

HANDWEAVERS' ENDURING PRODUCT INVOLVEMENT WITH CRAFT YARNS  
AND SELECTED INFORMATION PROCESSING VARIABLES

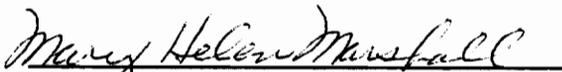
by

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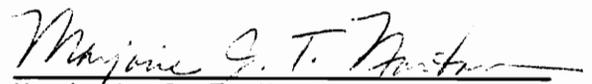
MASTER OF SCIENCE  
in  
Clothing and Textiles

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(ABSTRACT)

This study investigated attributes of craft yarns of most interest to handweavers, sources of information used by handweavers to learn about craft yarns, and methods used by handweavers to communicate information about handwoven textiles to ultimate consumers. In addition, the extent of the sample group of handweavers' knowledge of Federal Trade Commission TRR 16 C.F.R. 423 on care labeling for garments was examined. Finally, relationships between information processing behaviors drawn from the theory of enduring product involvement were examined.

The survey was returned by 81 handweavers from four handweaver's guilds in three Southeastern states. The yarn attribute with the highest importance rating was "matching the type of yarn to what it will be used for" with a mean importance rating of 5.649 out of 6. Important sources of care information for handweavers were experience, yarn wrappers, and other weavers. On the yarn wrapper, the most

important information was fiber content and length in yards. Also of strong importance were washfastness rating, written care instructions, and lightfastness rating.

Only two of seventeen weavers who sold their products included a permanently attached care label as required by law. And 70% of the weavers incorrectly believed that a paper hang tag was an acceptable care label for a garment when it was sold.

Five elements of enduring product involvement were operationalized in the instrument: centrality to ego-identity, hedonic value, self-reported expertise, craft-related activities, and specialized fiber-art interests and activities. Each of the five elements had a high positive correlation to the overall score ( $p < .0001$ ). The correlation between the involvement score and information seeking behavior frequency score was low, (0.345) but significant ( $p < .001$ ), while the correlation between the involvement score and importance of attributes was not significant.

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## CONTENTS

Acknowledgements .....	iv
List of Tables .....	vii
List of Figures .....	ix
CHAPTER I INTRODUCTION .....	1
Justification for the Research .....	2
CHAPTER II REVIEW OF RELATED LITERATURE .....	8
Consumer Information Processing .....	8
Product Concepts .....	9
Involvement .....	11
Enduring Product Involvement .....	12
Prior Knowledge of Products .....	15
Involvement and Product Knowledge .....	20
Handcraftspeople .....	24
Handweavers .....	30
Craft Yarns .....	34
Craft Yarn Market .....	35
Information on Yarn Wrappers .....	37
Standard units for measuring yarn. ....	38
Properties of Craft Yarns .....	40
Aesthetic and Performance Properties .....	40
Servicability .....	41
Fiber properties. ....	43
Yarn properties. ....	43
Fabric structure. ....	46
Colorfastness. ....	46
Care Considerations .....	52
Sources of Care Information	
for Handweavers .....	54
Labeling Legislation. ....	56
Use of care labels. ....	63
Summary .....	67
CHAPTER III STATEMENT OF PROBLEM .....	69
Objectives .....	70
Conceptual Framework .....	71
Enduring Product Involvement .....	72
Information Seeking Behaviors .....	72
Yarn attributes .....	74
Aesthetic Properties .....	75
Performance properties .....	76
Servicability. ....	76
Definitions .....	77
Working Hypotheses .....	79
Limitations .....	79
Assumptions .....	80

## CONTENTS Continued

CHAPTER IV PROCEDURES .....	81
Design of Study .....	81
Sample .....	82
Development of Instrument .....	82
Enduring Product Involvement .....	83
Information Seeking Behaviors .....	85
Attributes .....	85
Additional Scales .....	86
Pilot Test .....	87
Analysis of Data .....	88
Involvement, Attributes Score, and Information Seeking Behaviors Frequency Score .....	89
Performance and Aesthetic Properties of Craft Yarns .....	90
CHAPTER V FINDINGS AND DISCUSSION .....	91
Descriptive Data .....	91
Characteristics of Sample .....	93
Yarns Used by Sample .....	101
Products .....	105
Attributes of Craft Yarns .....	107
Importance of Information on Yarn Wrappers .....	107
Importance of Yarn Attributes .....	112
Sources of Information About Craft Yarns .....	115
Formal Courses of Instruction .....	118
Craft Magazines .....	118
Methods of Communicating Care Information .....	121
Knowledge of Care Label Regulations .....	123
Generated Data .....	126
Enduring Product Involvement .....	126
Correlation Of Enduring Product Involvement and Information Processing Variables .....	129
Importance of Attributes .....	131
Information Seeking Behavior .....	132
Performance and Aesthetic Properties for Craft Yarns .....	133
CHAPTER VI SUMMARY AND RECOMMENDATIONS .....	135
Recommendations .....	138
Operationalization .....	138
Suggestions for Further Research .....	139
REFERENCES .....	140
APPENDIX A Letter to guild presidents .....	150
APPENDIX B Postcard .....	152
APPENDIX C Instructions to contact person .....	154
APPENDIX D Questionnaire .....	156
VITA .....	161

