics; apparel manufacturers were importing fabrics and finished apparel, and a few were retailing; retailers were sourcing fabrics, contracting apparel manufacturing, both off-shore and domestically, and importing finished apparel. All saw retailers as the prime influence on what was produced and supplied. Primary textile producers tried to minimize risk by contacting major retailers for direction and commitments. Apparel manufacturers too frequently defined their customers as the retailers rather than as the ultimate consumers. Retailers had assumed much of the responsibility for product planning, production and marketing as shown by the increasing amount of contracting of private label goods. Nearly all channel members were aware of Quick Response (QR) and Electronic Data Interchange (EDI), but only three firms - one textile and one apparel manufacturer, and one retailer, had taken steps toward introduction.

In conclusion, while all were communicating in the traditional business sense, there was a lack of the necessary trust between channel members to develop team liaisons that would allow a true marketing orientation to prevail. The building of trusting partnerships across channel lines will be the challenge to future success.

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IMPACT ON THE UNITED STATES OF THE NORTH AMERICAN FREE TRADE AGREEMENT: THE CASE OF MEXICO

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Between 1980 and 1990, U.S. apparel imports from Mexico tripled. In 1990, Mexico was the sixth largest foreign supplier of textiles and apparel to the U.S. market with over 90 percent of the apparel imports entering under U.S. Tariff Schedule Items 807 and 807A. With the proposed North American Free Trade Agreement being readied for presentation to the U.S. Congress, it is important to empirically analyze U.S. demand for Mexican apparel imports.

The purposes of the current research were to examine the factors influencing U.S. demand for 807 and 807A apparel imports from Mexico and to determine the price and income elasticities of the demand. While several studies have been undertaken to determine the elasticity of demand for imports worldwide, country-specific estimates of price and income elasticity for apparel imports are rare.

An econometric model of demand for Mexican 807 and 807A apparel imports was designed with apparel imports in square yard equivalents being the dependent variable and U.S. aggregate disposable income and a relative price index of Mexican apparel imports and U.S. apparel the independent variables. Monthly time series data for January, 1984 through December, 1989 were used, and the model was initially estimated using OLS regression, with the data transformed to correct for autocorrelation of the error term.

The results indicated a significant relationship existed between the volume of apparel imports and U.S. disposable income and relative price. The adjusted R² of 0.863 indicated the model accounted for the majority of variation in apparel imports during this time period. Both independent variables were found to be statistically significant at the .0001 level.

Transforming the model into a log-linear function produced estimates of the income and price elasticities of demand for Mexican apparel imports. The income elasticity of demand was estimated to be 2.256, indicating that a one percent increase in aggregate disposable income would be expected to yield a 2.256 percent increase in U.S. apparel imports from Mexico. The estimate of the price elasticity of demand was - 1.197, indicating that a one percent increase in the relative price of Mexican apparel imports would result in a 1.197 percent decrease in U.S. imports of 807 and 807A apparel.
GROWTH POTENTIAL FOR THE DOMINICAN REPUBLIC'S APPAREL INDUSTRY: PERCEPTIONS OF MANUFACTURERS

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Approximately 80% of the Dominican Republic's apparel exports go to the U.S. The Dominican industry has experienced continuous and substantial growth since 1979 when its first bilateral trade agreement with the U.S. was negotiated. Further export incentives were provided by the trade policies popularly known as 807 and 807A.

Concerns have arisen, however, because of shifts in existing economic trade blocs and the proposed formation of new ones. Of particular concern to the Dominican Republic is the proposed North American Free Trade Agreement (NAFTA) that may diminish significantly expected exports and growth of its apparel industry. The purpose of this study is to analyze perceptions of Dominican apparel manufacturers regarding industry growth and export potential especially as it may be affected by Dominican policy and by U.S. trade policy for the Caribbean.

Multiple methods and data sources (triangulation) were used in order to strengthen validity through congruence and/or complementarity of results from each. Documentary data (government policies and trade statistics) and interviews data were collected. Interviews were conducted with a randomly selected cluster sample of managers of 100 Dominican apparel manufacturers located in industrial free zone parks and special free zone parks. Managers' attitudes toward existing U.S. trade policy, Dominican industrial and export policies, and perceptions of the industry's potential for growth were assessed by means of a questionnaire. Results were analyzed both quantitatively and qualitatively; this paper reports only on the latter. A framework for analysis was provided by development theory and trade theory.

Managers' responses indicated some dissatisfaction with their companies' current performances, as well as serious concerns. They indicated belief that opportunities for growth exist in improving product quality, increasing productivity and efficiency, implementing new technology, and improving employees' training. These are threatened, however, by factors both inside and outside the Dominican Republic. Perceived internal problems are the lack of a reliable power supply, a strengthening labor movement, the educational and skill levels of labor, attracting foreign investment, possible new government taxes on industry, and excessive customs bureaucracy. Externally, concerns were expressed regarding U.S. quota policy, upcoming bilateral trade agreement negotiations, and increasing competition among Latin American countries. These results, which have implications for Dominican industry strategy and possibly for positions that will be taken in future policy talks with the U.S., are analyzed in terms of these applications.

AN OBJECTIVE EVALUATION OF COLOR LEVELNESS

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In addition to the requirement of high levelness of piece colored textiles, the demands of unevenly colored textiles are greatly increased. The evaluation and control of the quality of these different kinds of appearance inquires the colorist to develop an objective method for the quantitative assessment of color levelness.

We report a method of using normal spectrophotometer to determine the color levelness. The levelness parameter(L) can be easily obtained from the sample standard deviation of K/S values (Garland, 1983) in different places of the fabric with the consideration of the photopic spectral luminous efficiency function (Wyszecki & Stiles, 1982).

\[ L = 1.20 \times \left[ 2.00 - \ln \left( \sum_{\lambda \in \text{D} \lambda} S_r(\lambda) \times V(\lambda) \right) \right] \]

where \( S_r(\lambda) \) is the relative sample standard deviation of K/S values measured from different places of the fabric, and \( V(\lambda) \) is the spectral luminous efficiency function (Wyszecki & Stiles, 1982).

For most of the colorations, L value is in the range of 1 to 5. The larger the L value, the better the color levelness. This rating corresponds to the eye observation and is very similar to the five grade ratings for many of the textile test methods (AATCC Evaluation Procedure 1, 1989). Therefore it is easy to remember and to apply.

The influences of the sample size (\( \text{A}^{2/3} \)), levelness of the sample (L), and the numbers of measurement (N) on the accuracy of the levelness assessment are also discussed statistically. If we use the relative sample standard deviation of L value (S) to describe the accuracy of the levelness measurement, we have

\[ S = (1.37 + 0.12) \times \left( \frac{1}{N} \right)^{1.75} \times L^{-0.66} \times \left( \frac{0.66 - 0.25}{\lambda} \right) \]

Using this equation, we can calculate the test times and the sample size required to obtain a given accuracy of the levelness measurement.

References


CO-APPLICATION OF DURABLE PRESS RESIN AND DYE TO COTTON FABRICS
WET PICK-UP METHOD
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The purpose of this study was to examine the reaction mechanism and feasibility of the co-application of the durable press resin and dye to cotton fabrics by energy saving low wet pick-up methods.

Dimethyldihydroxyethylene-urea (DMDHEU) resin and Procion H fiber reactive dye formulations were applied to two types of 100% cotton fabrics, print cloth and broadcloth, utilizing padding and foam finishing technology (FFT). A Perkin Elmer Differential Scan Colorimeter (DSC) analysis was used to examine the thermal activities of the treated fabrics. A Kjeldahl nitrogen analysis, wrinkle recovery angle test (AATCC 66), and tear resistance test (ASTM D1424-81) were performed to determine the performances of DMDHEU resin, and various colorfastness tests including AATCC procedures 8, 15, 16A, 61 and 107 were also performed.

The results of DSC analysis indicate that the co-application of DMDHEU resin and Procion H dye to cotton fabrics is possible due to the SN2 type of chemical reaction.

The optimum level of DMDHEU resin add-on is as low as seven percent on the weight of fabric. Fabrics with DMDHEU add-on higher than 7 percent failed to result in neither better wrinkle recovery nor improved colorfastness. In addition to this, the tear strength was significantly reduced at add-on levels nine or higher.

The concentration of the catalyst in this co-application of DMDHEU resin and Procion H fiber reactive dye is critical in maintaining the pH of the dye bath. A catalyst concentration lower than 40% on the weight of the DMDHEU did not result in an acceptable degree of wrinkle recovery or color fixation.

By using FFT, fabrics can be treated at a wet pick-up level as low as 33%. This low wet pick-up foam finished fabric showed as high a level of wrinkle recovery and colorfastness as the fabrics finished by padding at 75% wet pick-up level. Due to this low wet pick-up, foam finished fabrics can be cured without the energy consuming predrying step. Foam finished fabric which was cured only for two minutes at 375°F resulted in the same high performance as the padded fabric which was predried for two minutes before a three minute curing at 375°F.

Types of fabric pretreatment are critical in this co-application of resin and dye. Among the four common types of fabric pretreatments investigated, only sodium hydroxide mercerization resulted in commercially acceptable performance.

The results of this study suggest that co-application of DMDHEU resin and Procion H fiber reactive is an excellent dyeing/finishing technique due to lower consumption of thermal energy, increased process line speed, and high quality fabric performances.

OZONE FADING OF ACID DYED NYLON CARPET YARN
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As a strong oxidizing agent, ozone has the potential to destroy textile colorants. Typical outdoor ozone concentrations, which range from 0 to 0.2 ppm, depending upon the time of year, time of day and geographic location, are sufficient to cause color fading. Indoor ozone concentrations, which are often 50% lower than outdoor concentrations, are also sufficient to destroy colorants. The most dramatic evidence of this is the "Gulf Coast Fading" of nylon carpets in the 1960's. Intensive research effort during this period indicated that the disperse dyes commonly used on carpets at that time were highly susceptible to ozone degradation. These carpet dyes are gradually being replaced by acid dyes, which are more, but not completely, ozone resistant.

The mechanism of ozone fading of acid dyed nylon has not been as thoroughly studied as that of disperse dyes. Despite the fact that ozone fading of dyes still occurs, only a few anthraquinone blue acid dyes have been evaluated for ozone fastness characteristics. As acid dyes continue to replace disperse dyes on nylon carpet, the need for an understanding of the properties of dyes which exhibit both good and poor ozone resistance will become increasingly important.

The purpose of this research was to evaluate the ozone fastness of selected acid dyes on nylon carpet yarn and to examine dye and nylon fiber characteristics which contribute to ozone fastness. Thirteen acid dyes, selected with the assistance of a major carpet manufacturer, were applied to nylon 6,6. The nylon was evaluated in non-heat set, Suessen and Superba heat set forms. Dyed yarns were then exposed to multiple ozone cycles and analyzed for color change, which was then correlated with fiber characteristics such as crystallinity, washfastness, and dye adsorption and desorption isotherms. Significant correlations were found between the degree of ozone fading and nylon heat setting method, and fiber accessibility characteristics such as colorfastness to washing and dye adsorption, and dye characteristics such as molecular weight. These correlations suggest that it may be possible to predict the ozone fading tendency of a dye even before it is applied to a fiber.
OBSERVATIONS OF MECHANISMS FOR SELECTED DYE CARRIERS USING RUTHERFORD BACKSCATTERING SPECTROMETRY

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The addition of some organic solvents, called dye carriers, to the dyebath results in reduced dyeing times and faster rates of dyeing of polyester. However, the mechanisms by which the carriers function are not fully understood. Current belief is that they alter the molecular structure of the polyester and allow increased segmental motion of the polymer chains. This in turn creates temporary voids in the structure through which the dye molecules can diffuse. Recently, it was found that some carriers permanently increase the wettability of the surface of polyester films. The purpose of this study was to examine the mechanisms of two selected dye carriers, anthranilic acid and salicylic acid, by observing their effects on the surface wettability of poly(ethylene terephthalate) film, dye uptake, and dye distribution within the film. Wettability was examined using contact angle measurements; depth of shade was observed using color measurements; and the distribution of the dye within the film was studied using Rutherford backscattering spectrometry (RBS).

RBS is a technique which allows the depth profiling of a heavy element in a thin film. A sample is impinged upon by a beam of helium ions which are scattered back into a detector as they collide with target atoms. When the target atom and the helium ions collide, energy is transferred to the target atom and the helium ion experiences a loss of energy. The amount of energy lost is dependent on the mass of the target atom and its depth from the surface. This allows the distribution of the target atom throughout the material to be observed. In this study the target atom used was the chlorine present in the dye.

Both anthranilic acid and salicylic acid function as dye carriers for polyester. The results of this study show the mechanisms by which they function are the same, but the degree to which they affect surface wettability, dye uptake, and the dye distribution differ. Anthranilic acid increased the surface wettability of the film to a greater extent than the salicylic acid. Salicylic acid was found to cause a greater degree of dye uptake and a more uniform distribution of dye than the anthranilic acid. These differences have been attributed to the differences in molecular interactions between the film, dye and dyebath.

Ongoing work using a tagged carrier and a tagged dye to study the competitive diffusion of the two species in polyester will also be discussed.

FACETS OF MADELEINE VIONNET'S CUT

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The objective of this study was to increase the understanding of the relationship of garment cut to the fabric's shaping around the body, as developed by Madeleine Vionnet. Each artifact was illustrated and photographed from several views. Garment construction techniques were documented using descriptive analysis. Measurements of the garment were taken to produce one-eighth scale diagrams of the pattern pieces for each artifact.

From 40 artifacts studied, a sample of six gowns attributed to Vionnet was selected to illustrate several aspects of Vionnet's cut. The one-eighth scale drawings for these garments were enlarged to one-quarter scale and digitized using a computer aided design software program. The output was plotted, then cut and sewn into fabric replicas to check the accuracy of the overall replication of each design. Analysis was performed by comparing the similarities and differences in the cut with each succeeding garment discussed. The results examined the grain in relationship to the fabric's orientation when worn on the body, and the combination of bias grain with lengthwise grain, crosswise grain, and partial bias grain. Also discussed were the orientation of the grain to stabilize the joining of two edges with differing grains, the use of slashing to create body contour shaping, and the use of insets as facets that exemplify the Vionnet cut. Slashing into a pattern piece accomplished one of two purposes: the slash opened the fabric to allow the insertion of another wider, wedge-shaped piece of fabric, or a wedge shape of fabric was extracted to mold the two opposing edges of the fabric in toward a body contour. Vionnet often combined insets and gussets with slashing to create contour shaping. Insets appear for midriff shaping and neck shaping. Gussets were used for underarm shaping.
INVESTIGATING TWISTED LEG IN DENIM JEANS

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Specifications for side seams and inseams in pants and slacks generally describe a straight line falling from hip/crotch to hem. However, with some garments, seams skew towards the front or back of the leg distorting the shape and appearance of the pant leg. This distortion is known as twisted leg. Denim jeans often exhibit this problem at an estimated cost of hundreds of thousands of dollars a year in terms of seconds and returns. In spite of extensive inhouse research on fabric skew, pattern shapes, and production specifications, the problem remains. This study investigated factors that may contribute to twisted legs by evaluating ready-to-wear jeans.

Twist is measured for each leg by matching inseam and side seam at the crotch, smoothing the pant leg to the hem, and measuring the separation at the hem. For jeans with twist, the separation exceeds one inch and usually differs between left and right legs.

Eighteen ready-to-wear jeans of a similar, straight leg style, from five manufacturers were evaluated. Three criteria were selected for study: fabric skew, fabric grain in front and back pant leg pieces, and distortion in production. Jeans were evaluated for twist in the un laundered condition and after each of three wash and dry cycles. Fabric skew was measured following ASTM 3882 standard test method; grain was measured by identifying the relationship of a warp yarn to the side seam. Distortion in production was determined by dismantling the inseam and measuring the length of the front and back pant legs.

Fabric skew ranged from 7.5% to 12%, with greater skew being related to greater twist. Grain was essentially parallel to the side seams for all garment components. Greater differences in length between front and back pieces probably contributed to twist. Twist was significantly different between right and left legs, but no clear relationship was found between number of launderings and twist.

These results suggest that twist in jeans may result from an interaction of fabric skew and distortion in production, with the latter being an important factor. Additional research will focus on identifying solutions to twist in garment production in order to minimize seconds and returns, and to increase consumer satisfaction.
THE INFLUENCE OF COGNITIVE STYLE UPON
STUDENTS’ CHOICES OF MEDIA IN A HISTORIC
COSTUME COMPUTER-VIDEODISC LESSON

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The major purpose of this study was to examine the relationship of nine dimensions of
cognitive style to three media choices in a computer lesson. Eighty-one college students
enrolled in a historic costume class in Ohio completed a Learning Style Profile and a
computer-videodisc lesson, An Encounter with
Late Victorian Fashion. During the lesson,
students decided among three types of media
(text, images, audio) to receive information
about costume. The computer counted each time
a medium was chosen.

To assess the thinking processes of
individual students, the Association of
Secondary School Principals’ Learning Style
Profile is designed to measure nine dimensions
of cognitive style (Keefe & Monk, 1988).
Results of the Learning Style Profile identified
two cognitive skills (analytical and spatial) as
“high-average” mean scores. However,
individual differences were evident from the
wide range of scores found in all dimensions of
cognitive style.

Results of the lesson, An Encounter with
Late Victorian Fashion revealed that students
had individual preferences for the type of
media. However, mean scores revealed that
students chose visual images 60%, written text
30%, and audio approximately 10% of their
total selections. Students selected a combination
of media rather than a single medium. A
significant difference (p=.0001) occurred
between scores on a pre-assessment test and a
post-assessment test.

Significant relationships were not
detected among the nine cognitive styles and
types of media. The data have demonstrated that
students use their individual cognitive styles and show preferences when using technology.
Data support the use of visual images in
combination with text for effective learning
about historic costume.

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COMPUTER-AIDED DESIGN:
COMPUTER ANXIETY AND ATTITUDES
TOWARD THE USE OF CAD

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The continued inroads of computers and computer-
 aided design (CAD) into the apparel industry may put
individuals under pressure to cope with major tech-
 nological changes in their environment and may result
in anxiety and avoidance of computerized systems. The
purpose of this study was to determine whether computer
anxiety and attitudes about the use of CAD
were related to the variables of computer experience,
computer training, and selected demographics.

A regional telephone survey (n=102) of apparel
professionals, responsible for design decisions for
member companies of a local fashion trade association,
was used (78.5% response rate) and provided assessable
data using Likert-type ratings. Computer anxiety and
CAD attitude indices were derived and reliability tested
(Cronbach Alpha). Statistical analyses included corre-
lation coefficients, t-tests, and ANOVAs.

Respondents were primarily college educated
women who were managers with computer skills and
some CAD experience. Half of the respondents worked
for apparel companies (less than 100 employees) that
 utilized a variety of computer systems. Forty percent
of respondents’ companies used computer-aided design
while only 14% of respondents used CAD in their
 current job. Over 90% of respondents worked for
companies that used computers to manage the business.

Results showed that as the majority of respondents
had computer experience and training, they were
familiar with and, specifically, less anxious about using
computers and were more positive about the use of
computer-aided design than those without computer
experience and training. As respondents’ computer
anxiety decreased, their positive attitude toward CAD
increased. Significantly more positive CAD attitudes
were expressed by respondents who had either CAD
experience, non-management job titles, less work
seniority, worked for companies that used CAD, or
companies that employed more than 99 people.
Conversely, there was no significant difference in CAD
attitudes related to respondents’ gender, education, and
design activity, nor to their employer’s product mix and
range of computer usage. Computer anxiety levels were
not significantly related to the selected demographics.

Awareness of attitudes toward the use of computer-
aided design and computer anxiety levels will assist in
evaluating the role of computerized design systems in
the apparel industry as well as in the future development
of curricula for future apparel professionals. As apparel
professionals are expected to meet the industry’s need
for trained personnel who have computer and CAD
skills, they may find that their computer experience and
training reduce their fears and avoidance of computerized systems.
A CLOSE LOOK AT GARMENT COMPONENTS

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Our department's introductory course for apparel design and merchandising majors also serves as an elective for students in other college programs. Approximately half of the course deals with elements of apparel quality.

Course evaluations consistently showed that the apparel quality section was the most problematic aspect of the course. Students who lacked background knowledge about garment construction found the textbook difficult to understand. The average class size of 70 impeded close inspection of pictures and garments. Despite my continued efforts to provide more study aids, students expressed similar frustrations each term.

An instructional grant for Fall Semester 1991 enabled me to teach the apparel quality material in a state-of-the-art instructional television (ITV) studio on campus. Ten sessions on elements of apparel quality were held and video-recorded in the ITV studio. Each videotaped lecture covered a separate topic: shaping devices, underlying fabrics, pockets, neckline treatments, sleeve treatments, waistline treatments, closures, hem treatments, decorative details, fit and alteration. Students had access to individual monitors in the studio classroom, and copies of all videotapes were available for after-class viewing in the library.

The ITV portion of the course was rated as a very beneficial learning experience by 67.8% of the 62 students who completed an evaluation questionnaire. Camera closeups permitted classroom viewers to examine specific details depicted in catalogs or garments. Use of individual monitors assured all viewers equal access to any illustration. Placing the video record of each session in the library aided review of specific styles or techniques.
CURRICULUM REVISION IN TEXTILE PRODUCTS DESIGN: PRESENTATION SKILLS AND RESPONSE TO INDUSTRY

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Students graduating from a textile products design program should be able to present their marketable skills to industry through the portfolio. Traditionally, portfolio development has been taught as a course in the spring semester of the senior year or as a component of another course. Often, the portfolio is left up to the students. Yet, in the present state of economy with job opportunities diminishing and job competition increasing, a professional presentation of capabilities through the portfolio is critical.

During recent curriculum revisions, it was recognized that portfolio development should be encouraged throughout the design program. Plans were formulated to emphasize portfolio development within each design class.

The incorporation of the portfolio element into each class has been a positive move. Emphasizing that each project has the potential to be included in portfolios has improved the quality of work on projects. Secondly, starting portfolio development as early as the freshman year enables the students to have a well-prepared portfolio for internship interviews during the junior year. Finally, having a professional portfolio by graduation enables them to be on the cutting edge when interviewing for a job.

CONCEPTUALIZATION AND MEASUREMENT OF CONSUMER SKILLS IN APPAREL PRODUCTS: AN EXPLORATORY STUDY

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This exploratory study identified dimensions of apparel consumption skills and conceptualized these dimensions by developing and testing a measurement model of consumer skills. Data (N=574) were collected from undergraduates in a large-sized Southwestern university. A 56-item clothing skill inventory was developed through a pilot test and a pretest, and was initially analyzed using exploratory factor analysis, resulting in 10 interpretable factors. These 10 skill dimensions were factored again, revealing three conceptual constructs, findings which served as a basis for the development of a confirmatory factor analysis measurement model. The measurement model hypothesized that (a) the four dimensions (Comparison Shopping Skills; Efficient, Value-Oriented Shopping Skills; Shopping Planning Skills; and Information-Gathering and Evaluation Skills) measure Efficient Shopping; (b) the two dimensions (Textile Knowledge; and Fashion Knowledge/Appearance Enhancement Skills) measure Product Knowledge; and (c) the four dimensions (Informed Consumers; Knowledge of Legal and Economic Consumer Issues; Budgeting Skills; and Information Interpretation Skills) measure General Consumer Proficiency. By using LISREL confirmatory factory analysis, it was found that nine skill dimensions were pure measures, with the exception of Budgeting Skills, which was a composite measure of both General Consumer Proficiency and Efficient Shopping. It was concluded that clothing consumption skills were multidimensional and were conceptually classified into three main domains. Numerous implications for future studies are discussed.
APPAREL PURCHASING PRACTICES AND BARRIERS TO SHOPPING FOR CONSUMERS WITH A DISABILITY

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The primary purpose was to examine apparel acquisition of consumers with a disability. Objectives were to determine a consumer profile, purchasing practices, knowledge of special clothing sources and apparel shopping barriers. Surveys were completed by 625 vocational rehabilitation clients.

The average respondent was 25-to-45-years-old, female or male, single, had an income of less than $10,000, had been in school, lived alone or with people who were not disabled in cities under 50,000, were born with a disability or had been disabled 10 years or more and had a moderate-to-severe functional limitation. Most dressed independently, had difficulty dressing and made independent apparel selection decisions. Department, discount and mass merchandise stores were used most often. A mall setting was preferred by 78%. Only 26% knew of functional apparel sources; 47% would be willing to pay more for such apparel. Women had more difficulty than men with exterior and interior barriers. Consumers who did not dress independently had more difficulty with exterior and interior barriers and fitting rooms. Salespersons' attitude was a barrier for those who had difficulty dressing. Major barriers were fitting rooms, space between aisles, restrooms, steps, traffic routes through stores, curbs and merchandise location.

CHILDREN'S CONSCIOUSNESS OF CLOTHING EVALUATIVE CRITERIA AS AN OUTCOME OF CONSUMER SOCIALIZATION PROCESS

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By utilizing Moschis' Consumer Socialization Model (1987) as a conceptual framework, this study proposed that children's consciousness of clothing evaluative criteria is influenced by parental socialization variables as well as children's social-structural and developmental variables. Parental socialization variables were proposed to be influenced by social-structural and developmental variables. A total of 186 parents (39% return rate) of children in the first through sixth grade returned a mail survey questionnaire. Eighty-three percent of the respondents were mothers, and an approximately equal number of respondents' male and female children were represented in the sample. By using stepwise multiple regression analyses, children's consciousness of five clothing evaluative criteria (e.g., brand, price) were broadly predicted by several parental socialization variables (e.g., children's participation in shopping, parent's TV viewing restriction). Parental socialization variables were significantly influenced by children's social-structural and developmental variables (e.g., child's age and birth order, parent's marital status). However, a limited number of social-structural and developmental variables (age and social class only) directly influenced children's consciousness of evaluative criteria. It was concluded that parental socialization variables— which were influenced by social-structural and developmental variables did play an important role for children ages 7 through 12 becoming conscious of several evaluative criteria as consumers of clothing.
PREDICTING APPAREL AND GIFT RETAIL BUYERS' SATISFACTION WITH THE SERVICES OF A REGIONAL MERCHANDISE MART: FROM THE INDUSTRIAL SERVICES MARKETING PERSPECTIVE

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In today's "service economy" progressive wholesalers need to reexamine which services count most in building strong customer relationships.

The conceptual framework was derived from the Three-Stage Model of Industrial Service (Gronroos, 1982). The purpose of the study was to predict apparel/gift retail buyers' overall and specific satisfactions with a merchandise mart's service offering. Variables investigated included (1) buyers' overall satisfaction, (2) seven specific dimensions of satisfaction, and (3) buyers' attitudinal characteristics.

A questionnaire mailed to 4,000 apparel/gift retailers located in five western states resulted in 643 usable surveys.

Stepwise multiple regression revealed that the final equation for overall satisfaction had an $R^2$ value of .75 ($F=140.1, p<.001$) and was predicted by four specific dimensions of satisfaction. Retail buyers' overall specific satisfaction dimensions of services were broadly predicted by their attitudinal, individual, and store characteristics ($R^2$ values .10 to .34, $p<.001$). Theoretically, therefore, it is essential to include specific dimensions of satisfaction in the model of predicting overall satisfaction.


COMPUTER APPLICATIONS FOR TEACHING RETAILING

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Computers are now a necessity in business and successfully utilizing them is mandated. Both practicality and expense preclude writing a new program for every function that is needed in business. Students need to be able to utilize the tools available to solve problems. Computer exercises were developed to support the teaching of Fashion Merchandise Budget and Planning. Computer Assignments and exams comprise 40% of the student's grade in the course. The course's prerequisite is a basic computing course taught in the same department.

These Computer Assignments incorporate retail, management, fashion, consumer, and market knowledge into fashion merchandising applications. The emphasis and complexity of the assignments vary. They include expense accounts, store/department financial statements, and six month OTB plans. All were developed using a basic spreadsheet and wordprocessing program which makes the knowledge easily transferrable to other basic hardware and/or software. The computer is shown as one tool for good financial management within the retail arena.

Incorporating Computer Assignments into a junior level merchandising class (n=25) has improved student performance in the class. The use of computers in the course has also increased the students' perception that the information in the class is "on the cutting edge" and greatly increased their willingness to learn.

Computer exams have proved fruitful in successfully pointing out to students that problem solving often has time and equipment constraints. The Computer Assignments and exams have increased student understanding of how the elements of financial statements interact with each other and their relationship to retail management practices.

In the five semesters the Computer Assignments have been used, the course has evolved into a more complex, higher level of learning course. Every semester the students in the class use the computer more easily and more frequently. Every semester the students in the class use the computer more easily and more frequently. Their view that math and financial control is something to be lived through has been changed to perhaps there is some value to it. This view has been reinforced by their recognition of the value of this course's computer applications in better understanding this course's content as well as their fashion research, marketing, and retailing courses. Ideally all courses contribute to the integration and meshing of knowledge by the student. Few actually do this well enough for the student to notice.
A SEMINAR:
STRUCTURING EFFECTIVE INTERNSHIPS
FOR FASHION MERCHANDISING

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Fashion merchandising internships can be advantageous to employers, students, and university public relations. Educators are challenged to structure beneficial internship opportunities for students and to minimize time involvement for cooperating employers. The students have long range potential within the firms where they are interns, and a successful internship will include information-seeking by the student which might not otherwise be sought in a usual job setting.

A manual of assignments related to internship tasks had previously been developed. Student interns indicated that many of the assignment questions were not applicable to their specific employment situations. In response to student comments and a need to update the internship requirements, a seminar was developed employing student involvement in re-structuring the assignment manual.

Senior level students who had successfully completed the internship course were eligible. Students with diverse internship experiences were encouraged to participate. The students were enthusiastic about the opportunity to impact the quality of internships for future students and their ideas were refreshing contributions to the manual. Additionally, their awareness of current opportunities at specific firms was helpful in collectively constructing a series of assignments which could be completed at various settings. Students formed committees which were responsible for revising and creating some manual assignments. The committee system allowed for prior planning, group cooperation, and class review as progress was made. The resulting manual provided assignments corresponding with the opportunities in the geographic region of the university.

EXPERIENTIAL LEARNING ACTIVITY: AN EXAMINATION OF RETAIL STORES AND RELATED CUSTOMER SERVICES

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Objectives: Preparing students to establish careers is one of the primary responsibilities of educators. Retailing is a complex industry and an understanding of activities performed by retailers is essential to merchandising students. This group activity is designed to allow merchandising students to become more knowledgeable about retail stores and related customer services, participate in market research activities, become accustomed to interacting with customers, make qualified recommendations to store managers, realize the implications of knowledge gained, and accomplish objectives with co-workers.

Documentation of Need: An important aspect of the learning process is providing students with experiential learning activities which offer a system of competencies for describing job demands and corresponding educational objectives. Experiential learning pictures the workplace as a learning environment that can enhance and supplement formal education and foster personal development through work and career opportunities.

Project/Material Design: After appropriate instruction, students are divided into groups and assigned specific stores to investigate. Each group gathers information about the store and determines integrative and common customer services offered through observations and employee interviews. In addition, students conduct structured store customer interviews and evaluate customer services offered by one competitor. Based on findings, students determine the optimal customer service level to be offered by the store. By considering store characteristics, competition, merchandise offerings, price image, target market income, and cost of services, students arrive at the retailer's service mix that satisfies current customers, entices new customers, projects an appropriate store image, and maximizes profit. As a result, students make recommendations, in a typewritten report, to the manager of the store about changes in the types, levels, and quality of the customer services offered. For the instructor, each group is responsible for preparing a written report and an oral presentation that includes all information gathered, customer survey results, store recommendations, implications of the knowledge gained by the project experiences, and a reference list.

Effectiveness of Activity: Successful results of the project are evidenced in evaluations. Student appraisals are extremely favorable. Supporting store managers report utilizing student recommendations and customer survey data in strategic planning.
BEYOND THE ACADEMIC SETTING:  
ANALYTICAL STUDIES IN  
MAJOR MARKET CENTERS  

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In academic institutions, the educational process often extends beyond the classroom setting. At a major midwestern university, the learning process includes a required, structured, field study to a major market area of the U.S. or in Mexico.

An analytical research component was included to integrate and promote the application of concepts and approaches presented in courses offered within the student’s major. Students collected a combination of observational and interview data while at the field study destination. Related research and information was also collected from professional and trade materials, and information presented at field study appointments.

Topics of study included, but were not limited to, data gathering and analysis of methods used by fashion forecasting services; learning potential and visual interest of museums; techniques, philosophies, and affects of visual retail displays in the U.S. and abroad; technical and aesthetic aspects of designers’ lines; and the impact of tourism on product development.

Project evaluation was based on organization of material, quality of written and oral presentation, depth of content, comprehensiveness of information, and integration of subject matter concepts with field study activities and experiences.

The inclusion of this analytical opponent has resulted in a greater understanding of how course content is utilized and applied in the textile and apparel industry. Students also have increased awareness as to how industry practices and perceptions will vary between differing geographic regions in the U.S. and abroad.

ROLE OF QUICK RESPONSE IN MERCHANDISING PROGRAMS: THEORY AND PRACTICE

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United States textiles and apparel industry is located in the midst of the largest apparel market in the world. Yet the ability of domestic apparel firms to compete in the global market is constantly questioned. Quick Response (QR) is believed by industry leaders to be essential to the global competitiveness of the U.S. industry. These systems are rapidly being developed among U.S. materials suppliers, manufacturers, and retailers.

Concepts of QR and the impact of QR on merchandisers’ responsibilities must be incorporated immediately into our classes. Available textbooks have little in-depth information on QR theory or practice. QR systems are designed to take advantage of proximity to the U.S. market. QR strategies focus on 1) forging partnership-type relationships among firms in the soft goods chain, 2) improving information quality and flow, 3) increasing flexibility of manufacturing processes and technology, and 4) reducing inventories while having more salable goods throughout the business system. Effective application of QR strategies reduces inventory carrying costs, reduces stockouts, and improves stock turn at both manufacturing and retail levels.

QR systems have profound affects on the responsibilities of merchandisers, which include the planning, development, and presentation of product lines at both manufacturing and retailing levels. The economic outcomes of QR are based on enhanced wholesale and retail merchandise plans. Modern merchandise planning must go beyond traditional retail six-month dollar plans. Plans incorporating stock-keeping-units of merchandise and weeks-of-sale are essential for QR, and must include reorder and delivery schedules based on point-of-sale information during the selling season.

Incorporation of QR systems into merchandising classes is essential to the professional preparation of students. A tool that is very useful for teaching QR is the Apparel Retail Model (ARM) computer simulation developed by North Carolina State University in cooperation with Textiles and Clothing Technology Corporation. The simulation includes assortment plans, pricing strategies, delivery plans, consumer behavior, and financial analysis of the results.

I have used the ARM simulation in merchandising classes and have developed a series of projects that allow students to manipulate one factor in the simulation at a time with a final project that incorporates all factors. The major benefit is that students cannot manipulate one factor of the merchandise plan without recognizing the impact on other factors and on the financial outcome.

QR can be incorporated in our classes without the aid of computer simulation, but academic research is needed to verify industry studies of Quick Response, evaluate QR’s effectiveness, and contribute to its further development.
SOUTHERN TEXTILES - DIFFERENCES AMONG THE INDUSTRIES OF THE CAROLINAS, GEORGIA AND ALABAMA, 1880-1920
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COTTON BAGGING: A RECYCLED TEXTILE OF THE PAST
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There has always been an interest in ancient and rare textiles, but the common, everyday textile has seldom caught the attention of the researcher and collector. It is reported by textile historians that garments and textiles of everyday life are seldom saved as "heirlooms" and thus the history of work and daily clothing is often missing from historical textile information. The history of the cotton bag spans over 100 years and although an important and often vital textile to families, little research has been done on this subject.

The purpose of this research was to examine the phenomenon of the cotton bag used by various industries to bag foodstuffs, grains, and other various items in the early to mid 20th century in the United States. The major research questions were 1) why was cotton a significant bagging material used in the early to mid 20th century 2) why did it gain such widespread popularity and ultimately become obsolete 3) why was the bagging fabric printed 4) what characteristic of the fabric made it appropriate for various uses in apparel and household sewing projects 5) what were the various fabrications of weave, finish and patterning, and 6) what were the end uses of this recycled fabric?

The research was conducted using methods consistent with historical inquiry. A qualitative study was conducted collecting data from a variety of primary documents, oral history, interviews, and examination of many actual samples. Content analysis of the artifacts (approximately 250 items) was systematically done to classify and organize information.

At the conclusion of the data collection, original questions were reviewed, and interpretation of the data was done. Based on these findings, the research revealed the printed bag did not appear until 1937, while the stamped plain cotton bag was used even before the turn of the century. The peak of popularity was between 1940 and 1960 with printed bags still available as late as the early sixties. It was also discovered that beyond the marketing motive of printed bags there is another reason for promotion of cotton bagging. The ailing cotton industry of the 1930's promoted "new uses for cotton" which included new bagging markets. World War II was a significant event that contributed to the use of cotton bagging as a necessary recycled textile for families.

Cotton bags served as a significant source of fabric, inexpensive and readily available, contributing to the many textile needs of the family. Of particular interest to the researchers were the personal stories of how the bags affected the individual family members. It revealed much about how people "made-do" with what was available.
WESTERN NIGERIAN PATTERN-DYED TEXTILES: ABEOKUTA TIE-DYED ADIRE

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Various styles of familiar tie-dye distinguish different cultural areas. Abeokuta in western Nigeria has produced traditional patterns known as adire cloth which uses either tying or paste as the resist medium. Tie-dyed are discussed here. Earlier done by hand and indigo-dyed, they now include use of a sewing machine and imported dyes. Most work is family-based, but some cooperatives started in the 1960s. Patterns range from simple to complex, and from scattered to compact. Understanding the processes, materials, and time needed to complete cloth are facilitated by studying "before" cloths tied and ready to dye as well as the "after", untied, completed cloth.

Each resist medium and technique leaves its identifying signature. Media include cotton thread or raffia, either tied or stitched, leaving varying lines. Motifs are tied separately or in a line allowing incorporation of tiny seeds, pebbles, or grains. Some tied patterns become so textured they are almost sculptural. Tucks, pleats, and folds add further resist areas.

Stitched examples (alabere) may have tucks and pleats overcast with raffia, including one pattern "tribal marks with fingers." A machine stitched alabere called "threepences scattered all around the house" (toro fun k'ale) treats two layers of fabric as one. Tucks make rectangles, and wavy lines create circles within the rectangles.

Tied examples include one called olino, with bands of pleats overcast with raffia. A most impressive pattern uses tiny seeds tied with continuous cotton thread into tight concentric circles. Called eleso, a square yard of fabric is so compacted when tied that it becomes a tiny cone "cap." The patience and skill of the artisans yields a wide range of adire that reflects both techniques and media, and aesthetic traditions of Yoruba areas of western Nigeria.

KOREAN BRIDAL GOWN, HWAROT: EXPRESSION OF KOREAN BELIEF

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Throughout its history (4,000 years old), Korea developed a variety of costume. In part, it was due to rigid distinctions clearly drawn between social classes and the impact of the religions practiced throughout its history. The styles, colors, patterns, and materials were not mere happenings or creations of daily life, but custom meticulously observed by the court and its people.

Korean costume received little attention, although its rich diversity in color, form, and material would offer treasures and intrigue for costume researchers. The purpose of this study was to research the symbolism of a Korean wedding gown, hwarot. The hwarot was worn initially by the queen as a formal dress and later by the commoners as a wedding gown during the Yi dynasty (1392-1910). The hwarot is currently being worn by brides for traditional wedding ceremonies.

The hwarot was constructed with two layers of silk fabric and characterized by huge rectangular long sleeves and a moderate-sized straight bodice. The outer layer was made with red fabric and the lining with deep blue. The sleeves consisted of multi-colored strips (yellow, red, and blue), and white material was sewn next to these strips. The entire gown was then covered with various embroidered motifs.

The data were collected from actual hwarots housed in the Field Museum of Natural History. Embroidery patterns of hwarot extant in Korea were also examined. The literature on Korean cultural background was investigated in terms of geographical, historical, and religious aspects as well as the caste system and wedding ceremony.

The findings indicated that four religions—Shamanism, Taoism, Confucianism, and Buddhism—greatly influenced the form, color, and motifs of the hwarot. When worn as a queen's formal gown, the hwarot needed to symbolize supreme power: The straight and vertical seams of the hwarot denoted impeccable justice while the horizontal hemlines signified firm and calm heart of the wearer. When worn as a wedding gown, the bright colors and motifs as well connoted a festive occasion. The five colors—red, blue, yellow, white, and black (hair ribbon)—of the hwarot were from Taoist's yin-yang and five elements theory which carried the meaning of perfection. The multi-color striped sleeves represented Korean festivals. The colors of red and blue for outer fabric and lining of the hwarot stood for yin and yang or female and male, thus symbolizing marriage.

Various religious motifs such as the musical stone, fungus, peach, coin, and lotus on the hwarot were used to symbolize happiness, immortality, and wealth. Other non-religious motifs such as the butterfly, pomegranate, chrysanthemum, and Chinese characters were also used to add festive mood and to express Korean people's wishes for happiness, longevity, wealth, and fertility on the wedding day.
ANALYSIS OF A QUILT PROJECT
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The purpose of this study was to utilize data from a state project to investigate construction and design characteristics, geographical region of manufacture, and function and value of the quilts. Analysis of data from such a project may lead to the discovery of trends.

Object analysis and descriptive statistics were used to interpret data collected from the quilts. Quilt construction methods, surface embellishments, and design characteristics were systematically analyzed. Interview records were content analyzed.

Stitches used in construction reflected technological change. The predominant type of quilt construction was quilt blocks without sashing. The use of borders on quilts increased over time. The increased use of borders may be related to a style change or changing roles of women resulting in less time available for piecing.

The locale of manufacture changed over time, an indicator of demographic changes and the transient nature of the state’s population.

Seventeen percent of the quilts were signed, a symbol of value. Making a quilt for a gift was the predominant function for the quilts and also an indication of value. Other functions were making a quilt for a contest, making a commemorative quilt, and making a fundraising quilt.

SPECIALIZED APPAREL FOR FUNCTIONAL PURPOSES
APPEARING IN POPULAR WOMEN’S JOURNALS: 1830-1900

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The major goal of the research was to discover how popular literature addressed the special needs of family members who might require functional apparel, especially within the home setting. Popular literature examined included: Good Housekeeping (1885-1900), Godey’s Lady’s Book (1830-1890), Harper’s Bazar (1867-1898), Household (1868-1893), Ladies Home Journal (1884-1900), Peterson’s Magazine (1842-1866), and selected issues of Arthur’s Home Magazine, Delineator, and the American Agriculturist (1870-1900).

Two categories of apparel reported here include: (1) clothing designed for those with long-term illnesses or physical disability, and (2) clothing designed for household work. These reveal the most inventive solutions to everyday clothing problems.

For housework, protective clothing dominated, especially protection from moisture and dust. Second most prevalent were features which improved mobility. Specialized apparel categorized according to task included kitchen work, housecleaning (especially sweeping), laundry work, sewing, and gardening, in order of frequency.

Features designed for long term illnesses focussed on ease of dressing, improving physical appearance and, in some cases, mobility. Special seaming and closures were most frequent methods used to accommodate ease of dressing. The psychological effect of clothing was recognized in that clothing for the bedridden often was recommended for its ability to raise the spirits of the sufferer.

Altogether, clothing for specialized needs did not receive much emphasis in the popular literature when compared to the reporting of fashion.
ANALYSIS OF U.S. 807 AND 807A APPAREL IMPORTS FROM MEXICO

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With negotiation of the North American Free Trade Agreement (NAFTA) complete, the impact of the advantages afforded Mexican production of apparel merit empirical scrutiny. Under the Tariff Provision Schedule of the United States, 807 and 807A apparel imports have received preferential treatment and, thus, can be used in examining the flow of apparel imports entering the United States from Mexico and the potential for structural transfer of labor resulting from the wage differential between the two countries.

The theories of comparative advantage and factor endowment lead to the expectation that to maximize economic efficiency, labor intensive production such as apparel assembly will be undertaken where labor is abundant and wages are relatively low. With the primary requirement for apparel production being labor, the most important explanatory variables are wage rates in each of the countries. The exchange rate would also be expected to have an effect, as the majority of apparel production for export is undertaken in maquila facilities owned or operated by U.S. firms, with both wages and tariffs paid on apparel assembly originating as U.S. dollars.

The volume of 807 and 807A apparel imports (SYE) from Mexico was expressed as a function of the average hourly U.S. manufacturing wage rate in U.S. dollars, the average hourly Mexican manufacturing wage rate in pesos, and the average monthly exchange rate in pesos per U.S. dollar. Monthly time series data covering the period January, 1984 through December, 1989 were used in estimating the parameters.

Regression analysis indicated that a relationship existed between the volume of apparel imports and the U.S. wage rate, Mexican wage rate, and exchange rate. The adjusted R² of 0.7989 indicated that the model explained the majority of the variation in import volume. The parameter estimates for both the U.S. and the Mexican wage rates were statistically significant, while that for the exchange rate failed to be significant. Signs of the parameter estimates produced were as expected:

\[ \text{VOL}_t = -84209.67 + 9811.565 \text{WUS}_t - 1.289 \text{WMX}_t + 1.605 \text{EXCHRT}_t \]

(0.0001) (0.0446) (0.1013)

Therefore, it was estimated that, on average, a one dollar increase in the U.S. wage rate would result in a 9.8 million SYE increase in Mexican apparel imports, while a one peso decrease in the Mexican wage rate would yield almost a 1.3 thousand SYE increase in imports.

FASHION PRODUCT INFORMATION IN MAGAZINE ADVERTISEMENTS: WHAT DO CONSUMERS WANT?

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Advertising is not a frequently used source of fashion information for many consumers (Chowdhary, 1989). Perhaps consumers are not satisfied with the information found in advertising? Fashion advertisements have become less verbally descriptive and more dependent on an "image" conveyed visually over the past 20 years (Kimle, 1991). For consumers who would use ads as an information source, it may be difficult to extract or interpret the cues sought from what is presented in most ads recently. This study identified product information cues viewers sought from ads and examined their level of satisfaction with the information found in recent ads.

Method Interviews (n=44) with women identified information cues sought from ads. Viewers' satisfaction with the information in 8 stimuli ads was measured by a nine item, 7-point Likert-type scale. Items were information about garment price, design detail, line, shape, color, texture, fabric type, fiber content and situational appropriateness of the garment.

Results Twelve 12 types of information cues were sought by the participants. The most frequently identified cues were price, fabric type, available colors, and a description of the garment. Price information was the most important due to the role of price to the purchase-decision, its use in evaluating garments, and to satisfy curiosity. Cues used to infer the price of garments when it was not explicit included fabric type, ad style, designer and store names, and garment style.

The advertisements rated most satisfactorily in information combined visual and verbal information about price, style, fabric and fiber content. Correlations between ratings of satisfaction and participants' scores on two measures of fashion involvement indicated that higher involved participants were more interested in information about price, line, texture, fiber content, and the situational appropriateness. Satisfaction ratings for line, shape, and detail information were highly correlated (r>-.75) as were texture, fabric type and fiber content (r>-.77) indicating that visual or verbal information about design elements is used to interpret other design elements. This suggests that if ads are explicit about some informational cues, viewers may be more comfortable making inferences about related cues.

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LINKING DEMOGRAPHIC AND PSYCHOGRAPHIC TRAITS OF CHINESE-AMERICAN CONSUMERS

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With increased immigration, there is a growing interest in demographics of ethnic groups. The number of Asian Americans has doubled from 3.5 million in 1980 to 7.3 million in 1990. Psychographic classifications of consumers, shopping orientations, are used to subgroup markets into niches. Unique demographic traits of Chinese Americans may be linked with unique shopping orientations.

The study investigated the influence of 13 demographic traits of Chinese-American adults living in Los Angeles, California, on responses to 12 identified shopping-orientation subscales.

A questionnaire in English and Chinese included demographic items and a shopping-orientation scale. The questionnaire was distributed to organized groups; the sample consisted of adults (18 years and older) in Los Angeles, California, with heritage linked to Taiwan, Hong Kong, or mainland China. The shopping-orientation scale included a five-point, Likert-type scale. Cronbach’s alpha statistic, producing an alpha of .84, indicated an acceptable level of reliability. A 20% response rate was obtained (N = 158).

Multivariate analysis of variance (MANOVA) was employed. One-way analysis of variance (ANOVA) and the Scheffe Multiple Comparison Test were used to identify specific differences between groups.

MANOVA indicated the following traits significantly influenced responses to one or more shopping-orientation subscales: marital status, age, educational level, language preference, presence and number of children in the family, employment status, number of languages spoken, number of household members, number of employed household members, annual income, and ownership of residence. Demographic and psychographic data describing the Asian-American market may help marketers appeal to subgroups of the Asian-American population when planning advertising campaigns and when merchandising goods and services.

MANAGEMENT STRATEGIES FOR SMALL APPAREL MANUFACTURERS

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To be competitive, apparel manufacturers must be both marketers and production engineers. Producers must simultaneously grasp the very latest market data and the most up-to-date production methods to reduce cost and risk which requires changes and investments in their production facilities. Previous research found that changing merchandise systems and production planning was a management challenge (Dickerson, Dalecki, & Meyer, 1991). Many manufacturers were not comfortable with this constant change in production and the need for high capital investment.

This study was designed to investigate the management strategies available for small apparel manufacturers. Interviews were used to collect data from successful small apparel manufacturers. Success was defined by growth rate and bottom line profitability. Methodology for the interviews followed the procedures outlined by Forney, Rosen, and Orzechowski (1990). Two factors of production planning were investigated: (1) manufacturing activities by capabilities and (2) product line appropriateness.

The results of the interviews indicated that these small manufacturers had selected the niche approach to apparel manufacturing. Each had selected a slice of the manufacturing process for which they had expertise (e.g., cutting because of their mechanical engineering background). Second, they selected a product line which required limited initial investment and was easily changed for fashion looks (e.g., embroidery for the added value from original plain garments).

Apparel production has traditionally been based on intensive labor demands off-set only with a large capital investment. For reduced financial risks, manufacturers desire to produce with a minimum of investments. Although this study is qualitative and limited in generalizability, the results provide insight into solutions for the small manufacturer. Further research should study the viability of simplified manufacturing as a tool for small apparel manufacturers.


OFFSHORE BUYING EXPERIENCE: MERCHANDISING TEAMS

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The purpose of the project is to provide a simulated offshore buying experience in an advanced merchandising class. Assigned readings for the semester are in the areas of technology, trade policy, and business ethics. This project attempts to integrate a hands-on approach within a theoretical framework. Members of the class are assigned to development teams. Product types included men's or women's sportswear, children's clothing, shoes, or women's accessories. Each student prepares a prospectus defining the merchandise and the outlet they will represent. Team members evaluate individual buying prospectus', implementing plans to research and present an in-class summary of their product development off shore conclusions.

Areas of investigation include sourcing, cultural analysis and infrastructure discussion of the chosen country of origin. Expedition of the product including quota, customs, and transportation is also discussed. Exploration of economic development offices, trade relations groups, and U.S. Customs is recommended. Student response indicates that is is a successful method of integrating the commercial offshore pricing experiences with theoretical frameworks surrounding international apparel trade. The process includes organizing and implementing buying strategies that require students to preform in a manner similar to those methods found in the business sector. Successful projects demand investigation and follow through on a level the cannot be experienced in a textbook.

SYNTHESIZING INDUSTRY INFORMATION ACROSS NATIONAL BOUNDARIES

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This assignment was developed with the philosophy that students, as future professionals in the broad field of textiles/apparel, need to gain skills in analyzing the textiles and apparel industries within the international arena. As Dickerson (1991) suggests, the textile and apparel complex is unquestionably an international business. The study of any international business requires that students develop an international perspective such that various geographic, cultural and economic aspects of the world are studied as a part of a larger interacting and interdependent system (Forney, 1984). Therefore, students must be able to synthesize information from many areas of study and bring this information to bear on a single problem or issue.

A library research project was developed. Students in a junior/senior level course in textiles and clothing entitled "The textiles and apparel industries" are required to compare three locations (The U.S. & two foreign locations) for the possibility of sourcing a specific garment. In order to successfully complete the assignment students must draw upon prior learning in textile characteristics, apparel design and analysis, the textile and apparel industries, as well as basic research, mathematical, and written communication skills.

Students write a four page paper which includes an assessment of 1) the foreign locations (i.e. a profile of the areas, including geographical location and characteristics, the infrastructure, level of development of industries, labor costs (Dickerson & Hester, 1984), quota/customs regulations, etc.); and 2) the elements involved in the construction of the garment (i.e. raw materials, garment design, production time and skills needed, labeling, etc.). The instructor maintains control over the project by specifying which foreign locations may be used. Instructor's evaluation of the report rests on two elements: 1) the quality of the library research and 2) the justification for the choice of a location/method of sourcing. The plan for the future is to incorporate a computer analysis of the cost component of the production into the assignment.

CLOTHING, ETHNICITY, AND ATTRIBUTIONS CONCERNING DATE RAPE
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This study investigated the effects of clothing, ethnicity, and sex of subject on attributions concerning a victim of date rape. Subjects in the study were 411 undergraduates. The design was a 2 X 4 X 2 between subjects factorial with two types of clothing (revealing, nonrevealing), four ethnicities (white, black, hispanic, asian), and sex of subject. Revealing clothing included a short black knit dress with a scoop neckline, hose, and heels. Nonrevealing clothing included a long sleeve blouse and coordinating skirt, hose, and flats. Subjects were instructed to assume that they were serving as a juror in a date rape trial. Subjects read a description of a date rape and were supplied with a photograph of the "victim" and asked to make attributions concerning her receptivity to sexual intercourse, her responsibility for the rape, whether she led the perpetrator on, and whether she could have done something to prevent the rape. Subjects also indicated their age, sex, and confidence in their responses. Subjects indicated they were confident in their responses. Subjects rated the victim who was black and wore revealing clothing as more receptive to sexual intercourse than the victim who was black and wore nonrevealing clothing. Males rated the victim as more receptive to sex and as likely to have led the perpetrator on than did females.
Rationale. Male hair length, in the U.S., is symbolic of a liberal-conservative orientation. Research has found that males with short hair are perceived more favorably than males with long hair. Is the ponytail a way of expressing liberalism while also subjecting the hair to a certain discipline? Is it a way to be safely deviant? This study was designed to update and extend previous research by examining the effects of restraining long hair in a ponytail. Law students were used as subjects because judgments of some personal and behavioral traits might be particularly important in a lawyer/client relationship.

Procedure. Subjects were 50 male and 42 female law students (mean age 28.19). Color photographs were taken of a male with three hair lengths (short, long, ponytail). Each subject viewed one of the photographs of a prospective client and using 7-point scales, indicated their perceptions of eight personal traits (well-groomed, mature, ethical, responsible, moral, masculine, reliable, trustworthy) and eight behavioral traits (been a rebellious teenager, tell a lie, be law-abiding, be successful in his career, cheat on income taxes, be on time for work, obey the speed limit, be a social protest participant), and indicated the likelihood they would accept the man as a client.

Results. Factor analysis revealed all eight personal traits fell into one factor (all loadings >.50). ANOVA revealed that ratings of personal traits and behaviors varied as a result of hair length, F (2,87) = 4.58, p < .05, and F (2,89) = 26.61, p < .00, respectively. Newman-Keuls procedure (p < .05) revealed that short hair resulted in significantly different perceptions from the other two conditions (long, ponytail). When the male had long hair (either long or in a ponytail), he was perceived as having less positive personal traits, as having been a rebellious teenager, and as a social protest participant. Law students were more likely to accept the man as a client when he had short hair, F (2,90) = 3.33, p < .05.

Implications. Results indicated that perceptions of some personal and behavioral traits differed for the same man with long and short hair. No significant differences were found as a result of long hair and long hair constrained in a ponytail. Men continue to be judged on the basis of a stereotype associated with male hair length. This stereotype can affect a potential lawyer/client relationship.

Gender Ideology, Body Satisfaction and Self-Esteem

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Traditional gender ideology promotes a very narrowly defined beauty ideal for women related to being attractive and thin (Wolf, 1991). This ideal is pervasive in advertising and sells products by fostering low self-esteem in women (Wolf, 1991). However, as compelling and pervasive as the ideal of beauty is, all women are not thin and attractive. Freedman (1984) suggests that as dichotomous gender roles are replaced by more flexible adaptive roles, people may be less likely to equate femininity with beauty. It was our contention that espousing non-traditional gender ideology may "inoculate" women to some of the negative effects of the cultural ideal of beauty and thinness.

The purpose of this research was to investigate a possible relationship between gender ideology, self-esteem and body satisfaction in women. Research subjects were 194 undergraduate women. MANOVA was used to analyze the data; gender ideology was used as an independent variable and body satisfaction and self-esteem were used as dependent variables. As a function of the MANOVA, differences were found for gender ideology. As compared to women espousing traditional gender ideology, women espousing non-traditional gender ideology scored significantly higher in self-esteem, but not in body satisfaction. These results help to de-mystify the linkage between the social construction of gender, the ensuing internalization of the beauty ideal and perceptions of self-esteem and body satisfaction. They may also be used to produce strategies to strengthen self-esteem and to develop healthier body images.


LOCUS OF CONTROL AND PERCEPTIONS OF BUSINESS ETHICS

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Researchers have attempted to identify the situational and individual bases for ethical decision making. This study furthers this work by focusing on the relationship between locus of control and students' perceptions of ethical practices in business. Locus of control is the extent to which an individual exerts control over the life events. An "internal" believes that life events are an outcome of one's own efforts, whereas an "external" believes that these events cannot be controlled, they are a result of fate. Trevino (1986) suggested a relationship between an individual's locus of control and ethical decision making. However, locus of control may be a general expectancy of how an individual views his/her world and therefore may not be related to value judgments (Rotter, 1982).

A sample of 191 college students completed Rotter's (1982) Internal/External Scale and the Business Practices Questionnaire (Shuptrine, 1979). Results of correlation analysis indicated no relationship between locus of control and perceptions of business ethics ($r = .0016, p > .10$). This result may indicate that locus of control has limited effect on one's perceptions of ethical practices. However, locus of control may affect judgments of one's own behavior or actual behavior in ethical situations.


APPEARANCE MANIPULATION ASSIGNMENT AS A KEY TO THE CONTEXTUAL APPROACH TO THE SOCIAL PSYCHOLOGY OF DRESS

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Enrollments are high in our undergraduate course in the social psychology of dress, averaging about 80 per term. Teaching strategies that are typically preferred, such as small group discussion and role playing scenarios, are thus constrained. The course is structured as a large lecture course, incorporating slides, videos, some small group discussion during lectures, and an in-depth written assignment that has proven effective.

The course uses the Kaiser contextual approach (1990) to the study of the social psychology of dress in which cognitive structure, symbolic interaction, and cultural setting are integrated. To make this approach real, students conduct and report an appearance manipulation study, whose purposes are to 1) categorize one's typical appearance and what it communicates, and 2) alter one's appearance and assess what the altered appearance communicates to others. Students are asked to drastically alter their usual appearance and engage in a typical social setting, noting how their appearance seems to affect the impressions and behavior of those in the setting. Students submit photographs of both appearances. The written analysis is focused on the communicative value of the visual cues (cognitive aspect), the interaction as a result of the cues both on the part of themselves and the other actors involved (symbolic interaction), and the mitigating effect of the social setting and its actors (cultural context). Reports have shown both creativity and critical thinking.

ABRASIVENESS OF ADDITIONAL BACKING FABRICS USED IN TEXTILE CONSERVATION

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A new test method for measuring abrasiveness (roughness) of fabric surfaces using an AATCC crockmeter has been developed by the author. This study is third in a series evaluating abrasiveness of certain backing fabrics used by textile conservators.

Rough, abrasive surfaces on backing fabrics may cut at delicate fibers in a textile artifact whenever movement occurs, whether from lifting and repositioning the mounted item or from displaying or storing vertically where pulled by gravitational forces.

The abrasiveness test method used 10 rubbing cycles with a crockmeter to create an accelerated abrasive action. A brightly colored flannel, serving as the donor fabric contributing loosened fibers to simulate the textile artifact, was mounted on the crockmeter peg and rubbed against the backing fabric specimens. An abrasiveness fiber count then was determined by counting the number of loosened fibers in a centered one-half inch square that were removed from the donor fabric to the abradant fabric.

Eleven additional fabrics, commonly used by textile conservators, were evaluated in this series, including light and heavy weight linen backing fabrics, light weight silk habutae, silk crepeline, polyester StaBlitex, and nonwoven spunbonded fabrics. One-way analysis of variance examined the effect of fabric construction, weight and thickness upon the number of fibers removed. Fabric construction plays an important role. For woven fabrics, weight is a factor.

EFFECTS OF LAUNDERING ON INSULATION PROPERTIES OF BLANKETS

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Five woven and five nonwoven blankets were evaluated for thermal transmittance using a guarded hot plate thermal transmission tester before and after laundering according to manufacturers' instructions. Physical measurements before and after one and five launderings were used to determine whether changes in transmittance are related to fiber (weight) loss, dimensional change (shrinkage) or change in thickness that occurs during the laundering process.

After one laundering, thermal transmittance had decreased in eight blankets and increased in two. Each blanket shrank, decreased in weight, and increased in thickness. The thickness of one woven and four nonwoven blankets declined between the first and fifth laundering. After the fifth laundering, thermal transmittance of nine blankets had decreased to less than the initial measurements taken before laundering. Transmittance of one woven blanket increased.

Statistical correlations revealed that thickness change and dimensional change correlated significantly with change in transmittance of the nonwoven blankets, while weight change did not. However, weight change and dimensional change correlated significantly with change in transmittance of the woven blankets, but change in thickness did not.

It is concluded that thermal insulation effectiveness of both woven and nonwoven blankets generally improves with laundering, due to structural changes in the fabric.
EXPERIMENTAL METHODS FOR THE ANALYSIS
OF DYE DESORPTION

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Studies of the kinetics of dyeing have usually been
done by measurement of the rate at which dyes move from
a dye bath to a fiber. However, comparable information can
be obtained from measurement of the rate at which dyes
are desorbed from previously dyed fibers in a blank
dye bath. When undyed fibers are present, the desorbed
dyes will dye these, maintaining the proper conditions in the
dye bath for the solution of the kinetic equations.
Information concerning dye-fiber interactions, including
determining the effect of dye structure on these
phenomena, can be generated by studies of this type.

This research had two objectives: (1) to compare
three analytical methods for quantitative determination of the
amount of dye present on the fibers, and (2) to compare the
desorption from dyed nylon 66 of two different CI Acid Blue
dyes which would be expected to show different desorption
behaviors on the basis of their molecular structures. CIAB
80, which has two sulfonic acid groups in its molecular
structure, was expected to desorb from nylon 66 at a slower
rate, and thus to a lesser extent at a given time for
desorption, than CIAB 277, which has only one sulfonic
acid group to bind with amine end groups in the nylon
polymer.

Samples of nylon 66 spun yarns dyed to three
different initial levels with either CI Acid Blue 80 or 277 were
placed in blank dye baths with an equal amount of undyed
yarns. Transfer of dye from dyed to undyed yarn was
allowed to proceed at 90°C and pH 4.5 for 30, 60, and 90
minutes. Three different analytical methods were used to
measure the amount of dye transferred; these were
refractance, extraction, and solution. In the refractance
method, this was determined by measurement of the light
reflected from the yarns, using the Kubelka-Munk
relationship. In the extraction method, dyes were extracted
with 57/43 pyridine/water, and the amount of dye was
determined spectrophotometrically using Beer's Law. In the
solution method, dyed yarns were dissolved in 88% formic
acid, centrifuged to remove suspended TiO₂, and dye
determined as in the extraction method. Analyses were
done on both yarns used in each experiment.

Reflectance was the simplest method to use, but
provided the least satisfactory results, consistently
overestimating the amount of dye transferred. Extraction
and solution gave similar and consistent results; the
solution method appeared to provide greater precision.
CIAB 80, with two sulfonic acid groups in its molecular
structure, was found to transfer to a significantly less extent
than CIAB 277, which has only one sulfonic acid group.

RELATING TEXTILE FIBER PROPERTIES
TO PRODUCT END-USE PERFORMANCE

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All segments of the retail industry utilize
textile products. Most merchandising and
design graduates are employed in jobs that
require them to develop, select, and market
textile products designed for pre-determined
uses and target groups. To be successful,
students must acquire an understanding of
performance standards for products.

The objective of this teaching strategy is to
help students understand how textile properties
can be engineered into products to dictate end-
use performance characteristics. The strategy is
a project in the form of a paper and
swatchboard.

Part one of the paper requires a description
of the product, intended end-use and targeted
user. In part two, students develop functional,
aesthetic and expressive performance
objectives. Part three involves identifying fiber
properties necessary to meet the specified
objectives. Explanations of how/what each
physical, mechanical and chemical fiber
property contributes to the objectives are
required. In Part four students select two
different fibers containing the desired
properties and explain how they will contribute
to performance of the product. Part five
involves selection of fabrics, methods of fabric
formation, yarn type, design and color
application and finishes.

The swatchboard, developed after the
paper, provides visual illustrations of Parts 1-5.
This strategy was used in an introductory
textiles class for two semesters. Students
evaluations of the strategy were positive and
resulted in clarification of instructions and
swatchboard format. Weakness in visual
presentation skills were apparent for some
students. Plans are to repeat the strategy and
have students develop visual presentation via
computer.

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REACHING YOUNG FAMILIES WITH CLOTHING EDUCATION

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Traditional delivery strategies have had limited success in delivering consumer education programs to hard to reach audiences. Time and transportation to attend meetings are deterrents to families who need basic consumer information to extend income and promote family well-being.

To reach these audiences, an Extension interdisciplinary team developed and pilot tested work-site lessons for lunch breaks or before or after work. The clothing consumer education "Clothes for Kids" series is directed to parents with preschool children, and can be taught by Extension Home Economists or volunteers. Each lesson includes a brief video tape and low reading level flyer. The five lessons are: 1) Clothes That Last, 2) Shoes for Healthy Feet, 3) Keeping Kids Spotless, 4) Independent Dressing, and 5) Clothes that Keep Kids Safe.

In addition to being pilot tested at work-sites, the video tapes will be tested in health department waiting rooms.

After the series has been pilot tested and refined, it will be offered to media libraries in the 101 County Cooperative Extension Centers for use by local clientele.

SAFE USE OF CHEMICALS TO CARE FOR AND REFURBISH APPAREL AND HOME FURNISHINGS

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Extension clientele have two major concerns in keeping textiles refurbished: environmental concerns and maintenance for wear life and appearance.

An interdisciplinary Extension team addressed these concerns by developing a computer program, "HOMECARE". HOMECARE offers solutions to over 500 apparel and home spot and stain problems. The program consists of four categories of problems (Cosmetic/Hygiene, Food/Beverage, Household/Chemicals, Other) and three surface categories (Apparel/Fabric, Interior Household, Exterior Household). The solutions are arranged in order of simplicity and use of non-toxic cleaning products.

Agents were trained to use HOMECARE as part of an inservice training, which included legislation on recycling and source reduction, composition of cleaning products, how cleaners work, and effect on the environment.

To provide additional support, Clothing Specialists developed a publication series, "Protect Your Investment." The computer program and publications have been used extensively to respond to clientele problems state-wide.
4-H CLOTHING ENCOUNTERS -- A SPECIALTY CAMP

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In recent years 4-H Clothing enrollment has been declining. Extension agents felt that a camp targeting this subject matter would increase interest and enrollment. A committee of extension home economists, extension 4-H agents and state specialists have worked together to develop a three year curriculum for both juniors (ages 10-12) and seniors (ages 13-18).

The overall goal of the camp is to create an awareness and to encourage an interest in clothing and textiles by providing an overview of clothing and textiles, improving construction skills, and nurturing a system to develop self-esteem.

Specific objectives are to increase involvement in the areas of clothing and textiles at the county level; introduce youth to new fabrics and construction techniques; increase knowledge and skills in the areas of construction, selection, presentation of self; consumerism, self-esteem, demonstrations, fashion shows, record keeping, and care of clothing; explore possible career choices; and develop leadership and citizenship skills.

In 1991 a short term evaluation showed an increase in knowledge in all areas of content. A six month follow-up evaluation had a 55% rate of return with 48% stating they had used the information. A reaction evaluation in 1992 found that all 30 juniors had a better understanding of color, had learned about properly using laundry products, had gained skills in keeping records and had gained skills in using a serger. The 19 seniors had a better understanding of how to store clothing, had learned how to care for napped fabrics, had gained skills in sewing on Ultrasuede®, had learned how to make better use of their wardrobe, and had gained skills in constructing a denim jacket.

LEARNING CONTRACTS FOR LEARNING DIVERSITY

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Diversity of learners in the classroom presents excitement but also poses problems in developing appropriate teaching strategies. Assessment of students' different educational backgrounds, learning styles, needs, and goals is vital to ensure that learning can occur. The non-major students enrolling in the Visual Merchandising class bring perspectives from disciplines that enrich the learning experiences of all the students.

An effective teaching strategy for addressing this diversity is the learning contract (Knowles, 1986). The learning contract specifies learning objectives, resources, activities, evidence of learning, and evaluation criteria.

The learning contract 1) provides the students with the opportunity to take responsibility for planning and carrying out their own learning, 2) accommodates individual differences in experience, interests, and learning needs, and 3) broadens the application of visual merchandising guidelines to related fields.

Students develop a contract for a field work project. Individual conferences one month into the semester assess the project and expectations. A midsemester conference checks progress and facilitates the work. A final report in class concludes the project.

Diversity of student projects reflects students' own diversity. Projects include evaluating a retailer's compliance with the Americans with Disabilities Act, designing a point-of-purchase display, assessing space valuation and sales productivity, and merchandising floor and wall areas.

Most of the 75 students involved with the learning contract over three semesters appreciated being able to tailor their needs into the course. Although some were initially anxious about the amount of freedom offered by the contracts, by the end of the semester most felt the process had been productive and liberating. In this sense, the learning contract not only enhanced their performance in the course but validated their own learning process.

Reflective Learning: A Teaching Tool and Method of Evaluation

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Internship experience is a vital tool for enhancing the teaching–learning mode. The basic objective is to provide students with experiences and activities which expand on and illustrate concepts used in classroom instruction. Students should have the opportunity to reconstruct and conceptualize what they have learned. According to Erdynast (1981, p. 21), “Self–respect, self–esteem and self confidence are considerably enhanced when students realize just how much they have learned, how much they know and how much they are capable of doing.”

The interns were informed of course requirements inclusive of video–taping of the oral presentation. Objectives for video taping were to: a) sharpen students' conceptual skills of analysis, synthesis and diagnosis relative to unstructured learning experience; b) expose students to the use of video as a method of evaluation; and c) improve students' oral communication skills. Presentations were video–taped during post–sessions and invitations were extended to site supervisors.

Video presentations were used by the faculty supervisor as a method of evaluation. Based on a review of video presentations, information was shared with students during one–on–one exit conferences. Specific points shared with students related to the value of what was learned and how the experiences helped their professional and social development. Other methods of evaluation included: weekly reports, site visits, employer's evaluation, summary papers, and student's participation in pre– and post–orientation session.

Video presentations were used to inform students about experiences and activities that may be accomplished. Video tapes were shown to students during pre–orientation to enhance professional and social development. Internship experiences should use a variety of methods which promote students' intellectual abilities to observe and participate while experiencing, reflecting and generalizing. Use of visual presentations in internship programs can maximize quality of experiences for students with regard to integrating classroom theory with professional practice.

Reference

The Ethnographic Case Study: A Critical Inquiry Approach

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As university professors, it is important to provide students with a realistic exposure to what the professional world is like. As a result of seeking ways to address this issue, the ethnographic case study technique was explored. Ethnographic research is a qualitative methodology that requires the researcher (student) to interpret the real world from the perspective of the informers in the investigation (Dobbert, 1982).

The purpose of the ethnographic study was to provide a capstone experience in a senior level apparel merchandising class that would help students integrate academic content with professional experiential knowledge. In applying the ethnographic methodology to a classroom exercise, the student researchers work together with informants to produce a description of some organizational phenomenon, problem, or organizational culture in general. Such topics as leadership style, motivational techniques, or corporate culture would be appropriate for students to pursue through the ethnographic method. The specific skills developed during the project include: 1) interview skills - students learn how to frame questions to acquire specific information; 2) ability to synthesize information-student must take interview information and integrate it with observational data in order to relate it to theoretical concepts; and 3) writing skills - students translate and interpret findings into a written case study of the organization or problem.

The students participating in this project were undergraduate students enrolled in a senior level apparel merchandising and management course. It was suggested that students explore topics relevant to the retail industry in the case study assignment developed to support this qualitative or humanistic type of research. The steps in planning an ethnographic case study were explained as: 1) select general topic; 2) select site and informant; 3) data collection through interviews and field observation; and 4) analysis and writing.

The written assignment was submitted in two phases. The first phase included a one page proposal outlining the topic the student would be reflecting on and the proposed questions the ethnographic case study would answer. The second phase consisted of the written ethnographic case study including an interpretation of what was said and observed, a profile of the work site and informant, and major categories of information compiled from analyzing the data. Dobbert, M.L. (1982). Ethnographic research: Theory and application for modern schools and societies. NY: Praeger Publications.
WRITING PATTERN INSTRUCTIONS: A STRATEGY TO IMPROVE THINKING AND COMMUNICATING
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Working from the premise that students learn as they write, an assignment to write instructions for the construction of a shirt was designed. The student was asked to write instructions for sewing the pattern which followed common construction practices, reduced construction errors, shortened construction time, and achieved a quality product.

This writing assignment has been utilized two semesters and has been completed by 30 students. The assignment required the student to identify, to organize, and to convey construction steps in a logical sequence. Mapping was employed as the first step in the assignment. Mapping is a visualization technique that encourages creative minds to think adequately and clearly about a problem (Brown, 1982). This technique was incorporated after the first semester the assignment was used and 50% of the students failed to identify all construction steps necessary to complete the shirt. The charting technique employed by Wild (1972) for organizing assembly systems was utilized as the intermediate phase of the instruction writing process. Incorporation of this technique reinforced knowledge of apparel construction and of the interdependence of each step of the construction process. The top 10-15% of the students were able to adequately complete the assignment without the mapping or charting steps. However, the others did not structure the material well. Mapping and charting enabled them to solve the problem without step-by-step instruction. The narrative of the instructions was completed with the use of a checklist for writing instructions written by the professor.

The last evaluation of this assignment was completed utilizing a 5-point Likert-type scale and an open-ended essay. Overall, the majority of students evaluated the writing assignment as: (1) relating to their sewing/design experience; (2) targeting an audience with whom they were familiar; (3) aiding in identifying and organizing construction steps; (4) including the details about the problem to be solved; and (5) providing experience and evaluation to increase writing skills. The assignment was described as a true problem to be solved.


TWENTIETH CENTURY COSTUME AS A WRITING INTENSIVE, CRITICAL INQUIRY BASED COURSE
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Twenty-first century dress course work meets a university requirement that each student complete a literacy course within the content major.
Each student writes five short papers evaluating an information source such as personal interviews, historic museum photographs, popular periodicals, short stories, films, or advertising. Feedback on one paper is given prior to preparation of the next paper, allowing suggestions for improvement to be incorporated into the following essay.
Emphasis on writing skills continues with preparation of a term paper. The topic, selected by students from an instructor prepared list, relates a decade's popular culture to historic dress. Past topics include McCarthyism (1950's), hippies (1960's), and fitness (1970's). After selecting the topic, students read historic literature for an overview of the decade, research relevant periodical literature, then synthesize this information with that obtained from a source evaluated in one of the short papers. Drafts, prepared by mid-semester, are reviewed by the instructor and peers prior to completion of the final paper.
Once the written term papers are completed, peer groups of six students give oral presentations of their popular culture topics. Creative presentation formats have included interview shows, a "day at the Atelier" and pictionary.
With half the graded coursework involving writing and critical analysis, student improvement in these crucial skills is promoted.
POST CARD PRENOTIFICATION: AN EXPERIMENT IN SURVEY RESPONSE

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Part of a larger mail survey, the purpose of this experiment was to determine the effects of postcard prenotification on response rate among ITAA active members. A mailing list was purchased and a random sample of 450 members drawn. Half of the members were assigned to the experimental group and were sent postcards stating they should expect questionnaires in the near future. The other half of the sample were assigned to the control group and received no prenotification. About 10 days after postcards were sent to the experimental group, questionnaires were sent to the whole sample.

A total of 230 usable questionnaires were returned. Rate of return for the experimental group was 51% (n=114) and 52% for the control group (n=116). T-tests were run to compare the two groups in terms of return speed (number of days from questionnaire mailing to return receipt) and quality of response (ratio of questions answered to total questions on form). Differences between groups was approaching significance in relation to return speed (p<.07). Mean return speed for the experimental group was 12.7 days and the control group was 14.1 days. No significant difference was revealed between groups in relation to quality of response.

Many researchers in ITAA conduct surveys among professional groups and it is important that they receive the most return from their research. Because many of these groups are oriented toward research and education, the use of prenotification may not be necessary to improve participation in mail surveys.

THE RUSSIAN RETAIL DISTRIBUTION SYSTEM: STRUCTURE AND PRODUCT PROCUREMENT

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1991 was a watershed year for the Soviet Union. The shift to a market system creates many opportunities for foreign businesses, but western manufacturers must understand the retail distribution system to be successful traders with Russian firms. The purpose of this study was to gather exploratory data on the Russian retail distribution system. A series of 8 in-depth interviews were conducted with retail owners, managers, directors and government officials. Questions were asked regarding product procurement strategies, and organizational structure. Sales volume of the sample varied from 3 billion rubles ($93 million U.S.) to 23.9 million rubles ($750,000 U.S.). The person responsible for "buying" merchandise was usually female, in middle management, and had from 5 to 10 years of previous retail experience. All respondents were college graduates.

The shift to a market driven economy affected the product procurement process in state owned retail outlets; the "buyer" had the freedom to source 25% of the budget from small enterprises or foreign companies. Lack of a convertible currency hinders importation of goods. Buyers indicated that the level of imported goods had decreased in the first 8 months of 1991, dropping from 60% to 10% in six months, reflecting the low value of the ruble. Goods were most frequently imported from other Eastern Europe countries. More changes in product procurement are expected to occur as a result of the changing economic environment.
PILOT STUDY:
DESIGN AND MARKETING AS A SERVICE FOR DEVELOPING COUNTRIES

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The goal of this study was to develop a model for a design and marketing service for third world countries exporting to U.S. markets. Third world craftspeople have limited access to U.S. market information, so assistance in design and marketing of their products may ensure that a saleable product reaches the appropriate target market. This service could enable entrepreneurs in developing countries to become more financially independent.

The researchers have developed a pilot program to assist a Bolivian Cooperative in design and marketing their products. The purpose of the study was to determine success of a service which would extend a product line from a developing country into new or existing markets. In keeping with the unique attributes of alpaca fibers, the researchers designed an upscale, high fashion line of alpaca knitwear styled within the production capabilities of the Bolivian artisans. Sizing and quality specifications were determined and garments were knitted and shipped to the researchers for evaluation. Some garments were then returned to Bolivia for reworking and reshipment. Promotional materials were developed for the line and potential markets were identified. The line was shown to vendors in three geographical areas of the country. Orders were then transmitted to Bolivia for production. Garments were then shipped from Bolivia to the researchers who independently acted as importers, quality inspectors and distributors. All orders were filled, shipped, and payment was received.

Based on favorable response to the researchers' design and marketing service, styles were developed for the Fall 1992 season. Close communication with retailers enabled the researchers to tailor the new line to specifically reflect the tastes of their customers. As a result, potential new markets were identified. Preliminary evaluation indicated successful completion of the goals for the pilot study.

Tailoring a product to meet the desires or needs of a particular market segment performs a service which enables a third world producer to compete successfully for a share of the U.S. markets. This concept, providing a design and marketing service to assist third world entrepreneurs, is a new thrust for our profession.

IMAGE DIMENSIONS AND POSITIONING OF APPAREL STORES IN KOREA

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Despite its significance, a classification system encompassing all apparel store types is lacking in Korea. The purpose of this study were: (a) to identify image dimensions of apparel stores in Korea according to consumers’ perceived importance of store image attributes; (b) to classify apparel stores in Korea according to consumers’ ratings of image attributes for their most preferred store; (c) to develop a positioning map of apparel stores in Korea according to the most salient image dimensions; and (d) to describe the target customers for each store type in Korea.

Five hundred twenty questionnaires collected from female adults living in Korea were analyzed. The result indicated that the image dimensions include product quality, shopping convenience, location convenience, promotion, atmosphere, product information, design characteristics, and price. Perceptions of store image revealed five store types according to their most salient discriminant characteristics: famous brand upscaled store, couture designer store, specialty store, wholesale mart retail store, and independent local store. The positioning map of apparel stores identified product quality and location convenience as patrons' two most important criteria in choosing a particular store type. Most of the respondents exhibited multi-store patronage behavior and indicated significant differences in the perceived importance of image dimensions between different store types.

In summary, the measurement of store image was utilized as an effective method of store classification and identification. The results denoted that customers have a tendency to patronize a store which has a good image along the dimensions that they consider as most important.
DISTINGUISHING THE CAUSE OF TEXTILE DAMAGE IN FORENSIC APPLICATIONS USING THE SCANNING ELECTRON MICROSCOPE

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Forensic scientists are suggesting that a scanning electron microscope (SEM) could identify causes of fiber damage in textile materials. No forensic SEM protocol has been found in the literature. The purpose of this exploratory study is to investigate the reliability of the SEM procedure to distinguish between cuts and tears, and then identify the force/instrument causing the damage.

The authors replicated an experimental procedure reported by Stowell and Card (1990). A multifilament nylon plain woven fabric was used. The cause of the fiber damage (sharp knife; sharp scissor; and impact tear) was the independent variable. The severed specimens were stub mounted, sputter-coated and viewed on a Cambridge Stereoscan 250. Individual severed fiber images were oriented in a vertical plane. Micrographs were filmed at 1000X.

Fourteen textile science students were given the SEM micrographs as unknown sources of fracture. Each coded micrograph was compared to single fiber fracture models for knife, scissor or impact tear. Students identified each micrograph as scissor, knife, tear or undefinable. The probability of assigning the correct source of fabric damage was calculated.

The 446 fiber ends observed or photographed did not follow Stowell and Card's results which were based on 67 fiber micrographs. They reported only a 'squeezed' end appearance for scissor cut, only a 'smooth and bulbous' end for tears and 3 different characteristics for scalpel cut. However, this study found overlapping characteristics of fiber end appearances in all 3 sources tested.

The calculated probability of an assigned cause being the actual cause was less than 0.50. The procedure identified tears from cuts but observers could not distinguish knife from scissor cuts. These conclusions are limited to the fiber, fabric and damage variables tested in this study. However, these results when compared to those published by Stowell and Card (1990) question the reliability and validity of the SEM to distinguish the source of fiber damage in forensic investigation.

According to these findings, single fiber fracture models were inappropriate reference data for fibers severed as part of a yarn assembly.

Reference:

PLANT FIBER MORPHOLOGY

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Plant fibers typical of those used by prehistoric native Americans in the manufacture of textiles have been collected from both Ohio and Georgia. Separation of the fibers from plant stems (both fresh and dry) was done by hand peeling after each of four treatments on plant stems: 1) hammering, 2) soaking in water for two weeks, 3) boiling in water for six hours, and 4) boiling in water and potassium carbonate for six hours.

Examples of plant stems that readily yield many fine and soft fibers are stinging nettle, Indian hemp, intermediate dogbane, and swamp milkweed. Morphological characteristics for each plant fiber were identified using the techniques of brightfield, darkfield, polarized light, phase contrast, and differential interference contrast microscopy. Differences in morphological features were noted between different plants within the same treatment and within the same plants between the four different treatments. For example, clusters of crystals forming a string or sprinkled in the cambium were found in the stinging nettle and swamp milkweed. Indian hemp and dogbane have an outstanding "scaley" surface appearance which is related to a series of surface folds which form as the fibers grow. Other features noted include square-shaped structures within the lumen of dogbane and fibrillation of swamp milkweed. Most obvious of the effects of treatment is the brown coloration of the lumen which forms upon boiling the plant stems. Characteristics unique to each plant fiber and treatment can be useful in identifying plant fibers of unknown origin and allow the analyst to infer information concerning the history of those unknown fibers as well.

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PRODUCT KNOWLEDGE SEMINARS

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The Product Knowledge Seminar Project in an advanced textiles course is designed to assist students in transferring scientific textile knowledge to practical applications in merchandising. The project follows an inquiry-oriented approach combining laboratory testing, library research, and marketing applications.

In the first phase of the project, student teams identify textile-related information of innovative apparel fabric swatches. Fiber content information is provided but yarn, fabric, and wet processing characteristics (e.g., yarn type, denier, weave, thread count, and weight per area) are determined during laboratory exercises.

Secondly, students synthesize fabric performance implications in two papers. The first paper describes the expected durability, comfort, care, and aesthetic appearance of the fabric due to its fiber content. The second paper projects fabric serviceability resulting from yarn structure, fabric structure, and wet processing.

Thirdly, students design a retail product appropriate to the fabric, illustrate its appearance and, in a brief paper, justify the fabric’s suitability for the design.

Finally, student teams develop and present a product knowledge seminar to assist sales associates in marketing the hypothetical product. The seminar includes product illustrations, descriptions of the textile nature, expected performance characteristics, recommended care procedures, and textile-related information for in-store promotional materials.

Project evaluation focuses on textile information accuracy, product design suitability, and seminar sales-orientation and motivation.

FASHION AND FUNCTION: CLOTHING FOR THE CHANGING FIGURE

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Integration of the textiles and clothing discipline supports individuals and families in times of change. One major program thrust relates to the maturation of the population and the need for appropriate clothing for older adults.

Fashion and Function: Clothing for the Changing Figure was developed as a leader training program to provide selection help for older women. Objectives are that participants will: 1) understand common figure/body changes of the aging figure, 2) determine clothing design suggestions to accommodate the changing mature figure, 3) appreciate that being well dressed and comfortable gives a person a psychological lift and meets social needs, and 4) become aware of the National Apparel Sizing Project and goal to influence apparel sizing to better accommodate the figure needs of older women.

The leader program package includes a teaching outline, transparencies, and slide set. Visuals show common body changes and garment examples, which illustrate particular style lines, darting, shaping, and ease features to consider. Volunteers model garments with desired style features which relate to figure needs for physical comfort, aesthetic appeal, and other lifestyle needs. A set of questions to guide an optional panel segment is provided. A fact sheet supports the lesson.

Ninety Ohio Extension Homemaker leaders were trained, some of whom retaught to 305 Extension homemakers. As a result of the lesson, evaluations reflect that program participants can identify specific design details for figure needs and apply to clothing selection.

In addition to leader training, variations on the program were presented in a number of large group settings. Evaluations reflect high ratings of usefulness to participants. One group responding to a 3-month delayed evaluation shared specific style lines that they learned to better meet needs, especially related to waist, abdomen, hip width and back width. Appreciating the physiological changes as a normal process was reassuring to several.
APPAREL FOR PERSONS WITH PHYSICAL LIMITATIONS VIA SATELLITE VIDEOCONFERENCE

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An educational videoconference featuring textile information and examples of clothing designed to aid men and women in dressing independently was presented via satellite to 77 counties. The main objectives for the project were: to provide an understanding of the importance of independent dressing for caregivers and patients, to identify the specific clothing needs of a patient, to develop an understanding of how to select garments that will enable independent dressing, and to identify sources of adapted clothing.

The inability to manage clothing is often a key factor in the decision to place a person in a care facility. Adaptation techniques and education can promote dressing independence to approximately 30 million Americans with permanent disabilities.

The video production consisted of three segments: 1) a physical therapist and a paraplegic patient discussed clothing problems and the importance of self dressing, 2) a nursing home director discussed clothing issues, and 3) a fashion presentation featured garments with modifications or adaptations.

County home economists served as site coordinators and were mailed participant evaluation forms and publicity information to display at nursing homes, hospitals, rehabilitation centers, elderly nutrition sites, churches, schools, libraries and community centers. Follow-up evaluation forms indicated that participants shared information to 314 persons or groups. The most useful information reported by the respondents included: the list of resources for obtaining ready made clothing, numerous ways of using velcro and methods of adding wearing ease to clothing.

As a result of the videoconference, 15 cooperative extension workshops have been presented. Four workshops were planned for Eldercare training. The videotapes are used in classes for apparel design, gerontology, physical therapy, hospitals and nursing homes.

HIP PROTECTIVE GARMENTS AND WEAR COMPLIANCE OF FRAIL ELDERLY PERSONS

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Over 200,000 hip fractures result from falls of frail elderly persons annually in the US, reducing their quality of life, and accounting for over seven billion dollars in health care costs. A hip pad protective garment is one intervention being tested in clinical trials of the three-year national project, 'Frailty and Injuries: Cooperative Studies of Intervention Techniques', funded by the National Institute on Aging and the National Institute for Nursing Research.

The objectives of Trial II were: 1) to determine wear compliance rates for hip pad protective garments; 2) to assess perceived fit and comfort; 3) to identify factors that influence compliance.

Three garment styles, of 90%/10% cotton spandex knit, were designed: a female pull-on style, a fly-front style, and a crotchless style for incontinence. Foam pads, engineered to absorb and distribute the shock impact of a fall, are inserted into outer side pockets of the garment.

Sixty-four participants completed a two-month wear period. Overall compliance rate for waking hours was 80%. Thirty-six falls were reported. Participants were wearing the garment in 75% of the falls. No hip fractures occurred in any of the falls.

Participants responded to a questionnaire which assessed the perceived fit, comfort, utility, and safety of the garment, and also elicited responses about the physical appearance of the wearer. Responses to these items were used to identify factors which affect compliance. Forty-one questionnaires were returned. The sex distribution for the sample was 68% female, 32% male and the mean age was 74.

Ratings were highly favorable for fit, comfort, and utility. Wearing the hip pad garment did not affect perceptions of safety and physical appearance. Chi-square tests revealed that perceptions of fit, overall comfort, safety, and appearance were not associated with willingness to wear the garment, suggesting that compliance is not affected by these factors for this sample.
DEVELOPMENT & EVALUATION OF A PROTOTYPE ATHLETIC SPORTS GIRDLE

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Athletic girdles have been developed to provide: conditioning, thermal insulation, and support for the groin, hamstring, and quadriceps muscle groups. Interviews with university football players, coaches and equipment managers identified comfort and fit problems associated with the girdles currently being used by a university football team. Objectives of this research included: develop a prototype girdle with improved comfort and fit, and evaluate the prototype in terms of subjects' athletic performance, skin temperature and perceived comfort.

Six male volunteers from the university coaching staff served as subjects. All were physically trained individuals. Three garment treatments were specified: a non-girdle, a currently-used girdle, and the girdle prototype. A repeated measures Latin square design was used for a total of eighteen 20-minute test sessions. Prior to testing, subjects were requested to abstain from strenuous exercise for 48 hours to prevent muscular fatigue. The testing procedure consisted of a four-phased exercise protocol on a Stairmaster. Dependent variables were: 1) skin temperature over the quadriceps, hamstrings, and gluteals; 2) subjects' comfort perceptions; 3) athletic performance assessed by calories burned, floors climbed, and miles climbed; and 4) difference of pre- and post-circumference measurements of the upper thigh.

A significant increase in circumference for all three muscle groups occurred, thus substantiating players' fit complaints. ANOVA results showed a significant subject effect but not garment effect for all of the athletic performance measures. There was a significant garment effect for 12 of the 14 comfort ballot descriptors. ANOVA results for skin temperature indicated a significant subject, garment, and time effects for all muscle sites. Both girdles maintained a higher skin temperature during exercise and cool down. The prototype was rated more favorably for several comfort descriptors.

CUSTOMER ACCOUNT BOOKS:
TOOLS FOR UNDERSTANDING COLONIAL AMERICAN TEXTILE HISTORY

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Despite their biases, probate records have given researchers a rich glimpse into the lifestyles of early American colonists. But probate records represent an accumulation of goods at the time of death rather than a flow of goods consumed over time. Account books do not have that limitation: they reflect business transactions recorded on a daily basis in double entry bookkeeping style.

Rich in detail, account books can include letters, ship invoices and store inventories, as well as customer accounts in the form of day books, journals and ledgers. Date of purchase, price and highly descriptive entries of cloth and related items appear. The cost to operate the business can include services, such as mending and laundering and the maintenance cost of slaves. Customer affiliation and other financial transactions such as barter may appear also.

Account books can contribute to our understanding of colonial lifestyle in many ways. Textiles can be viewed beyond their use as status symbols; consumer behavior in the consumer revolution of the 18th century can be examined. Regional case studies of the marketing and merchandising of textiles and apparel items are possible.
COMING TO TERMS WITH "POSTMODERN": THEORIES AND CONCEPTS OF CONTEMPORARY CULTURE AND THEIR IMPLICATIONS FOR CLOTHING SCHOLARS

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Although "postmodern" has become a part of everyday language, many find the term confusing. At times it appears to be a simple reference to avant garde cultural products; at other times to be a fashionable synonym for "the present." These interpretations, though not incorrect, do not address the significance of the term or the implications of the ideas for which it stands.

"Postmodern" refers to a body of critical theory about the nature of contemporary society. The theory draws on the complex vocabulary of philosophy and aesthetic criticism, and has a unique vocabulary. My purpose in this paper is to come to terms with the language and ideas of postmodern theory, and to describe: deconstruction; suspicion of narratives; the will to the sublime; the principle of pure difference; the collapse of authority; the random play of signifiers; bricolage; and heterotopia.

The central issue in postmodern theory is the idea that western culture has undergone a radical break from modern modes of thinking about, understanding, and representing the world. Postmodern thought acknowledges the death of progress and a loss of confidence in rational thinking and in science. Ethical consequences include the possibility of increased sensitivity to ethnic, social, and cultural differences, and a concern that in postmodern culture, difference and opposition are effectively neutralized.

Fashion and style are recognized by social critics as key areas in which expressions of difference, and the subsequent neutralization of these expressions occur. Postmodernity will raise questions and pose challenges for all clothing scholars.

ARTIFACT ANALYSIS: A MODEL FOR DRESS

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Although several excellent models for artifact analysis have been developed and described in the literature (Fleming, 1973; Prown, 1982; Smith, 1985; and Zimmerman, 1981), none were developed specifically for textiles or dress. In 1988 Ricky Clark convincingly demonstrated that the Fleming model could be satisfactorily applied to quilts whose makers were known. How satisfactory the Fleming model would be for textiles of unknown provenance remains unclear. None of the proposed models perfectly accommodate the complex properties of clothing, in part, because none of the models were developed for nor tested on articles of dress. In 1989 Severa and Horswill, offered an example of material culture analysis of clothing based on modifications of models proposed by Fleming (1973) and Zimmerman (1981). Their work was an important contribution to the study of dress, but additional approaches to artifact study should be considered.

In this paper we describe a model for analysis of clothing based on Prown’s and Smith’s models for artifact analysis. Smith (1985) simplifies the complex Fleming model and Prown (1982) offers an open-ended approach which is more readily applicable to dress. We describe the modifications that we recommend for analyzing dress, offer a case study of the application of the modified model to a 1940s nurse’s cape, then describe the rich and useful insights gained through the process of systematic material culture analysis. We posit that richer cultural insights are gained, more intellectually engaging issues are raised, and theories and hypotheses based on physical evidence are formulated more readily with this combined model than by other methodological approaches.

APPLICATION OF MORPHOMETRIC METHODS TO BODY FORM ASSESSMENT FOR PATTERNMAKING

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Little is known of the relationship between pattern shape and human body form. Recent research has focused on patternmaking geometry. Cylinder and cone models have been studied with the measurement techniques used to collect data. This study used the model implicit in flat pattern methods of patternmaking: the bust modelled as a cone with bust point as apex. A morphometric measuring technique was adapted for data collection.

Morphometrics compares biological forms and describes shape change. A technique by Yasui (1986) for measurement from figure centroid to outline was combined with the flat pattern conic model to produce patterns for the front bodice area of female dress forms.

Twenty-four forms were measured along lines from bust point to selected figure landmarks; the angles between lines were also measured. Line and angle data were analyzed, patterns drafted for each form, and an average pattern for the sample drawn.

Angle measures captured the variation in figure shape; line data were more consistent. The average sample pattern reflected the shape of few forms. Further use of the conic model and radial measurement is planned for use with live subjects.

A METHOD FOR TESTING PERCEPTION OF FIT BASED ON ASTM SENSORY PERCEPTION METHODS

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The concept of apparel fit is difficult to quantify, but providing apparel that fits well is an important goal in the production of quality apparel. In pursuit of this goal, computer-aided pattern drafting technologies are being developed that require quantification of fit characteristics in new ways. To explore one aspect of the complex problem of apparel fit, somesthetic and kinesthetic responses to the fit of pants were investigated using an adaptation of an American Society for Testing and Materials (ASTM) sensory perception test.

The ASTM test method used, the Constant Stimulus Difference Test (or Difference From Control Test), was designed to identify just noticeable differences (jnd) in tastes or smells. The goal of the test adaptation was to identify the recognition threshold in apparel fit; that is, the smallest difference in garment dimensions (ease values) that can be consistently perceived and identified.

The test samples for this study were a set of pants made using very precise computer generated patterns. Four experts in the fit of apparel were chosen to participate. The pants consisted of a control pair custom fitted to each panel member, and a set of pants that varied from the control pair by only 5 mm, 10 mm or 15 mm at one location (waist, hips, or crotch length).

When the pants were presented as a blind comparison to the control, the panel members were able to perceive differences as small as 5 mm in pants waist size. Differences of 15 mm were perceptible at the hip and crotch, smaller differences were not consistently perceived at these locations.

The acceptability of specific variations in pants fit was tested using the same set of pants. Participants were asked to rate each of the test pants in terms of how wearable they were. This test revealed much diversity between individuals in which of the pants were found tolerable.

Information from further tests of both ease perception and tolerance for misfit will result in valuable information on sizing for both ready-to-wear and custom-fitted apparel.

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A FACTOR ANALYTIC STUDY OF SMALL BUSINESS FAILURE

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The specific purpose of the research was to identify factors contributing to the failure of small business apparel and accessory retailers.

The study sample consisted of 245 previous small business owners who experienced business failure in apparel and accessory retailing between 1987 and 1991. Research instruments in this study included telephone interviews and mailed questionnaires. Ninety one of the 130 small businesses responded (70.0%).

Responses to a business failure measure were analyzed by principal components factor analysis with orthogonal rotation. Four factors, accounting for 64.5% of the variance explained, were used in this study. Eleven items were identified under Factor 1 with loadings ranging from .86 to .51. An analysis of these statements were interpreted as items related to managerial and planning functions (Cronbach’s alpha = .88). Factor 2 identified factor loadings ranging from .75 to .60 (Cronbach’s alpha = .71); items were related to working capital management. Factor 3 addressed the competitive environment. Factor loadings ranged from .84 to .45 (Cronbach’s alpha = .69). Factor 4 identified items related to growth and overexpansion (Cronbach’s alpha = .57).

While the study results show that apparel and accessory small business failures are the result of poor performance and inefficiencies in four general areas, neither the factors of the variables within each factor should be viewed as being independent. The small business firm operates in a dynamic environment where the effects of poor managerial performance and changing environmental characteristics permeates throughout the organization.
BUILDING NETWORKING OPPORTUNITIES FOR SEWING RELATED COTTAGE INDUSTRIES

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During the 1980s, entrepreneurship workshops on starting home based businesses proliferated, yet few programs helped new entrepreneurs grow and progress as professionals in their business fields. Building Networking Opportunities for Sewing Related Cottage Industries was developed by the Ohio Cooperative Extension Service to organize groups of custom seamstresses into trade associations to enhance their position in the marketplace by increasing their sense of professionalism, providing opportunities to network with other seamstresses, and sharing of expertise.

Program activities included three conference calls with presidents of four existing groups of custom seamstresses (one with representatives of the Professional Association of Custom Clothiers and the American Home Sewing and Craft Association) and three meetings with core members of the groups. An attorney worked with the group on filing for non-profit status as trade associations and prepared a generic document for existing or yet to be organized local groups to use in filing for non-profit status as trade associations. At other meetings, groups shared community service activities to enhance visibility and strategies for handling problem situations faced by home based custom sewing professionals.

A one day conference, "Custom Sewing Professionals—Enhancing Your Image" designed and publicized for business persons rather than hobbyists, attracted 167 persons with 24 others closed out due to space limitations. The conference included planned time for networking as well as an opportunity to showcase unique work of Ohio dressmakers and fabric artisans.

A participant directory with business specialty was published to share information and encourage networking. Individuals not in groups made contacts to form additional local trade associations.

SMALL INDEPENDENT APPAREL RETAILERS: RISK PROPENSITIES, AND ATTITUDES TOWARD IMPLEMENTING CHANGE

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In recent years small independent retailers have found themselves facing uncertain business conditions as large discount chains locating in rural communities have captured a large portion of the consumer market. To remain successful, it is critical that these retailers respond to the pressures that require a change in their business operations. Each decision they make will become more important to the survival of their business, and every decision will entail some level of risk or change.

This study was designed to examine risk propensity and attitudes toward implementing change among independent apparel retailers located in communities with populations of less than 50,000 in a midwestern state. The survey instrument consisted of three parts. Part I measured to what extent and how recently retailers had updated their operations. Part II included the Trumbo Change Scale and the Farley test for risk takers, as well as self-ranking measures on risk propensity and attitudes toward change. Part III was used to obtain demographic information.

Responses to a mailed questionnaire (n = 169) indicated that while the retailers as a group were not financial risk takers, male retailers were more likely to take risk than female retailers. A significant correlation (p < .01) was found between respondents’ age and willingness to accept change in the work environment. Since the majority of the respondents were females, over age 55, with lower propensities to take risks or accept change, a key to their future existence may be attitudinal change. The results of this study suggest that small apparel retailers may not yet recognize change as a necessity of existence. Efforts to assist these retailers in long-term planning may need to focus on changing this attitude.

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ENHANCED CURRICULUM RESULTING FROM A MERGER

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In the late eighties and early nineties the term "merger" struck fear in many people throughout the United States. This usually meant loss of jobs, new management, new procedures and workers' lives turned upside down. Mergers also became commonplace in institutions of higher education. One such merger took place at our institution when the departments of clothing, textiles and merchandising and housing and interior design merged. College-wide strategic planning sessions had resulted in the establishment of a new mission and the identification of seven descriptors of the types of programs desired within the college. Descriptors identified were globally sensitive, technologically sound, scientifically based, socially and ethically responsible, innovative and entrepreneurial, management-leadership oriented, and programs to enhance the quality of life.

One of the first actions of the "merged" department was curriculum restructuring to reduce the number of courses taught while at the same time enhancing the program. Information was collected from futurists, professionals in the field, colleagues, students, alumni and current literature. The directive given was to begin with "zero" curriculum. Faculty first determined the undergraduate options to be available within the department. The next step was to identify learning outcomes desired for each option. Then lists were compared and common learning outcomes were identified. This resulted in three sets of learning outcomes: outcomes common to all majors, outcomes common to design majors (both apparel and interior), and outcomes common to apparel majors (both design and merchandising).

Course restructuring resulted in the development of four "core" courses for all students and three courses which cut across two options. Faculty in each of the specialization areas then planned the remainder of the program for their option.

Two of the courses were taught spring semester, 1992, and the others began fall, 1992. Already an improvement in the quality of student work is evident, particularly in design classes. Several seniors heard about the courses and took them as electives so as not to "miss out." Somewhat to our surprise, the merger resulted in renewed faculty enthusiasm and in an enhanced curriculum for all majors.

WRITING-ACROSS-THE-CURRICULUM: TEACHING STRATEGIES IN A MERCHANDISING MANAGEMENT PROGRAM

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The focus of our curriculum development was to incorporate developmental writing assignments into a sequence of courses within the merchandising management curriculum. The objectives of this strategy were 1) to develop a coherent progression of developmental writing activities within four merchandising management courses given limited resources, 2) to facilitate students' thinking and writing skills, and 3) to improve students' engagement with and application of the subject matter.

Informal and formal writing assignments were developed and included in the four core courses (one freshman-sophomore-level, one junior-level and two senior-level courses) required of all merchandising management students. In each course students did in-class ungraded or minimally graded writing assignments. In two of the courses, students wrote formal, graded papers. Students were guided through the formal writing process through guidelines for developing the paper, due dates for paper components throughout the term, and in-class assignments and discussion that provided feedback to students regarding paper components.

Students' evaluations have indicated that the use of in-class writing activities was effective in creating an active classroom learning environment. Faculty have wrestled with difficulties of high enrollments and limited resources in designing and articulating the writing assignments included in the courses. However, in dealing with these constraints, their evaluation of the curriculum changes have also been positive.
A STRATEGY FOR STUDENT INVOLVEMENT IN FACULTY-DIRECTED RESEARCH

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In preparing students to take positions in the apparel and textile field, an important academic program element is enhancing their critical and creative thinking. One objective in this fashion merchandising program is to directly involve selected undergraduate students in the design, implementation and evaluation of faculty-directed data-based research. Through this involvement, students have the opportunity to: 1) integrate critical and creative thinking processes, 2) increase data management and analysis skills, and 3) generate and evaluate new knowledge.

Students enroll in a 1-3 semester unit individual study course after being screened for prerequisites, interest, and research competencies. A written contract specifies the objectives, activities, evaluation criteria, and course registration. Students can participate in one or two on-going projects. From 1-2 to 9-10 students enroll each semester.

Teaching strategies which direct student participation include: 1) weekly seminars, 2) collaborative student and faculty teams, 3) mentoring relationships, and 4) competency building. Student activities include information gathering, instrument development, data collection, and data analysis.

Each student is required to log all hours and describe all research tasks, adhere to scheduled work hours, meet regularly with faculty to review progress, and help maintain a project notebook with comprehensive details on each project component.

In place since 1983, this teaching strategy has been refined as different problems emerged which were related to: 1) student selection processes, and 2) student coordination. Students now sign in and sign off on each completed task. More rigorous screening ensures student interest and competencies. A project notebook organizes each component so all involved know the project’s objectives, research design, and computer program. Student interest and participation continue. Student self-evaluations are positive and address their greater skills to complete the complex tasks associated with research.

STRUCTURING PEER EVALUATIONS FOR UNDERGRADUATE RESEARCH PROJECTS

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Undergraduate students use peer review techniques for papers in introductory English classes but often do not continue the practice for papers written for other classes. Students enrolled in a university designated writing course are required to critique classmates research projects at various stages of development in order to recognize the value of using peer review techniques in the professional world.

The peer review component has been structured to help students secure the opinions of others in project development, develop research skills for their content field, and improve editing and writing skills. Written forms guide the student through the review process for the research proposal, data instrument development, and preliminary paper draft stages. The written guidelines ensure that the evaluator maintains consistency in the peer reviews for each paper subjected to the process.

The use of written forms to guide the peer review process has improved both the quality of the project and the final paper, as well as encouraged students to involve peers in both the editing and concept development stages of papers for other classes. Students have commented on the improvement of their writing skills by avoiding problems they have observed in the papers by their peers.
REPATRIATION AND THE ANALYSIS OF MUSEUM TEXTILE COLLECTIONS

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A significant issue facing American museums with archaeological collections is legislation regarding the reburial and repatriation of Native American cultural remains. The impact of such legislation affects not only current museum holdings but also future research. A law passed by the Nebraska State Legislature is one example of the results of the repatriation issue. Among other things, this law mandates the return of historic Indian burial materials, held in public collections, to the Indians for reburial. As a direct result of this legislation, the Nebraska State Historical Society contracted with a variety of archaeologists and analytical specialists to analyze their Pawnee Indian collections prior to the reinterment of these burial materials.

The textiles among the Pawnee burial artifacts had been recovered from eighteen individual burials at seven sites with occupations dating between 1600 and 1876. The 54 textiles that were analyzed range from indigenous rush matting and textiles made from buffalo hair to silks and metallic trims of European origin. Technical analysis of the textiles includes the identification and description of yarn and fabric structure, scale, edge treatment, patterning, and fiber type. Findings are interpreted in light of archaeological evidence and Pawnee history and ethnology. The preponderance of the textiles recovered were not of Pawnee manufacture. There are examples of European type textile artifacts being used in much their original state and also being incorporated into what would be considered "traditional" Pawnee artifacts.

Although a part of the collections of the Nebraska State Historical Society and State Museum of History since their excavation fifty or more years ago, these textiles had not been analyzed until their reburial was mandated by law. This case of mandated reburial of cultural remains provided the opportunity for analysis of textiles and other historic artifacts used by the Pawnee Indians. Without such an incentive and the state funding provided for analysis, these artifacts may well have remained unanalyzed for another fifty years or more. Thus, textile historians and other researchers interested in material culture studies of historic and prehistoric American Indians should be aware of research opportunities that may be provided by repatriation. The culminating results of such interdisciplinary research efforts should be the integration and publication of the findings of the various specialists. Such coordinated research efforts can lead to the improved understanding of interested groups, including Native Americans, anthropologists, archaeologists, historians, and museum peoples, and can enhance efforts to illuminate the history of the native peoples of America and to protect their future.

MUSEUM EXHIBIT EXPERIENCE - A TOOL FOR TEACHING HISTORIC COSTUME

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Students often complain that the study of history of costume is boring and is not relevant. Permission was obtained for the History of Costume class to develop a historic costume exhibit for a local museum. The purpose of this project was to make the study of historic costume exciting and relevant. Project goals included: development of critical thinking skills, understanding of the ties of current fashion to the past, involvement in a creative learning experience, development of team planning and organization skills, integration of concepts from other courses, and a contribution to the community.

History of Costume is taught on an every other spring semester sequence. This project was first introduced in 1990 and because of its popularity with the students, the museum director and the public, it was repeated in 1992. The theme of the first exhibit was "The Evolution of the Mini-Skirt" and the second exhibit was "Over a Century of Brides".

Display options were evaluated and a theme was selected. Each student wrote a research paper on the selected theme. This information was later used for museum display cards and the exhibit video script.

A student chair was selected. Students worked outside the class in teams on their respective tasks. The display team integrated concepts from visual merchandising and used their creative ingenuity to create attractive displays. The publicity team prepared the museum cards, video script, advertising, and publicity.

Students experienced the commitment and responsibility one has to others when working as a member of a team. The student designed evaluation process allowed each student to evaluate the total project, the performance of others as well as themselves.

The exhibits have had excellent reviews by the museum director, board and the community. The students evaluated this experience as a challenge, as relevant, exciting and a source of great satisfaction.
HISTORIC ARTIFACTS, ON-SITE MUSEUM TRAINING, AND PROFESSIONAL-LEVEL ACTIVITIES: AN HISTORIC COSTUME AND TEXTILE COLLECTIONS MANAGEMENT CLASS

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Since 1988 senior level undergraduate and graduate students in Apparel History, American Studies, Popular Culture and others at Bowling Green State University have shared valuable opportunities in the Historic Costume and Textile Collections Management class. Uniqueness in class structure is a result of the combination of class/laboratory learning with hands-on experience in a local, mid-sized historical society museum set up to represent museums which operate at state and national museum levels. The opportunity to examine fabrics, patterns, periodicals and garments from the past brings history alive for students and inspires them to refine their skills and demand more of themselves. Students develop an interactive working relationship with museum staff and board members.

The course is designed so that each student will be able to: 1) understand the role and responsibilities of a clothing and textile collections curator, 2) understand proper collections management processes and policies, 3) understand accepted conservation guidelines for proper care of valued clothing and textile artifacts and related material culture, 4) understand the business side of collections management, including budgets, valuation, insurance and IRS regulations, and 5) gain an awareness of and experience with numerous public relations responsibilities, including exhibition, display, volunteer management, advertising and related publications and professional organizations. Students are exposed to the exploration/documentation process with actual historic costume, textile and material culture artifacts. Individual characteristics and policies governing two different collections (one at the university and one at the local historical society) brings students experiences in the "real world." Additional museum visitations facilitate discussions and comparisons between museums. Students use museum quality conservation materials and practice conservation/preservation skills in real museum settings.

Since its inception, 73 students over a period of five semesters have benefited from a wide range of projects. Student course evaluations and pre- and post-course surveys are routinely conducted. Perceptions on the role and function of museums and museum personnel are surveyed at both the beginning and conclusion of the course to allow for inspection of changes in attitude and perceptions. Results indicate that students find the course experiences to be both valuable and enjoyable. Pre- and post-survey comparisons indicate that the hands-on experience in real-world museum settings greatly enhances the knowledge, understanding, and perceived value of museums.

MET EXPECTATIONS AND THE RETAIL EXECUTIVE TRAINEE

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Employees bring to the employment situation their own unique expectations of what the job will be like. Thus, the expectations must be substantially met for the employee to feel worthwhile and remain with the organization. No research was identified which examined job characteristics in relation to met expectations. The purpose of this study was to investigate the job dimensions of dealing with others, autonomy, task significance, skill variety, task identity, and feedback of supervisors regarding the degree to which expectations were met.

This was a longitudinal study in which 209 newly hired retail executive trainees, during the first two days of training, reported their initial levels of expectations for each of the six job characteristics. One year later, after socialization and permanent placement, they responded with the actual level of each job characteristic.

The hypothesis was that there would be no difference in the initial expectations and actual levels of job characteristics. Paired sample t-tests were performed for each job dimension comparing means of initial expectations and means of actual experience. In each case, the expected level was higher (significantly) than the actual level of the job characteristic. Some of the most striking results were: 1) The highest mean difference was for feedback from supervisor (FS). Specifically, FS had the next to highest initial mean and the lowest actual mean. 2) Skill Variety had the next to highest mean difference, however, its position relative to other characteristics fell from third position to fifth position. 3) Autonomy, while one of the lower mean differences increased in relative position from fifth to third.
MATURE-FEMALE REASONS FOR PRESENT EMPLOYMENT STATUS IN THE RETAIL DEPARTMENT STORE
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By the year 2000, entry-level workers aged 16 to 34 are projected to decline markedly. Concurrently, the elderly female population will be steadily increasing. Older workers can be a viable substitute for younger employees in entry-level positions.

The purpose of this study was to survey female (ages 50 and older) entry-level department store employees to determine their reasons for remaining a part of the department store workforce. Maslow's (1954) Need Hierarchy served as the conceptual foundation for this study. A response rate of 57% was obtained.

Frequency distributions indicate that the desire to remain active and engaged as a contributing member of the department store [which is similar to Maslow's (1954) Self-Actualization need level] becomes a predominating force. In the retail department store environment, then, entry-level positions should be designed such that they allow the mature female employee to remain active and engaged by providing them with meaningful and challenging work. Doing so would seem to positively impact their employment participation rates and aid retailers in meeting the ominous labor force challenges which lay ahead.

Reference

RETAIL PSYCHOLOGICAL CLIMATE
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Job attitudes are influenced by the organizational climate which includes job and role, leadership, workgroup, and organizational characteristics. The purpose of this study was to determine if the retail organizational structure by management group had an effect on the 13 subscales of psychological climate. The questionnaire was administered in conjunction with a major department store chain and was endorsed by the Human Resource Manager. The stratified sample consisted of 237 personnel who returned useable questionnaires (80% response rate). Management employees were divided into three groups: Store Buying Store Receiving (SBSR), Group Buying Store Receiving (GBSR), and Group Buying Group Receiving (GBGR). These three groups involve differences that distinguish how merchandise is bought and distributed to the stores.

The 111 psychological climate items were grouped into 13 subscales and tested for reliability. ANOVA was used to investigate the effect of the three management groups structure on the 13 subscales of psychological climate.

Results indicated that the degree of structure of the three management groups had a significant effect on six of the 13 psychological climate subscales: Leader Goal Emphasis (p = .0232), Organizational Identification (p = .0070), Role Clarity (p = .0294), Leader Interaction (p = .0198), Leader Trust and Support (p = .0362), and Psychological Influence (p = .0032). SBSR had the highest mean on five of the six subscales followed by GBGR. The retailer's leadership and organizational characteristics influence these two groups (SBSR, GBGR) more than role clarity. Both groups have been employed overall for a shorter length of time than GBSR suggesting that GBSR management knew and understood what their job was and were not as affected by the retailer's leadership and organizational characteristics.

Results can benefit retail management and educators. Retailers can use this information to address the needs of management thus aid in employee satisfaction and retention. Educators who prepare students for the retail industry can use this information in structuring course content to provide a realistic as well as professional perspective.
DESIGNER AND EXECUTIVE DECISION-MAKING FOR READY-TO-WEAR LINE DEVELOPMENT

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Designers working in the ready-to-wear fashion industry are evaluated on their ability to help satisfy company goals for sales and profits. With company goals in mind, designers and company executives select styles that will assure a balanced product line (Glock & Kunz, 1990). The purpose of this project was to provide design students with experience in developing a line. The objectives of the project were to design a line of ready-to-wear and to experience the decision-making tasks of both a designer and an upper level executive.

Students in an advanced fashion design class were divided into small groups. Each student was responsible for developing a line with the assistance of the “company executives” in the group. In addition to acting as the designer for her or his own company, each student performed the role of an executive in each of the other group members’ companies. Development of the line took place over a three week period and included six requirements: 1) definition of the company, 2) fabric selection, 3) researching trends, 4) style development and modification, 5) line merchandising, and 6) visual presentation. Line merchandising was accomplished through “adoption meetings” where designers presented their styles to the company executives who interacted with each other and the designer in order to select styles for a balanced line of clothing that would fulfill the company’s goals. In their role as executives, students were encouraged to reject designs that were not appropriate, to suggest modifications, and to suggest additional designs that would help create a better assortment of styles for the line.

Students felt that the project was extremely successful and appreciated the real-life experience it provided. As designers, students benefited from each others’ constructive criticism as they developed styles. In their role as executives, the students developed an understanding of how merchandising strategies are utilized by clothing manufacturers.


RETAILING IN A RURAL CONTEXT: IMPLICATIONS FOR POLICY DEVELOPMENT

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Rural revitalization initiatives include a variety of efforts intended to assist rural retail entrepreneurs survive in their communities. Unfortunately, many policy makers view rural areas as microcosms of their metropolitan counterparts. As a result, most materials designed to help rural retailers focus on only the internal variables that the owner/manager can control, e.g., vendor selection, physical plant management, dollar planning, promotion, and shoplifting. We contend, however, that an understanding of cultural context of which the rural retailer is a part of the uncontrollable, external variables to which s/he must respond—may result in more useful kinds of assistance. Indeed, although the same basic structures of community life must be managed regardless of community size, size itself contributes a unique character to these structures, one which influences the fundamental character of rurality.

Based on narrative questionnaire data, ethnographic data collected during a year of field work in a community of 600, and experiences as state extension specialist at both the regional and state levels, themes emerged that suggest that rural entrepreneurs are different, at least in degree, from their urban counterparts in the following ways: (a) dependency on a relatively homogenous market with regard to occupation, lifestyle, and social class; (b) a sense of victimization and belief that nothing will help; (c) the belief that flexibility is antithetical to long-term planning; (d) a sense of isolation; (e) a different conception of the meaning of customer service; (f) a personal sense of moral stewardship toward the community.

We suggest that materials/programs designed to assist rural retailers be prepared not from the perspective of the social and political agendas of agencies, but from the perspective of the sometimes antithetical goals and commitments of the rural entrepreneur. Moreover, assistance with assessing the appropriateness of liquidation—of assessing the economic, demographic, and infrastructural bases of their community and region, all of which have a dramatic influence on the odds of long-term survival separate from the relative degree of expertise with which an individual entrepreneur conducts business—may be the only responsible course for agencies that claim to be concerned with rural revitalization.
STORE ATMOSPHERE: ITS INFLUENCE ON CLOTHING PURCHASING BEHAVIOR

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The purpose of this study was to examine whether consumers' attitudes about a store's interior elements were better predictors of emotional responses or more measurable behavior such as spending. A convenience sample of 54 students enrolled at a large southern university was used in a three-factor experimental design. Each subject was randomly assigned to one of eight treatment groups and exposed to a picture of a retail clothing store. The density of the store layout and predominate color scheme depicted in the picture and light intensity under which the picture was viewed was varied using a two by two by two factorial design.

After viewing the store picture, the subjects' emotional responses to the store atmosphere, attitudes toward specific interior elements, intent to shop in the store, and expenditure intentions for five different clothing products were measured.

Results indicated that intent to shop in the store was not dependent on exposure to variations in color, density, or lighting. Also, emotional responses and attitudes toward interior elements were not significant (p's>.05) predictors of clothing expenditure intentions. However, attitudes toward interior elements were predictors of emotional responses, and emotional responses were predictors of intent to shop (p's<.05). Findings suggest that attitudes toward interior elements are related to emotional responses to the store atmosphere. However, they may not influence behaviors such as intent to shop or expenditure intentions.

INTERNATIONALIZING A MERCHANDISING CURRICULUM: COMPARATIVE MODELS

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As the distinction between domestic and international retailing becomes blurred, educators are faced with the task of adding international content to their curricula to better prepare students for careers in an internationally competitive environment. In order for students to survive and thrive in this new environment, they must be prepared for changing retail positions. Cultural awareness, international product sourcing and product development strategies are new considerations for retailing students.

Key factors transforming retailing into an international playing field influence curriculum goals in internationalizing merchandising curricula. Factors such as improved communications, liberalized trade policies and financial systems are discussed. Three models are presented for internationalizing a program (infusion, specialized international courses and international studies specialization). Employing strategic planning methods, a step-by-step approach is presented in a 5-phase process indicating key decision areas and recommendations for overcoming obstacles.

Particular emphasis is given to faculty development in international teaching and research. Discussion is centered around considerations for faculty hiring and re-development, resources incentives, international experiences for faculty, synergy between course content and faculty research, and potential problems and payoffs.
COMPARISON OF EMPLOYED AND UNEMPLOYED MOTHERS’ PURCHASE BEHAVIOR FOR CHILDREN’S WEAR

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The objectives of this study were to determine differences between employed and unemployed mothers with respect to: 1) purchase behavior for children’s wear, and 2) problems encountered during, or after, the purchase of children’s wear.

In June 1991, 131 households (out of 400), randomly selected from a kindergarten enrollment list in Columbia, MO, returned surveys. Employed mothers represented 54.96% of the sample.

The Engel, Blackwell and Miniard (EBM) model of consumer behavior provided the theoretical framework. Chi-square tests, t-tests, factor analysis, and regression analysis were used to analyze the data.

The findings indicated that employed mothers put more priority on easy care than unemployed counterparts; unemployed mothers placed greater emphasis on store service and store reputation. With regard to acquisition sources, employed mothers were significantly more likely to acquire children’s clothing as hand-me-downs. The findings also showed that employed mothers were more likely to buy children’s playwear and dresswear from a mass merchandizer than unemployed mothers. Sizing problems and problems with seams falling apart were the two shopping/apparel problems where differences existed between the two groups. Based on the regression analyses, differences, due to employment status, were found for evaluative factors related to store service and convenience, as well as, apparel problems related to diapers and seams.

ADVERTISING FOR THE ELDERLY RELATIONSHIPS BETWEEN RESPONDENT’S ACTIVITY LEVELS AND THEIR ATTITUDES TOWARD ADVERTISEMENT AND MODEL

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Of significance in the U.S. consumer market is the changing status of senior citizens. This population is larger, better off financially, healthier, and more active than ever before. This segment under representation in apparel ads indicates the potential value in exploring elderly women’s responses to mass communication messages.

According to Festinger’s theory of social comparison and Newcomb’s concept of co-orientation, attitudes toward the models would be expected to vary depending on perceived similarities between models and respondents. These attitudes could influence attitudes toward the ad. It was hypothesized that the activity levels of elderly female consumers would help explain some of the variability in the primary dependent variables, attitudes toward the ad and model. Because activity level represented a covariate, analysis of covariance (ANCOVA) was utilized. Women’s apparel was featured in three advertisements identical except for the age of the models; a young, a middle-aged and an older model were used. Subjects were shown a test advertisement and recorded their impressions of the ad and model. Activity levels were assessed by respondents frequency of participation in various activities.

Examination of the means for the dependent variable, attitudes toward the ad, indicated that the less active elderly women tended to give more favorable evaluations to all ads than the active elderly women. Results of the ANCOVA revealed that model’s age was statistically significant with respect to the ad’s persuasiveness, informativeness, trustworthiness, understandability and objectivity. When the data was analyzed for the covariate the only significant source of variation was in terms of the ads understandability. Examination of the means for the dependent variable, attitudes toward model, revealed the use of middle aged and older models seemed to generate favorable responses from both subsegments of the population. Results of the ANCOVA revealed that model’s age was statistically significant with respect to the model’s persuasiveness, objectivity, knowledge, and overall reaction to the model. In analyzing the covariate significant effect was found only for the overall reaction to the model. Results are analyzed in terms of theoretical implications, practical applications and the ideas they yield for future research.
COMPLAINT BEHAVIOR RELATIVE TO THE PRICE PAID AND THE STORE PATRONIZED

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The steady increase of consumer responses and consumer complaints are now considered indispensable as indicators of unsatisfactory performance of the economic system. Retailers’ and manufacturers’ concern with consumer complaints stem from their desire to better the market and provide good customer service which will encourage loyalty to the store and product.

Retailer’s awareness of customer dissatisfaction is dependent upon the consumer complaining to the store; or that the customer is taking action to inform the retailer of their dissatisfaction. The purposes of this study were to examine complaint alternatives, identify the relationship between consumer complaint behavior, the store patronized and the price of garment purchased. In other words, are consumers taking complaint action and does this action have a relationship to the store patronized or the price paid?

A theoretical framework exists for the study of complaint behavior (disconfirmation of consumer expectations) and studies have explained what behaviors are most likely. However, few studies have applied a theoretical framework which integrates the input components of store and price into the research on complaint behavior. This research was directed specifically toward that goal.

Questionnaires from 479 respondents who purchased garments from either a mass merchant, a department store, a local discounter, or a national discounter were analyzed based on their response to a nine-item complaint activity measure. Actual garments purchased by these respondents were used in the study to obtain results with more generalizable conclusions. Results of frequency tables and mean scores for complaint items indicated that these respondents were likely to engage in both “public” and “private” complaint behavior; and correlations (p < .05) were shown between store, price and the type of complaint behavior.

Each complaint item was also analyzed using a one-way ANOVA. Results indicated complaint behavior differs by individual store versus store type, p < .05. Because of the intense competition that the retailer now faces, it is important to create customer loyalty by encouraging complaint behavior at each store location. It is known that complaints in sufficient numbers can destroy a product and the retailer’s market share, regardless of how long-standing and favorable it has been. Thus, it is recommended that each retail outlet take responsibility for setting policy regarding complaints, regardless of store type.

ONE PIECE APPAREL PROJECT

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Purpose/Objectives: Many apparel design students’ projects are designed to develop skills needed to work in ready-to-wear apparel manufacturing. The constraints of manufacturing costs may limit students’ imaginative impulses in their designing. The purpose of this project was to stimulate the students’ creativity and challenge them in solving design problems. This project was part of a design course for upper level apparel design students. The project objectives were two-fold. First, to design a garment without relying solely on seaming to create shape. And second, add a dimension of creativity to the class and ultimately to the students’ portfolios.

Method: The instructor selected three articles which described designers who use minimum seaming in their designs. After reading these articles, the students were asked to design a garment which had the following characteristics: (1) create a garment that at minimum covered the upper torso, (2) the design could have only one major seam or be made of one continuous piece of fabric, and (3) shape was achieved through fitting devices like darts and tucks.

The project requirements were to (1) create the design by method of choice (draping, drafting, flat pattern), (2) transfer the design to paper (as needed by design method selected), and (3) construct the garment in fashion fabric from the pattern generated.

The students’ design solutions were one or more of the following: (1) darts, (2) tucks, (3) holes, and (4) closures.

Evidence of Effectiveness: Using an evaluation sheet the students and the instructor evaluated the pattern work for accuracy and the design for innovativeness. The overall response to the project was positive. The students indicated the project was a challenge, creative, and their favorite project of the class. The instructor felt the project did produce creativity and innovation in the designs because the students were forced to find alternative ways to create a garment silhouette. This in turn strengthened the scope of student skills represented in their portfolios. The project has been used twice with 19 students and will continue to be a part of the course.
"THE DESIGN PROCESS: INSPIRATION THROUGH GLOBAL AWARENESS"

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Fashion design students enrolled in Textile Design are provided opportunities to develop their sense of global awareness as they create marketable designs for mass production. In 1987, a design project was introduced within a textiles course, which required students to refer to an historic textile as a source of inspiration. With the increased interest in cultural diversity, it became apparent that the project should be expanded to include research of art and artifacts of various cultures prior to initiating the design process. Through readings and visits to museums, students gain an understanding of the cultural identities of others and become more sophisticated, competent designers.

Project specifications fall semester, 1991, had students create marketable designs for the apparel market for fall season, 1992, inspired by a specific culture. They were required to: 1) Visit a minimum of three museums in Washington, D.C. 2) Sketch and document art and artifacts at the museums. 3) Select one culture and research it further. 4) Select a specific market segment. 5) Design a croquis based on market research, the culture selected, and industry specifications. 6) Develop the croquis to create a repeat pattern that adheres to industry specifications. 7) Create several color combinations based on the culture selected and color forecasts for fall, 1992, which apply to the market selected.

The composite project results in a typed, illustrated report and a presentation board that includes the painted textile design in repeat and several color combinations. Students present their research to the class prior to initiating the design process and give final presentations of their completed projects.

The projects are evaluated by the instructor as well as the students. As a follow up, fall semester, 1992, students enrolled in Textile Design analyzed the reports and the textile designs and color combinations produced by this class and determined whether the cultural influences resulted in marketable designs appropriate to the market for fall, 1992.

TEACHING INDUSTRIAL TEXTILES

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Course materials on Industrial Textiles were developed to adapt for use as a short unit in a traditional textiles course or to expand for use in a product development course. The U.S. (Industrial Fabrics) and European (Technical Textiles) markets were studied to develop categories of industrial textiles. The following categories were chosen: Geo-textiles, Architectural Textiles, Mobile Transportation Textiles, Recreational Applications, Industrial Applications, Packaging Textiles, Medical Textiles and Protective Clothing Textiles. For each category market information was collected, slides were selected and examples of typical fabrics for each category were collected. A faculty internship* with the Industrial Fabrics Association International made much of the research and materials collection possible. The course materials were used to teach an industrial textiles unit to clothing design students and industrial design students. A pre-test and post-test was given to determine increase in knowledge. Clothing design students exhibited increased knowledge of a wider variety of materials and industrial design students were more aware of the potential for textile use in industrial design. The major conclusion derived from developing the materials on industrial textiles and teaching a unit on industrial textiles was that educators can easily incorporate a unit on industrial textiles into existing courses and thus expand the knowledge of their students.

*ITAA DuPont Faculty Development Grant
SOUVENIR AUTHENTICITY, TOURISTS' AGE, AND TRAVEL EXPERIENCE

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Tourists often search for opportunities to experience the back stage, authentic life of a community or region. Crafts and other souvenirs serve as tangible evidence of having found the authentic. Textile crafts such as quilts, weavings, needlework, and hand produced fabric products form a substantial portion of tourists' purchases. Research questions included: What characteristics do authentic craft products possess? Do tourists of varying ages, at different stages in their travel careers, and with unique tourism styles construct different definitions of craft authenticity?

The study was naturalistic in approach. We sought to inductively describe craft authenticity as it was grounded in the explanations of 385 tourists who had visited three midwestern states. Answers to an open-ended question on "What makes a craft authentic to you?" were content analyzed with a system developed to fit the data. Intercoder reliability was .85. Data on age and number of states were also collected. Four tourism styles were defined through principal component analysis of 35 travel activities rated for importance when traveling.

The tourists were active creators of meaning for authentic crafts. Definitions of authenticity were linked with characteristics of the products, the producers, and the sellers of the crafts. Salient criteria included color and design, aesthetic details, hand production, originality, uniqueness, geographic exclusivity, cultural and historic integrity, source and type of materials, quality of construction, signature, and shopping experience. As tourists aged and traveled more, their emphasis on uniqueness and originality declined while links to historic and cultural integrity increased in importance for defining authenticity. Differences in definitions for craft authenticity were found among Ethnic, Arts, and People tourists; History and Parks tourists; Urban Entertainment tourists, and Active Outdoor tourists.

SEWING—A HMONG WOMAN'S LIFE HISTORY

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During the tragedies of war and long escape from Laos to the United States via Thai refugee camps, Hmong lost their possessions. Ntxhais Yaaj, the Hmong textile artist who shared her life history with me, lost her village, animals, and many of her Hmong relatives and neighbors she admired. In the midst of all this, however, she stubbornly kept one thing—a Hmong dress she had made. Even the wildness of the Mekong River to Thailand did not prevent her from leaving the dress behind. She may never see Laos again, but she knew that her knowledge and experiences in Laos can live in America in the dress and be passed on to next generations.

Based on the life history narratives collected from a Hmong textile artist, this paper explored the symbolic significance of sewing in the course of a woman's life in Hmong culture. It found Hmong textile, a woman's dress in particular, as personal text that visually records and retells the life of a Hmong woman who sewed it. In dress a Hmong woman sees her female experiences: growing pains of childhood, mixed feelings of fear and excitement in marriage, raising of her own children, and much more. For a Hmong woman, sewing is a way of personally documenting her life and visually passing her knowledge and wisdom on to the next generations. Ntxhais Yaaj found value in keeping the dress even during the war and escape because she saw the history of her own life in it.

Life history as research concept demonstrated how the study of a particular individual can lead to drawing a general picture of Hmong culture¹. In studying the relationship between the person and her culture, the following aspects of culture were examined: 1) environment, 2) social structure, 3) enculturation, 4) economics, 5) biological needs, 6) ritual (religious/secular), and 7) communication. By literally constructing the life history of a Hmong textile artist, the importance of sewing as personal text emerged as a recurring Hmong cultural theme.

Life history as research method facilitated the "person-centered" ethnographic nature of this research. It invited a Hmong textile artist to speak of her own life in her own terms. The primary data were collected via twenty-five hours of in-depth interviews with the Hmong textile artist and my participant-observation in Hmong events and activities during the summer of 1991. Her bilingual children assisted me as interpreters of the Hmong language and culture.

¹ From the personal communication with Anne Sutherland, 1990.
QUALITY OF JOURNALS IN TEXTILES AND APPAREL: ITAA MEMBERS' PERCEPTIONS

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This study was designed to assess ITAA members' awareness of and perceptions of quality of 23 journals in the textiles and apparel field. A total of 230 active members of the association participated in a mail survey.

Section one of the questionnaire included an alphabetical listing of the journals and scales on which respondents rated their perceptions of quality (5=highest) and awareness (3=highest) of the journals. Section two consisted of demographic questions related to professional issues.

Mean scores of quality ratings were used to rank journals. Respondents who indicated they were unaware of a journal or its quality were deleted when determining quality ratings. The Textile Research Journal (M=4.5) had the highest quality rating followed closely by Textile Chemist and Colorist (M=4.3) and Journal of Marketing Research (M=4.3). The Journal of Extension (M=3.0) had the lowest quality rating. The Clothing and Textiles Research Journal had a quality rating of 4.2 and represented the highest awareness among respondents (3.0). Home Economics Research Journal had a quality rating of 4.1 and the second highest awareness rating (2.8).

Results from this study may benefit academic units in identifying and assessing quality of journals where faculty publish. Journal quality may also be an important criterion for individuals when they plan research and dissemination strategies. Studies such as this should be replicated periodically because perceptions of quality may change over time.

CHRYSALIS

Lisa A. Shanley, Auburn University
Auburn, AL 36849

The bridal gown and veil have come to symbolize the transition from one stage of life into another much like the chrysalis represents transition in the life of a beautiful butterfly. The influence of the butterfly can be seen in the off-the-shoulder bias drape and the use of the three graduated bows at the center front, train, and veil headpiece. A silk shantung was chosen for its rich sheen and unusual slubs. The crisp body of the fabric suggested columnar lines which accentuate the figure.

Porcelain white silk shantung was chosen for a gown with an off-the-shoulder bias drape, straight, floor-length skirt, princess seams, and a pointed waistline. The dress is fully lined, includes a hand pricked lapped zipper, back slit for movement, and boning. The 7-foot train is slightly oval shaped with a triple bow, pleats at the waist, and hand-stitched hem. The veil features a triple bow, beaded, and gathered iridescent tulle. Teardrop pears, seed pearls, and rochaille beads were handsewn to accent the bias drape, waistline, hem, and bows.

Drafting was used to create the bodice, skirt, and sleeves. Flat pattern techniques were used to add princess seams, sleeve points, and waistline treatment. The bias tiers were draped on a dress form. All beadwork was done by hand. The zipper was hand pricked and the narrow rolled train hem was hand-stitched. The sleeve hem was faced and features workable buttons and loops. Two small slits were added at the hem at the front princess line to accent shoes and ankles.
OVERSHOT COCOON
Elaine L. Pedersen
Oregon State University
Corvallis, OR 97333

Problem Statement. The purpose of this fiber art piece was to experiment with chenille yarns. After producing samples of several fabric structures an overshot weave was selected. Due to the bulk of the yarns and fabric the design criteria were to produce a garment either with a minimum number of seams or without cutting the fabric into pieces. A cocoon coat fits both criteria. The fabric was designed on graph paper playing with different colors and stripe widths until a pleasing result was produced.

Description. The warp is two ply, red 10/2, 100% cotton yarn, 6 e.p.i. The weft is 100% cotton chenille yarn in rose, rhododendron pink, and black. The weave structure is overshot. A rectangle 33" x 73" was produced, and from this a cocoon coat was constructed.

Technique. A traditional overshot (chenille--pattern weft, 10/2 cotton--tabby) fabric was initially planned. This was not successful. So a nontraditional overshot was made with chenille for both the pattern and the tabby weft. The rectangle of fabric was folded at each end on the diagonal, and the ends were brought up and stitched to one selvedge. For the sleeve opening and hem the corner was folded in and stitched.

SCENIC SHIBORI
by
Carla Jeanne Anderson Perez
Assistant Professor
Fashion Design
The Florida State University
Tallahassee, Florida

This garment was constructed of hand-dyed 100% silk, plain weave fabric. The traditional Japanese stitch-and-dye technique, shibori, was applied to solid peach and grey fabric. Light-reactive peach dye was used on the grey textile while grey dye was applied to the peach silk in order to obtain a converse effect.

Of the myriad of shibori techniques, specific ones were selected for this project: Bomaki, "pole wrap", is achieved by wrapping fabric around a bamboo pole and binding it with twine; Kuna is accomplished by stitching in a circle, drawing in the surrounded area then tightly wrapping the resultant peak with thread—a motif resembling a "little spider" is the outcome.

Modern adaptations of this ancient technique were also incorporated: PVC pipe was substituted for the bamboo pole; contact paper was cut into a scalloped repeat to protect a portion of the sleevethus retaining its original color.

The dyed rectangles were then assembled into a reversible kimono. This garment, not intended as wearing apparel, was then mounted onto a horizontal pole for display.
A RECYCLING PROJECT: SPACES

Beate I. E. Ziegert, Cornell University
Ithaca, New York 14853

The problem to be solved in this ongoing project is to find innovative solutions for the recycling of garments. The inspiration for a Recycling Project is the current international concern with waste materials which are smothering the earth. Apparel pieces can be recycled in various ways. They are either historical documents, change owners, or become waste, although most textiles are biodegradable. I want to find ways and methods to recycle clothing by transforming them into two-dimensional pieces of art and, if possible, retain the character of the apparel piece.

The inspiration for Spaces (80 x 39 cm.) came from two diverse areas. One, this piece was to be conceived flat and at the same time present three-dimensional spaces with line. Two, this piece was to be completely sewn by machine, the most important tool in modern garment construction. The medium of this tapestry is a pure silk, pale-Illece heavy satin from the 1950s which was underlined for this project with pre-washed muslin to stabilize the forty year old fabric. The garment from which the pieces were taken was originally a full length evening coat made by Jean Patou of Paris for the fashion journalist Helen Hessel-Grund. The garment was badly faded and dirty, and did not have a label, both of which made it unsuitable for historic preservation. The whole garment was washed with neutral soap and water before the work began.

The research process continued with the development of the ten perspective images. These images are conceived as academic exercises. There are an infinitive number of ways in which space can be expressed through line. One of the objectives for these ten images was to provide clarity of space in each square. In addition, the placement of the ten images into the whole also influenced the choice of perspective. For example, Cupola, Railway Lines, and Interior have a mass of lines. They were placed in the large piece to create visual movement in Spaces. Read from the left down the ten squares are titled: Two Cubes, Behind a Corner, Cupola, Through a Doorway, Three Buildings, Railway Lines, Between, Three Houses, Walk, and Interior.

The quality and structure of the line was a major concern during the conceptual period of this piece. Due to the intricate seaming arrangement - Spaces is joined in several places to create the single large dimension - the construction of the line took on special significance. To establish color, width of line, and density of the zig-zag stitch, a number of tests were performed. Regular sewing thread was used and each line has a single line machine stitching in black under the grey zig-zag stitching. This was deemed the best solution to hide the seams and give all lines the same size and quality.

A RECYCLING PROJECT: THE SHIRT

Beate I. E. Ziegert, Cornell University
Ithaca, New York, 14853

The problem to be solved in this ongoing project is to find innovative solutions for the recycling of garments. The inspiration for a Recycling Project is the current international concern with waste materials which are smothering the earth. Apparel can be recycled in various ways. They are either historical documents, change owners, or become waste, although most textiles are biodegradable. I want to find ways and methods to recycle clothing by transforming them into two-dimensional pieces of art and, if possible, retain the character of the apparel piece.

The inspiration for the triptych The Shirt was a pure silk man's shirt purchased for $29. in Atlanta, Georgia, in 1981. It was torn at the underarm and was thus not suitable for historic preservation. To achieve my objectives, the shirt was analysed into three major parts which suggested the triptych. Piece one, was developed from the back and the buttons; piece two, with its strong central section was composed with the fronts; and piece three is a composition of all the other shirt pieces: sleeves, collar, yoke, cuffs, and button tabs. To unify the triptych aesthetically all parts are the same color and size (46 x 46 cm.), contain the quilting base of 5 x 5 cm.., use double thread hand catchstitches, and cream silk strips for contrast of color and the use of the buttonholes. The quilting, both hand and machine, either stands on its own or provides the background for other elements in the triptych.

The three pieces are made of a medium-blue, washable pure-silk fabric with the addition of small amounts of off-white pure-silk fabric. The basic construction consists of machine and hand quilting done over a cotton or polyester batten, the 5 x 5 cm. quilting unit, and blue and white 1 cm. wide strips which are machine edgestitched with blue thread and attached with a blue double-thread hand catchstitch. The three piece unit has two asymmetric pieces and a symmetrical central section. This is divided into two and three fields on either side of the vertical strip in the middle. Except for one, each of these fields is machine quilted with a different pattern. The spiral motive is quilted by hand. The appliqued off-white strips provide the triptych composition with images of: power and aggression with the diagonal orientation in piece one; connection, calm, and continuity in piece two; and a shimmering water landscape in piece three.

The concept of this triptych was to utilize all shirt pieces making the original character of the garment visible. I believe the solution is successful because: the triptych is an uncommon form for tapestries, the common shirt takes on new aesthetic and iconographic elements, and a variety of apparel construction techniques are used to give the piece a new meaning.
PRAIRIE POINTS AND TUCKS

Nancy Lyons, South Dakota State University, Brookings, SD, 57007-0496

Design inspiration came from a plain surfaced, solid colored fabric, which had the potential to be worked into many techniques. Design objectives were to create texture and line via surface design techniques, and to create a dress for the professional woman that is timeless, elegant, and appropriate for day and evening settings. Experiments with piping, bound edges, bias scrollwork and prairie points were carried out. Sample yardages were produced featuring tucks of varied widths and spacing. Blind tucks and pin tucks were tried before spaced tucks were chosen.

The garment is made of a blue linen-like rayon. The slightly wedge-shaped chemise features a front placket closure edged on one side with prairie points. Prairie points also edge the shoulder yoke seamlines. The neckline is jewel; the dolman sleeves are cap length and supported by raglan shoulder pads. Horizontal tucks create the fabric for the major front and back piece of the dress.

Flat pattern techniques created the basic structure of the dress. Fit and scale of details were refined in muslin on a dress form. Fabric was thread traced along the crosswise grain at two inch intervals. Quarter inch tucks were sewn using a quilter's foot. Pattern pieces were cut from this tucked yardage. Hand sewing initially positioned the prairie points and aided in matching tucks at the seamlines. The dress was machine sewn and seams were finished by serging. The dress was completed on May 19, 1992.

KENTE KATELYN

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Blacksburg, VA 24061-0410
Joann F. Boles, Virginia Tech
Blacksburg, VA 24061-0410

The purpose of this project was to develop a garment for a female that incorporates the African kente cloth and to create an African American porcelain miniature manikin on which to display the design. The design was inspired by the beauty of the cloth itself and the lack of availability of women's apparel which incorporates kente cloth.

Kente cloth originated in West Africa as strips of fabric handwoven on narrow looms. This process resulted in a fine cloth containing geometric designs which represent folk psychology of the people indigenous to the region.¹

The research process for "Kente Katelyn" included a search for non-masculine sources of the cloth in Atlanta and Washington, D.C., the creation of the design idea, the creation of the miniature manikin in a configuration to enhance the garment, experimentation with handling the cloth, and draping the prototype. The original 4" wide kente strip cloth forms the center of the poncho-type overgarment. On each side of the center, the cloth was cut to form a graduated design using the blocks in the kente cloth. The hem, which also reflected the graduated design, was fringed with embroidery floss. The undergarment is a draped one-piece, long sleeved, ankle-length catsuit of nylon and spandex knit.

The design ensemble was completed May 10, 1992.

WHERE DID ALL THE FLOWERS GO?
Patricia A. Kimle
Iowa State University, Ames, IA 50011

"Where did all the flowers go?" explores the use of plaiting for creating garment forms. Color, pattern and texture were explored through the use of printed commercial textiles, slashed and re-woven to shatter the original surface design and create new patterns. This work was inspired by baskets by Ed Rossbach using printed fabrics as weaving elements to create surface interest. I experimented with many types of fabric prints, including various print scales, backgrounds, colors and patterns, to determine the visual effects created by slashing and weaving the patterns with themselves and other fabrics. Mixing print and solid fabrics had the most dramatic effect of shattering the original print and bringing the woven structure to prominence in the pieces.

1 X 1 bias plaiting of half-inch strips is used to create simple, geometric forms. The hat is made of printed florals in two color schemes and white fabric. The vest also integrates solid colors taken from the two florals to strengthen the geometric grid and provide some relief to the textural areas created where the prints intersect each other. The colors used include burgundy, navy, medium blue, light blue, periwinkle blue, forest green and white. The solid color scheme was developed from the original floral prints to integrate the two colorways. The hat has small bits of stainless steel woven into the sides to imitate "shisha" or mirrorwork and add a bit of sparkle.

The fabrics were bonded to a backing fabric with a iron-on bonding agent before cutting into strips in order to give them greater body and dimensional stability to create a stiffer form and to control fraying. The woven structures are finished with sewing, permanent bonding agents, and glue. (They are not washable or cleanable.) The vest is lined with a complementary fabric and the hat is partially lined. All fabrics are plain-weave cotton and cotton/poly blends.

REVISITING THE PAST
Lynn M. Boorady
Susan P. Ashdown
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Ithaca, NY 14853

This design is from a set of six reproduction 1860's outfits designed to teach children age 5 to 8 about how children lived in the past. Each outfit is a complete set of garments including underwear and outerwear of the period. These garments and other items representative of the 1860's are part of a traveling trunk used by elementary schools in Chautauqua County, New York.

This outfit is a reproduction of the type of clothing an upper class girl of the 1860's would have worn. The inspiration was from fashion illustrations and actual garments of the period, and patterns from texts on historical costume. Design goals were to choose tailoring and fitting techniques, fabric properties, and design details that would reproduce differences in the fit of this outfit and movement restrictions compared with current children's fashion.

The outfit consists of cotton pantalettes, a fully boned corset, a wire "cage" crinoline, two petticoats, and a two-piece dress trimmed with pleated brocade and braid.

Through wearing this garment children will have a better understanding of another time, and the effect of clothing on the relationships between people and the space they occupy. They also experience a different kinesthetic reaction to the world. For example, the donning process of these garments requires assistance and this lack of independence is noticed by children who are so proud of being able to dress themselves in their own clothing.

This set of garments has been tested in a classroom setting. The children were enthusiastic, and their comments indicated that the design goals of the project were met.
Clothing for a special purpose or function can increase an individual's independence. The design process for this project began with a request for clothing to meet the needs of an individual with physically limiting abilities. My goal as a designer was to bridge the gap between my client's abilities and her desire to continue dressing herself.

The specific purpose of this design was to create a fashionable pair of mittens which could be easily donned and doffed by an individual with limited strength and physical mobility in her hands and fingers. The desire for an individual to remain independent can be severely reduced if gloves can not be donned in a cold climate.

The unique feature of the mittens is an opening along the outer edge. To don the mittens the wearer places them palm up on a firm surface or counter. One hand is slid into a mitten, then hand and wrist are rotated until the velcro is securely closed. This procedure is then repeated for the remaining hand. To doff the mittens, fingers are placed through a loop and pulled easily separating the velcro. This method donning and doffing does not require finger manipulation and grasping motion necessary to "pull on" and "pull off" conventional mittens.

The mittens are made of 100% nylon, lined with 100% cotton. Thermore batting provides warmth and comfort without adding additional bulk. This project was completed on March 25, 1992.
HOT LOOK

Cecile Alegre, San Francisco State University, San Francisco, CA, 94132

This design is intended to create the modern or futuristic look. Because of the uniqueness of this design, it caters to a selective group of people who want high fashion. This is perfectly designed to look good with or without the jacket, and made so that it can be worn for a special day events as well as a special evening events.

The method used to create this design is draping. A sample fabric was draped on the model and carefully marked on the fabric. Next, it was transferred to paper before being transferred to fashion fabric. Perfect fit is one of the important factors in this design and that is why accuracy in marking and cutting the fabric and paper is necessary. The asymmetric one-sleeve lined jacket was designed for a more updated look.

PERFECT EVENING LOOK

Cecile Alegre, San Francisco State University, San Francisco, CA, 94132

I wanted to stay away from a traditional black evening dress therefore I created a design that will be eye catching using a combination of color and design. The colors are carefully selected, and the see through stiff jacket over the soft fluid dress is purposely selected to create a dramatic look for a special evening events. This designed outfit is for a client who is not shy and who wants to be easily seen and distinguished in big crowded rooms.

The method used to create this design is a combination of the flat pattern and draping methods. A bustier was first made to fit perfectly on the model. Next, it was put on the model before the sample fabric was draped and marked. It was important to make the lining the same color as the shell to create an opaque look which would be contrasting with the see through jacket. The fully lined dress has no side seams and this was only possible by connecting three pieces of fabrics and then purposely making folds on the seams so that they were not visible. The jacket is an important element in this design completing the perfect evening look. The big exaggerated lapels were selected to accentuate the face of the wearer.
After establishing that Madeleine Vionnet was the "extraordinaire" of structural bias design, various fabrics and degrees of bias for each pattern piece were attempted. Both flat pattern and draping techniques were used to create the skirt panels which transverse the distance from the center back waterfall hemline across the center front then returning to center back hemline.

Vionnet's innovations of using both crossgrain and lengthgrain pieces sewn to fall in a bias flow were executed for this design. The concept of adapting the fit of each individual garment by small darts, tucks and short seams was also implemented when completing the 100% polyester jacquard dinner dress. The waterfall hemline is characteristic of Vionnet's freedom to let the fabric determine the hemline.


The country-western flavor plus the red rocks and soil of Southern Utah were the inspiration for "Canyon Country". It is a cordovan brown, Ultra Leather pants suit. The country western flavor was achieved by the use of leather-look fabric, the geometric design of the seams, pockets, bound button holes and top stitching.

Harness rings were used as closures. Matching double welt pockets are found on both the pants and the jacket.

Because Ultra Leather resists pressing, gluing and top-stitching were the main structural techniques. Mitered corners are a special design feature.

This ensemble does not wrinkle, is comfortable, washable and has the perfect western styling for any casual occasion.
SAUTERNE CLUSTERS
M. Jo Kallal, University of Delaware
Newark, DE, 19716

Problem Statement. The design problem was to create a garment from whole fabric pieces. Other goals were to: a) explore techniques for fitting three-dimensional contours, b) experiment with complementary colors, c) take advantage of intrinsic fabric characteristics, and d) design for a contemporary, designer market.

Description. The draped, two-piece evening dress is designed for resort dressing. Linked through the front waistline, an aubergine (R-P) silk chiffon tube self-wraps the upper torso. Sauterne (Y-G) silk twill is draped in a modified sarong style skirt. Styling/fit are controlled by wrapping and tying "clusters" of fabric with rayon yarns. The clusters simulate soft, abstract floral groups.

Techniques and Media Employed. The design was draped in the fabrics using three-yard cuts of each. Fabric drape, techniques for controlling shape/fit, and proportions were tested and assessed. Structure is derived from draping and wrapping. The skirt piece was trimmed diagonally to eliminate excess bulk. A rayon braid waist stay forms the understructure. High quality machining techniques for lightweight fabrics anticipate commercial production requirements.

LAWN AND LACE NIGHTGOWN

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Lucretia Meier
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The "Lawn and Lace Nightgown" was designed to solve two important problems facing consumers and manufacturers: the need for a garment which enables pregnant women to look and feel attractive, romantic, and feminine and yet can be easily constructed by manufacturing methods.

The garment is made of 100% cotton lawn and rayon lace trim. These fabrics make the garment soft, comfortable, and luxurious. The target customer is the affluent, professional child-bearing woman who likes classic styles, classic comfort yet desires to maintain a romantic, sexy married life.

The jacket and nightgown were designed to enable the wearer added modesty protection and to give added warmth if necessary. The gown and jacket have ample kick room (120 inches) for both the wearer and the forthcoming child. In addition, nursing slots are built into the front vertical lace panel on the nightgown.

The jacket and gown have limited seams, use lace as a mechanism for trimming and finishing, use a five-stitch serged seam for durability and rapid construction, have narrow hems, and use elastic at the sleeve edges. The jacket has a cuff with button and a hidden placket in the center front.

The two garments were designed to target the nightgown collection of Eileen West's designer market.
RAIN COLOR

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Blacksburg, VA 24061-0410
Karen Watson, Virginia Tech
Blacksburg, VA 24061-0410

This raincoat was developed to be worn by the Department Head of Human Resources at the University of Hawaii, while riding her moped. Thus, the inspiration came as an invitation borne of friendship, a need, and encouragement. In addition, the availability of microporous fabric in incredible colors and the addition of a partner to share the adventure added resource to inspiration.

The process of development took 5 years. Initially there was talk with the wearer about the activity and the environment. A sketch was prepared with fabric samples for the wearers’ critique. The designer than had the opportunity to experience the environment and the activity. Changes were made in the original sketch. A pattern was made and the raincoat assembled. The designers used a fitters’ model to critique their own design. The raincoat was shipped off to Hawaii for a six week wear testing in the convenience of daily downpours. Suggestions from the wearer and the designers were incorporated into the pattern, the fabric, and the assembly.

The raincoat is a kimono sleeve graphic design inspired by the 60’s in a primary red, yellow, and blue fabric of nylon and microporous film in Ultrux by Burlington. Ventilation was provided by temporary fasteners at the bottom and side intersection of the upper body portion of the coat, as well as with a mesh lining.

Because rainbows abound in Hawaii, the design name was conceived as Rain Color.

RED SNAPPER

Shu-Hwa Lin, Auburn University, Auburn, AL 36849

Problem Statement:
The idea was to simulate the mystical and glamorous image of the mermaid. Curved tucks were designed to simulate the scales forming the body of the garment. These tucks also provided shaping. A ruffle of inverted pleats was used to represent the flare of the tail.

Description:
The strapless dress features a flounced flare ruffle at the bottom with center back zipper, a bodice of curved tucks in the front, and straight tucks in the back. This dress was made from red, 100% cotton, and circular single knit.

Construction techniques:
The scales were developed with curved seams, curved tucks in the front and straight tucks in the back. The tucks were stabilized with an underlining of nonwoven interfacing. The overall vertical line was reinforced with boning in the side seams.

Techniques and media employed:
Draping for body of garment and flat pattern for ruffle were used. Project was completed May 12, 1992
ACTIVEWEAR JACKET

Janet Hethorn, University of California Davis

Activewear jacket was designed to meet the needs of people who participate in active sports and want a transitional jacket; one that can be worn for some sports activities, and as a casual jacket while not participating. Through recent interviews with active sports participants (skiers and windsurfers) it was found that there is a need for jackets with performance possibilities that could also be worn "on the street". Many agreed that the high-tech jackets currently on the market are so specific to activities that they cannot be worn for general use. "Activewear Jacket" was designed to function as a versatile addition to the active person's wardrobe, and at the same time represent the current aesthetic of this market segment.

In order to assess the visual aesthetic needs of active sports participants, many observations and interviews were conducted. Recently, I conducted a study which included observations of 8,000 skiers and interviews with 150. Also, I have surveyed magazines and marketplaces which cater to active sports participants such as windsurfers, bikers, hikers, climbers and runners, in order to assess the visual components currently available. In the process of conducting these observations and surveys, I have developed a format for visual assessment and description which has been used as a basis to direct the visual design development of this jacket. The selection of fabric, color and form are consistent with the threads noted in this study and assessment.

Developing the functional features was focused on providing a lightweight yet strong jacket for protection from the elements while allowing for freedom of movement. The selection of sleeve type (saddle sleeve) was to facilitate movement and still provide shaping under the arm. There are three zippered pockets. These were designed to provide security for items placed in them so they wouldn't be lost during activities. The elastic at the bottom edge and snug knit collar keep from wind entering these areas. Using supplex as a fabric choice solves the lightweight and strength issue. A YKK zipper was used for durability. Both aesthetic and functional needs were addressed.

MEN'S INDOOR EXERCISEWEAR

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Carolyn Moore, Virginia Tech
Blacksburg, VA 24061-0410

The men's indoor exercisewear was developed as a prototype project for a major direct mail marketer. The primary male customer was 35-55 years old. The inspiration for the design came from the physical fitness phenomena encouraged by the increase in corporate, public, and private facilities, as well as, a need to demonstrate the development of garments through experimental research.

The process of development took three years. Major areas of assessment were historic exercisewear for men, maximum movement in all covered joints, wearer preference, supervisor interviews, fabric testing, and evaluation of existing garments. Assessment spawned design criteria which were translated to specifications and ultimately to prototypes. The prototypes were evaluated based on the development assessments.

The prototype with the most positive results was in three parts. 1) A T-shirt with mesh center front and back panels, underarm gusset panels, overarm matching panels, angular tennis bottom and lowered neckline. 2) A pair of leggings with inseam gusset panel and outer leg matching panel with wide front and back leg panels. 3) A pair of shorts with mesh center front and back and an inseam gusset panel and a matching outer leg panel. All fabrics were part spandex.
"Photo Kimono" is one of several pieces in a series which explores traditional crafts and structures. The artist has been experimenting with chemical methods for preserving photographs on fabric for several years. The concept is taken from a nineteenth century photographic theory which utilizes ferric ammonium cyanide to photosensitize fabrics. Other chemicals were used which gave a rich brown color, but they proved to much more fugitive than the "indigo" blue color achieved in this jacket.

The photosensitized then printed fabric squares were made into a quilted kimono jacket (a traditional structure) allowing full display of the beauty of the individual photographs, thus preserving the integrity of the old glass negatives. The kimono structure was selected since there is very little cutting of the fabric pieces. Another traditional craft, quilting, was utilized as a finish. The heavy quilted construction added structure to the photographs' rectangles and the quilted outlines emphasized the pictures.

A black cotton/lycra catsuit was selected to wear with the jacket. It partially covers the face so that the viewer's attention is focused on the jacket.

The purpose of this project was 1) to design a coat capable of being translated into an aesthetically pleasing landscape painting, and 2) to compose a landscape capable of being developed into a wearable garment.

Inspiration for this piece was drawn from the idria forests in the Vizcaíno Desert of Baja, California. Idria are branchless columnar trees found in the northern part of the Baja peninsula. This particular desert landscape was selected after researching various types of desert conditions found in North America. Additional research included fabric sourcing to find a fabric that was appropriate for the painting as well as the garment.

Los Círios de Baja is a knee-length swing coat made of hand-woven cotton ottoman. The garment serves as a "canvas" for a panoramic landscape of the Vizcaíno Desert in spring. The desert palette consists of blues, greyed-greens and browns, accented by bright reds, pinks and yellows. Undulating seams and scalloped edges define mountains, clouds and plants painted on the coat. The lining is hand-painted with skulls, using fabric paint, and quilted in a skull pattern. The closure is formed from bones, braided leather cord and a skull.

A desert scene was sketched with marker on a muslin prototype to determine seam lines, pockets and fronts. Thirty-two pattern pieces were developed from this drawing using draping and flat pattern methods. The final garment was basted together and the landscape was painted with procion dyes using air brush and hand painting techniques. The coat was disassembled for dye fixation. The garment was reassembled, lined and the closure was attached.
Initial inspiration for the piece came during the 1991 ITAA meeting when the designers observed Chinese jade and celadon artifacts at a specialty retailer in San Francisco. Subsequent research focused on Chinese art, costume and dragons.

The challenge for the piece was successful execution of a dress and headdress design using non-traditional materials and a folkloric theme.

Yi Long is a long dress made from 7 mil green polyisoprene. Tricot backs the center front panel (belly). The remaining polyisoprene backed panels are made of arithmetically graded scales, increasing in length from the neckline to the tip of the two foot train (tail). The center back opening is secured by 8 Chinese ball buttons and loops of self material. The 2 inch standing collar has scales cascading across the yolk. The headdress is constructed of black and green polyisoprene, balsa wood, millinery wire and beads. The black polyisoprene was braided over the wire to resemble hair.

The dress was constructed using a zipper foot or roller foot. The polyisoprene was powdered so pressure foot movement remained smooth. Buttons and button loops were braided, then tied. Dragon scales were cut into 33 different shapes with 1/4" differential between size designations. Scales were applied vertically on the dress, one inch apart. Facings and seam allowances were glued into place. Techniques used in the headdress were braiding, painting, gluing, beading, wrapping and wiring.
CELEBRATION COAT XXI

Robert Hillestad, University of Nebraska
Lincoln, NE, 68583-0802

The garment structure for this design is 100% linen in a basket weave created through the traditional method of garment construction; the surface design was created by the resist method of dyeing as well as direct application of pigments. The collar was hand knitted with a fringe technique of yarns, tapes and tubing of assorted fiber content.

CELEBRATION CAPE IX

Robert Hillestad, University of Nebraska
Lincoln, Nebraska 68583-0802

"Celebration Cape IX" is from a series titled "The Rite of Spring in Fiber," inspired by seasonal changes which accompany the arrival of spring. The garment structure with rich tactile qualities was created by hand knitting with a fringe technique. Tapes and yarns of rayon and cotton were combined with raffia in a wide range of greens to produce an impressionistic color effect. The collar of woolen yarns, rayon tapes and other fibrous materials, was hand knitted with the same technique. Hand knitted "fiber berries" brushed with fiber reactive dyes were interspersed with the dense pile. In developing the design, special attention was given to the effects of light and motion when displayed on the human form.
BLACK AND WHITE

Edmund S. Harrison, Virginia Tech
Blacksburg, VA 24061-0410
Joann F. Boles, Virginia Tech
Blacksburg, VA 24061-0410

L.A. STYLE

Belinda T. Orzada
Florida State University
Tallahassee, FL 32306

The black and white design evolved from the active nature of the target market (college educated, working female, ages 22-45 years old), and from a desire to explore the drape of spandex knit on the human figure. The designer considered comfort, versatility, and ease of care when developing the design.

The peplum of the top was designed to cover hip and buttocks problems. Coverage and fit was achieved by three pleats on each side in the front and back, a shaped bottom edge, and side slits in the peplum. Comfort was facilitated through a sleeveless structure, loose styling, and the use of breathable fiber and fabric. The top was constructed of white rayon/cotton bengaline and white cotton/polyester jacquard shirting with black topstitched rayon tape. Two main body fabrics lend a subtle versatility to the reversible top.

The leggings feature a partial foot designed to eliminate twisting or rising of the hem, as well as the elimination of the need for socks or hose. The leggings were constructed of a black moroccan print on heavy weight white cotton/spandex jersey, broken only by a few seams. The seams were serged, while the elastic of the waist, heel, and toe loop were sewn with a stretch stitch.

My search for the perfect fabric to construct a New Year’s Eve formal literally extended across the United States. A trip to visit a friend in Los Angeles proved to be the gold mine: I found this uniquely printed clipped-spot organza there. The fabric itself provided my design inspiration for the dress I call "L.A. Style". For the exquisite organza to be fully appreciated, I chose to design a garment with both sheer and contrasting areas. I felt the best way to accomplish this was to use a two-piece design.

"L.A. Style" consists of a 100% polyester clipped-spot organza overdress and a 100% silk satin charmeuse underdress. The organza’s sheer black background is highlighted by a small floral print in royal blue, turquoise, fuchsia, purple, brown, and gold; the clipped-spot provides a stem-and-leaf effect in the same colors.

Both pieces are princess line, thigh-length dresses designed in the fit-and-flare style. The overdress has double ruffles at its deep-V, double-breasted bodice and long sleeves with double ruffles at the wrists to complement the silhouette. Black satin charmeuse was chosen for the strapless underdress which has a sweetheart neckline.

The two-piece formal ensemble was designed using flat pattern techniques. Construction techniques employed on the overdress include: French seams and bias organza binding as facings at the neckline and cuffs. The underdress is fully lined with silk organza.
DRESS PARADE

Kimberly D. Belt, West Virginia University, Morgantown, WV 26506
Nora M. MacDonald, West Virginia University, Morgantown, WV 26506

This project was initiated as an assignment in a Flat Pattern class conducted by the co-author. The problem was to design a dress using an historical costume design as the source of inspiration. An 1818 French Restoration tail coat was the design inspiration selected. The hemline of the coat was translated into the style lines of the dress while the color choice was influenced by the red and black uniforms worn by British military personnel.

The contemporary dress was constructed of 100% wool crepe with a cotton batiste underlining. All seams and the hem were finished using the Hong Kong technique and a hand picked zipper was applied for a couture look. The standing collar and wristlines were adorned with black and gold trim to enhance the military theme. Gold military buttons were placed along the curved front style lines leading to a tail-like effect at the back. The unique style lines were further accentuated by the red and black color contrast. This design was executed using the flat pattern method of pattern development. A muslin toile was constructed and used for refining style line placement and determining proper fit. Adjustments were made as necessary.

RHAPSODY IN BLUE

Dianne Atkinson
Mount Mary College
Milwaukee, Wisconsin

The goal of this design was to create a sweater ensemble that was comfortable yet elegant for the woman over 40. Becoming lines that are slimming and camouflage challenge areas are a priority for this market. Initial research concentrated on sweater silhouettes that fit this criteria.

To solve the challenge of the dolman sleeve design and the limited carriage length of the knitting machine, the sweater front and back, were knit in a crosswise direction. A scallop lace edge punch card was used and the lace was attached to the sweater. Morning glory blue yarn of 80% wool and 20% rayon was used.

Since the pattern in the sweater was monochromatic, I felt I could introduce additional color in the skirt. The brilliance of a blue, fuchsia, red-orange, and teal jacquard floral polyester sheer elevates the ensemble into the evening category. The dropped yoke styling with a full circle skirt is fully underlined and enhances the feminine sophistication of the ensemble.
GEOMETRICS
Peggy C. Mead and
Nancy O. Bryant
Oregon State University
Corvallis, Oregon, 97331-5101

This two-piece, blue silk outfit uses simple structural design lines that compliment the embellishment of the jacket.

For many years, I have been intrigued by the textiles of Africa. The appliques on the jacket were inspired by the Bakuba raffia appliqued textiles of Africa. The bright colors and geometric shapes are also reminiscent of some African designs.

The jacket body is made of blue raw silk. The back and sides of the jacket have been embellished with appliques and stitching. The textured blue shantung silk on top of the blue raw silk lays the groundwork for the embellishments in a variation of the Bakuba appliqued textiles. Solid red, yellow, green, blue, and black and white spotted silk in geometric shapes in various textures have been appliqued on top of the first appliques. Mauve metallic thread has been randomly stitched over the appliques. Yellow cotton sheeting fabric lines the jacket and is exposed on the asymmetric right front opening.

Black and white piping follows the design lines of the jacket and a black and white spotted fabric trims the edges. A few glass beads have been added for sparkle.

The simple tank dress has been constructed in a blue, stripe textured shantung silk to coordinate with the jacket appliques of the same fabric.

SEQUIN SALUTE
Shannon Hampton and
Nancy O. Bryant
Oregon State University
Corvallis, Oregon, 97331-5101

This gold spangled suit was inspired by the clean lines and authoritative distinction of historic military uniforms.

There is something about a uniform that imparts respect. I brought this out in the broad exaggerated shoulders with the epaulet embellishment. The jacket trimming highlights the design features. The flared back panel is trimmed with ribbon and the gold piping accents the princess seams.

The jacket and skirt are made out of black light weight denim twill. The jacket has a jewel neckline and two patch pockets that are trimmed in gold sequins and soutache braid to give the illusion of a flap. The buttons march eight in line down the front, two at the back panel intersections, and three on each side vent. The sleeves have very large pleats in the shoulders to provide a support for the epaulets. Hand beaded fringe swings from the sides of the epaulets. Black and gold ribbon is applied over the shoulder seam, continuing across the epaulets.

The slim very short skirt barely shows below the jacket except at the slightly cutaway front opening edge. The skirt fitting is incorporated into two gore seam lines in front.

The ensemble appears as a formal dress suit that can be worn on the town without taking fashion too seriously.
SPASH OF ROSES

Nancy Wade and Gail Goodyear
California State University
Chico, CA 95929-0310

The goal was to design a garment for evening when a dress was not requisite. A jumpsuit made of unique fabrics and embellished with ornamentation achieved the elegance and sophistication associated with eveningwear. The subtle beauty and colors of nature were desired—a jacquard pattern of roses in mauve, khaki, and cream comprised the focal fabric.

Fabrics and findings used to create the jumpsuit were linen jacquard, cotton baby gabardine, pearl beads, braid, and soutache. Two different types of trim were used to accent the garment style and to compliment the intricate jacquard weave.

The waistline was given a fitted appearance by shirring the back panel with elastic thread. Netting was used to line the pockets to avoid noticeable pocket lines typical of light colored fabrics. Interfacing was used in the yoke panels at the waistline in order to stabilize the fabric. Flat pattern techniques were utilized to make the pattern and the garment was completed December 3, 1991.

MISTLETOE AND ROSES

Nancy Wade, CA State University, Chico
Chico, California 95929
Gwen Sheldon, CA State University, Chico
Chico, California 95929

To celebrate the holiday season, a non-traditional evening outfit was desired. The desire was for something slightly tailored with soft lines for feminine tailoring. A soft fabric which would mold into a soft styled jacket and pant was selected in colors related to the season, green and cranberry. Tailored men's wear inspired the jacket feminized by an asymmetrical closure, a fitted waist, hand beading and gold buttons. The pants complement the fitted style by being slightly fuller at the hips and narrowing at the hem. The pants are unusual in that they don't have a side seam, only a dart extending below the pocket.

Drafting and flat pattern techniques were used to create this original design. The fabrics used were linen jacquard and rayon. Ornamentation on the outfit consists of hand beading across the front of the asymmetrical jacket closure.

The striking look achieved by Edith Head when she utilized black in her apparel designs inspired the creation of this halter dress. Further inspiration was received from the graceful drape of garments worn in the 30's and from the halter dresses worn in the 60's. It was the intent of the designer to utilize the design elements to simplistically achieve elegance. The black color of the fabric and the use of few design lines subtly reinforces the emphasis of the design.

The dress is gathered at the center back of the halter neckline to release fullness over the bust. The soft drape of cotton, interlock knit compliments the gently curving design lines. The fully-lined bodice and the free flowing skirt were constructed using a straight stitch. The garment construction is as simplistic as the design—the level of construction was suitable for this first time designer and seamstress.

The fitted bodice is sewn to a skirt which has the bias at the side seams. The garment is entered by expanding a strip of self-enclosed elastic. The bodice is secured with a square knot in the wide ties attached to the bodice front. The garment was completed May 1, 1992.

Inspiration for this design came from an old Katherine Hepburn movie. I tried to reflect the elegant pant suits worn during the 1940’s.

The jacket is collarless, with a V-neck line, buttoning once at the waist. There are gathers radiating up from the waist line to create a fuller top. A fitted peplum has been added at the waistline, with a front opening mirroring the neckline of the top half. The jacket has set in sleeves and is fully lined. The pants are trouser cut, with a wide leg, pleats, and a wide waistband which buttons on the sides, forming pockets. Fabric for the pants and jacket are a purple rayon/polyester blend baby gabardine; the lining is purple polyester lining fabric.

The buttons are painted to look like antiqued metal buttons. The design was developed through the flat pattern method of apparel design.

Completed in December, 1991.
WOVEN ELEGANCE

Teresa Gerhards, CA State University
Chico, California 95929
Gwen Sheldon CA State University, Chico
Chico, California 95929

Seventeenth century slashing inspired this design. In the 1600's, slashing was used on various parts of garments, but especially on the sleeves, revealing whatever was underneath. I wanted to capture the same effect, but with construction that was finished and would give the look of elegance. The result was lattice work detail for a couture finish.

The bodice has double released darts in the front and back; the released darts in the front are larger to create a fuller bustline and extend down to slim the waist and hips. The double breasted blouse has large faux gold, pearl buttons, puffed sleeves and portrait collar. A soft rayon jacquard was used for the main fabric with a polyester lining. The sleeves are lined with a stiff nylon organza for support and fullness to the puff sleeves.

Pattern making was done by the flat pattern method. The sleeves were made by cutting and sewing fabric strips, then weaving them into a lattice and molded into the puffed shape.

Completed in May, 1992

EUROSCULPT

Michelle Wahlen, Mount Mary College
Milwaukee, WI 53222

Following the lead of directional European Designers, this full length wrap coat in a black wool fleece was the end result of a tailoring course I took in the fall of 1991.

The pattern was draped in muslin, followed by fittings until the desired silhouette and proportions were achieved. The symmetry of the collar is the focal point while the subtle shaping of the side seams creates rhythm through the design. Construction incorporated fusible tailoring methods. Thinsulate interlining provides warmth. The black jacquard lining was inserted by hand for a professional fit and finish. It is worn with a 3" wide leather belt at the waist and a paisley stretch hood which I specifically designed for the coat.

This garment is indicative of my minimalist design philosophy, emphasizing fashion as a functional art form through the creative manipulation of line and proportion.
CULTURAL VOYAGE

Yueh Yuan Chou,
Gwen Sheldon,
CA State University, Chico
Chico, California 95929

The inter-national community often requires apparel that depicts a multicultural appearance. This design is a study of Western and Asian fashion. The design was inspired by the Chinese costume, Chi-pao, combined with the long train of Western costume to heighten the frame. The design emphasizes the Chinese costume features of a fitted silhouette and rich fabric embellished with sophisticated embroidery details. Black velvet, decorated with rich embroidery, is used to portray a mysterious and graceful figure.

The outfit is characterized by a straight silhouette dress with a mandarin collar, an opening running along the front, long slits on the sides, a removable long train and a headpiece made of wooden chopsticks and flowers. The removable train is cut in a peacock shaped skirt to heighten the figure frame. The borders are embellished with delicate floral appliques, embroidery outlined with metallic thread. The borders of the opening are piped with emerald taffeta to give a three dimensional look.

The flat pattern method was employed to make the dress. The train was draped.

Completed December, 1991. In appreciation to my professors, colleagues, and friends in the U.S., this design aspires to expose my culture.

SILK LANTERNS

Jeanette Pipes
Central Washington University
Ellensburg, WA 98926

"Silk Lanterns" is a special occasion dress of silk noil with full lantern sleeves, slightly pegged skirt and inset waistband. Wedge-shaped sections of black, blue, ivory and fuchsia are integrated into the cuffs and cummerbund.
BRIDAL NOSTALGIA
Becky Severin
Prof. Carolyn Schactler

The object in designing this wedding dress was to capture the mood of the 1920s. After studying several historic fashion books, "Bridal Nostalgia" evolved. The goal was to design a dress that would be comfortable during the hot weather, offer ease of movement, create a pure, flowing look and bring the 1920s to life. Long gloves, a single strand of pearls, and a headpiece interwoven with pearls completed the nostalgic look.

Off-white polyester shantung was used as the fashion fabric. A cotton/polyester broadcloth underlining and polyester lining were also used. The below-the-knee, sleeveless, chemise dress has a shirred and stuffed hip decoration extending from the front hips around the back. A layer of nylon sparkle organza was placed over the polyester shantung hip decoration. Two graduating lengths of the same organza were placed over the fashion fabric train. The tulle veil was tiered to compliment the train. The dress was underlined to support the hip decoration, then lined to lend additional support and to finish the inside of the dress.

The hip decoration presented a problem in developing a structural support to prevent the top of the hip decoration from sagging. Two layers of tulle were placed between the fashion fabric and the lining. This did not give sufficient lift, so an additional support of stiff interfacing was added along the top inside edge. More puff was needed, so the hip decoration was stuffed with polyester fiberfill. The fiberfill also serves an additional purpose, that of preventing the hip decoration from being crushed when the bride sits, or while the gown is being stored.

STRIKING ACTIVEWEAR
Neala Miller, Virginia Tech,
Blacksburg, VA, 24061
Carolyn Moore, Virginia Tech,
Blacksburg, VA, 24061

This Striking Activewear is targeted toward the female consumer who includes physical fitness in her active lifestyle. She demands activewear that is functional, yet fashionable. This outfit was completed in a design studio course. The assignment was to design a pair of leggings and matching top by draping on a human model rather than a form.

Design inspiration came from the fabric used in the leggings. The lightning bolts and geometric shapes printed on the fabric inspired the diagonal design lines in the leggings, balanced by the design lines and color blocking in the pullover jacket. The leggings are made of two Lycra spandex knit fabrics—one in neon green, and the other a print of neon green, yellow, white, turquoise, and navy blue. The pullover jacket is made of Ultrasuede in neon green, white, and navy blue. Ultrasuede, manufactured by Burlington Mills, is a two layer fabric laminate of textured nylon and a microporous film. It is waterproof and breathable. The jacket is lined in 100% cotton mesh knit for moisture absorbency. It has kimono sleeves, elastic waist and sleeve hems, and a zipper closure.

Draping on the human form was the method used to design the leggings and jacket. Test garments were draped and fitted on a live model. Paper patterns were made from the test garments and used to cut out the fashion fabric. The leggings and jacket were constructed by machine using standard sewing techniques.
HIGHLAND FLING

Kristy Roesing
Dr. Kathy Mullet, sponsor
Radford University, VA 24142

This garment was designed to meet the requirements for my draping class. In class the students were given a piece of fabric and told to drape a garment. My fabric is a tartan plaid, so I decided to drape a garment with a Scottish influence. The jacket has a shawl connected to the entire length of the center front. The shawl can then be draped over the left shoulder. The skirt is a wrap design in which the drape of the skirt follows the angle of the drape of jacket. This provides a continuous line flowing from top to bottom.

The fabric is made of 100% cotton. The plaid pattern is developed by the use of green, red, blue and yellow.

CORAL AFTERNOON DELIGHT

Melinda Scheer,
Diane Sparks Knoll,
Merry Jo Dallas,
Colorado State University
Ft. Collins, CO 80523

This design is suitable for a dressy business function or a daytime social event such as a wedding. The target market would be a successful and sophisticated career woman who always insists on being the focal point of the gathering.

The fabrics are linen-look polyester/rayon blend. The main point of the jacket is a geometric three-layered collar. White covered buttons are paired with bound buttonholes to make a well finished look. The angled front hemline of the jacket compliments the collar and aids in freedom of movement. Flat pattern technique was used to draft the patterns for jacket and skirt.
LAD IN PLAID

Laura Spahr,
Diane Sparks Knoll,
Colorado State University,
Ft. Collins, CO 80523

The goal was to design a men's ensemble that was stylish and progressive yet also have a classic, timely look. The inspiration for this piece actually came from purchase of the fabrics. I found the fabrics to be very rich in texture and thought the combination of the two would make a wonderfully interesting piece.

The fabrics are muted plaids of maize, olive, grey, and brown. They are a blend of acrylic and wool. Patterns were drafted using traditional flat pattern technique in an advanced design class.

The jacket and pants were constructed using tailoring techniques. The sleeves were machine quilted.

ORIGAMI IN GAUZE

Joe Feike,
Florida State University.
Tallahassee, FL, 32313

"Origami in Gauze" was named for the process by which it was created. This dress was for an assignment in Advanced Fashion Design taught by Mrs. Shirley Cherry at Florida State University. The concept for designing combined the arts of origami and the art of Balenciaga.

The first step in this design process was to study the 'Art of Balenciaga' as illustrated in Threads, April/May 1991. After becoming familiar with the simplistic yet elegant designs Balenciaga created, Mrs. Cherry challenged us to create our own designs using the same technique. To use this system, we took a piece of paper and by folding, and cutting only when necessary, we made miniature paper designs. After this design was approved, we cut the same pattern from the fashion fabric.

The fabric chosen, a lightweight cotton gauze, follows the ethnic silhouette of the dress. To accentuate the unique seams, I added a double row of piping along each internal line. The piping was hand-dyed from the same fabric in two distinct complimentary colors.
SPIRAL SORBET

Joe Feike,
Florida State University,
Tallahassee, FL, 32313.

This design was a class project for Mrs. Shirley Cherry involving a circular piece of fabric. The object was to cut into the circle and open it to create an attractive fashion feature for a garment.

I cut my circle from the center outward with a widening spiral. By holding one end and letting the other end drop, I noticed that a spiraling cascade was formed. This became the feature for my garment design.

To create an even more unique look, I used two contrasting colors for the cascade. Two identical spirals were cut from contrasting taffeta. These pieces were then sewn together and turned right sides out. The resulting shawl was added to the shoulder of a velvet, one shoulder minidress.

The dress had an asymmetrical hemline with one point in front and two points across the back to repeat the point at the end of the cascade. Handmade tassels of wood beads, black cotton floss, and silver thread were added to the points of the hem and the cascade for accent.

BLAZE OF BYZANTIUM

Marie Nauty, University of Nebraska
Lincoln, NE 68583-0802

Made of 100% wool, this fully lined jacket and skirt ensemble was influenced by the colors and motifs of ancient Byzantine Mosaics and ceiling tiles and was created under the guidance of Dr. Barbara Trout.
SHORT SILK EVENING GOWN

Fay Zhang, San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94122

The garment was inspired by the works of Madam Gres who is successful in classical Greek draping for contemporary high fashion consumer.

The black cut silk velvet and hand-dyed red and fawn silk chiffon were combined into the garment by using polyester chiffon as lining.

The process included using natural fabrics with high degree of drape and a hand dyeing process to obtain contemporary colors.

The fabrics were draped directly on mannequin then taken off and sewn by machine and hand.

CAREER COAT

Tiffany Fang and Sharon Underwood
Texas Woman's University, Denton, TX, 76204

Executive women need attire reflecting position, image and a sense of fashion. The wool hat and sewn patchwork black and white swing coat, embellished with a gold shawl collar and cuffs featuring black wool insertion, was created by using flat pattern and draping techniques. Completed April, 1992.

"Careerwear: Coat"
Tiffany Fang & Sharon B. Underwood
EXECUTIVE ELEGANCE

Tiffany Fang and Sharon Underwood
Texas Woman's University,
Denton, TX, 76204

Executive positions, increasingly available for women, create new challenges for designers. As wardrobe demands change, subtle line variations may be used to enhance the silhouette while retaining a corporate image. This 3-piece suit, designed through flat pattern techniques, was executed in wool for appearance, comfort, resiliency, and durability. Completed: November, 1991.

ODE TO FABERGÉ

Lori L. Brock, Marymount University
Arlington, VA 22207
Pamela Stoessell, Marymount University
Arlington, VA 22207

The coat, "Ode to Fabergé" was designed and constructed by Lori L. Brock, as an assignment within the Textile Design course at Marymount University. Lori's objective was to create an elegant coat that fits many sizes (size 6-16) that can be worn in a variety of ways. It reflects Lori's belief that clothing should be multi-functional and that society will welcome apparel that conserves products.

Inspired by the royal eggs of Fabergé and the period in which they were made, the coat features a two sided detachable collar, outlined with fox, with hand beaded interpretations of decorative Fabergé eggs. The collar can be worn to display its plain or decorative side. It can also be worn as a hood, or separate from the coat, as a stole.

The main body of the coat was made by the standard draping method and the collar and fur trim by the flat pattern technique. The coat is made of red woolen fabric, lined in red acetate, and trimmed with black fox. The fur pelts were sent to New York to be tanned and dyed black. Once returned, they were cut and wet, stretched and nailed to a board in the shape of the pattern pieces. The fox fur was then backed with fabric and hand sewn with a leather needle.
STUDY IN WOOL AND ULTRASUEDE

Margie H. Osborne,
East Tennessee State University,
Johnson City, TN, 37614
Dr. Anna Duggins Roberts,
East Tennessee State University,
Johnson City, TN 37614.

This design began as a vest for a weaving class assignment. After laying out the striped and plaid sections the idea gradually emerged to create a jacket instead of the vest by combining the woven sections with Ultrasuede.

The Chanel style jacket with front and back yokes features handwoven fabric of 100%, 2-ply wool tweed yarns accented with emerald and navy Ultrasuede. The plain weave, wool fabric in both stripes and plaid combines muted tones of deep green, rose, steel gray, and navy.

Details include navy Ultrasuede piping at yoke edges, on lower sleeve bands, and around center front and neck edges, as well as down the outer edges of a box pleat lined with green Ultrasuede at center back. The set-in sleeves of green Ultrasuede are also edged with a band of wool plaid. The jacket is fully lined with 100% green polyester fabric and has a hidden hook and eye closure.

The wool tweed fabric was handwoven at 12 e.p.i. in a plain weave form. The flat pattern design eliminated underarm seams on the jacket body to reduce bulk. The wool fabric was serged prior to construction to prevent excessive raveling. Ultrasuede seams were "pressed" open with a flexible fabric glue. Jacket front, yokes, and hems were faced with a fusible, weft-insertion interfacing for stability. The jacket was sewn by machine, while the hems and lining were sewn in place by hand.

FROM THE DEPTHS OF AFRICA

Chad Kassmeier, University of Nebraska
Lincoln, NE 68583-0802

The main purpose of the project was to create a gown with contemporary styling based on customs, traditions and ceremonial garments of several African tribes. It was created as a course project under the supervision of Wendy Weiss.
MOP AND GO

Susan L. Sokolowski, Anthony Freitas, and
Margaret M. Sanderell, Cornell University
Ithaca, New York 14853-4401

The roles of women in the US have changed
dramatically in the last thirty years. Today, 57% of the
women in the US work outside of the home; women
hold 40% of the paid jobs, singly support more than
12% of the households (Bureau of Labor, 1989)
and, like women of previous generations, perform
roughly 70% of the unpaid labor in the home
(England and Farkas, 1986). The “average” mother
who works outside of the home spends an additional
30-60 hours each week cleaning, cooking,
laundering and caring for children (Berk, 1985). It is
estimated that the value for this unpaid labor is
equivalent to 25 and 40% of the GNP or between 1
to 2 trillion dollars yearly (Bureau of Economic
Analysis, 1989).

Our suit design is meant to draw attention to this
undervalued work by taking control of materials very
familiar to most women and using them for fun and
pleasure, not just drudgery. Visual artist Marcia
Wynes recently did this with her show Domestic Arts.
By using sequins, beads, historical images of art
and household utensils, she blended the areas of
industrial design, women's work and fine art.

As with Wyne's work, the untailored suit
constructed out of dish towels, clothespins and mop
heads, draws attention to the conflicts and
paradoxes present in the lives of many women. In
detail, the red and white double breasted, fully lined
jacket made of dish towels utilizes the towel's strong
woven border, has a back yoke, notched collar and
front clothespin closure. The skirt, constructed out
of mop heads, has an elasticized waistband.

From cooking to cleaning, from laundry to child-
care, the unpaid or underpaid labor performed by
women, especially women of color, has been
continually exploited by our whole society. It is
hoped that this suit will inspire a discussion regarding
the expectations, realities and myths surrounding
the role of housework in our society and the role of
women in housework. Primarily, however, this suit
was presented as an expression of support for
women who work full time jobs all the time.

Employment and earnings.
Plenum Press.
England P. & Farkas, G. (1986). Households,
Employment and Gender, New York: Aldine.
of California, Davis, Craft Center Gallery.

PEACOCK PANDEMONIUM

Wendy Maupin, University of Nebraska
Lincoln, NE 68583-0802

The colors, textures, and imagery of
peacock feathers were used as inspiration in the
design of this 100% wool jacket with accompanying
collar, designed under the supervision of Robert
Hillestad. Design techniques used in the
construction of the garment include: shaped
weaving, dyeing, beading, fringing, stamping and
embroidery.
THUNDERGODDESS PITCHY-PATCHY

Deborah Morris,
Diane Sparks Knoll,
Colorado State University
Ft. Collins, CO 80523

This design is derived from a Caribbean masquerade festival which, in turn was derived from an African festival called performed in Yoruba. The masker is completely hidden by layers and layers of cloth, and by this masking is transformed. This masquerade honors the "other world" or ancestors.

Formal elements of the piece deal with form, texture, light & reflection, and movement. The theme is women's imagery in art. Sequins, roofing tins, mirrors, confetti, holographic paper, and laminated images of women decorate the surface of the jacket. The pants are built with layers of net stitched in rows and shredded for a feathery effect.

MASQUERADE

Eulanda Sanders,
Diane Sparks Knoll,
Colorado State University,
Ft. Collins, CO 80523

An Igri African mask was the inspiration for this hand-knitted sweater dress. The Igri is a long thin mask with rectangular eyes and a sharp, flat nose. This mask is used by dancers for entertainment.

This garment is a black turtle neck tank dress with a mask motif on the back. The sweater is created with cotton and rayon yarns in black, taupe, cinnamon, and olive. The "Y" opening in the back allows the wearer's skin to provide the fifth color to the mask on the back. Hand-knitting was done in a stockinette stitch, a 2 X 2 rib knit, and a single crochet armhole edging.
X'S AND O'S

Marie Nabity, University of Nebraska
Lincoln, Nebraska 68583-0802

Cotton yarn was hand dyed in a variety of subdued colors and woven in a lace weave with a specific treadling sequence to produce the "X" and "O" pattern. Following conception of the yardage, which was supervised by Wendy Weiss, Advanced Fiber Art Instructor, the flat pattern technique was used to create a box-like silhouette which emphasized the geometric qualities of the fabric. Then, the garment was constructed with padded shoulders, cuffed sleeves and a full lining. Finally, circles of woven fabric were cut, molded over forms, and bound with braid to create the hand crafted buttons.
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