## LIST OF TABLES

Table		Page
1	Distribution Of Handweavers By Time Spent In Fiber-Art Related Activities .....	95
2	Percent Distribution Of Handweavers Engaging In Activities Related To Crafts .....	98
3	Percent Distribution Of Handweavers Engaging In Fiber-Art Activities .....	99
4	Percent Distribution Of Handweavers Using Yarns Of Various Fiber Types .....	102
5	Fiber Types And Fiber Blends Listed By Handweavers .....	103
6	Percent Distribution Of Handweavers Using Sources Of Yarn .....	104
7	Percent Distribution Of Handweavers By Products .....	106
8	Products Listed By Handweavers .....	108
9	Handweavers' Mean Ratings For The Importance Of Information On Yarn Wrappers .....	109
10	Handweavers' Mean Ratings For The Importance Of Selected Attributes For Craft Yarns .....	113
11	Percent Distribution Of Handweavers Using Sources Of Care Information For Handwoven Textile Items .....	116
12	Frequency and Percent of Handweavers Who Have Had A Formal Course Of Instruction .....	119
13	Magazines Listed By Handweavers .....	120

14	Types Of Information Provided By Professional Handweavers To Purchasers of Handwoven Textile Items .....	122
15	Distribution of Handweavers' Responses To Statements Derived From Care Label Regulations .....	124
16	Means of Handweavers' Enduring Product Involvement With Craft Yarns .....	127
17	Correlation of Handweavers' Involvement Scores With Importance of Attributes Scores and Information Seeking Behavior Frequency Scores .....	130

## LIST OF FIGURES

Figure		Page
1	Elements Of Enduring Product Involvement .....	73
2	Statements Measuring Handweavers' Enduring Product Involvement With Craft Yarns .....	84
3	Distribution Of Handweavers By Years Of Familiarity With Handweaving .....	94
4	Distribution Of Handweavers By Percent Of Household Income Derived From Sale Of Handwoven Textile Items .....	96

**CHAPTER I**  
**INTRODUCTION**

The idea that artists and craftspeople, such as handweavers, have an intellectual and emotional relationship with their materials is intuitively appealing, but lacks empirical evidence. Little is known about the specific attributes of craft yarns in which handweavers are most interested, sources of information used by handweavers to learn about craft yarns, or methods used by handweavers to communicate information about handwoven textiles to ultimate consumers.

Involvement theory may be used to examine handweavers' intellectual or emotional relationship with their materials. Enduring product involvement results from importance of the product to an individual's values and sense of self. Empirical evidence suggests that enduring product involvement leads to an intrinsic motivation to learn more about the product and to form knowledge structures for storing information. It has been demonstrated through objective tests that highly involved individuals can access stored product-related information and process new product-related information with more ease than can those persons with less involvement. Repeated studies have also shown

that highly involved people examine more product attributes and engage in extensive searches for information.

If handweavers were characterized by enduring product involvement with craft yarns, then involvement theory could be used to explain various aspects of handweavers' information processing. Furthermore, it could be demonstrated that handweavers examine many attributes for craft yarns, engage in extensive searches for information about craft yarns, and willingly distribute information about handwoven textiles because they are intrinsically motivated.

### **Justification for the Research**

If relationships between the information processing variables are supported by this research, then this study will provide further empirical evidence for involvement theory. Involvement theory may be applied to other groups of people who voluntarily engage in specialized activities. As increasing numbers of Americans express their individuality through leisure activities, consumer research may examine high involvement activities and their significance in society.

In addition, marketing research may identify specialty products which are purchased to support high involvement

activities. Past research has shown that enduring product involvement spans many years of consumption. Over the years, highly involved persons represent a loyal and consistent market. Demand for specialized products is thought to be unresponsive to changes in price, or inelastic. With inelastic demand, price and total revenue change in the same direction. Specialized products can represent a continuous source of revenue to a company. Producers may want to become familiar with the characteristics of groups that use their products, in order to market successfully to them.

Individuals who are known to be highly involved serve as information leaders, and are called upon to recommend brands to less involved individuals. Thus, if producers determine the attributes that highly involved people use to evaluate products, they can engineer these products towards these specialty markets.

Highly involved people use specialized sources of information. There are newsletters, magazines, and other publications such as mail-order catalogs, as well as electronic bulletin boards and other methods of communication. Special-interest publications often assume a solid base in product knowledge among their readership. Even the advertisements use jargon or technical shorthand.

Highly involved people gather to share information about the specialized activity they have in common.

Special-interest clubs may be formed. National organizations hold conventions, or organize product fairs and trade shows. Colleges or clubs may sponsor workshops. Anyone interested in reaching this specialty market may determine the sources of information which hold the most credence or are most frequently consulted.

The most important justification for this research regards a practical application of these principles to an area of growing concern. Many textile handcrafters may not be aware that Federal law requires permanently attached care labels on handcrafted garments which are to be sold.

Handweavers recognize the importance of care instructions for handwoven textile items which are sold. Guilds have established professional standards of labeling for their members, which often require a hangtag stating guild affiliation and care instructions. Some guilds require that care procedures be pretested. Craft fair administrators often set additional guidelines in order to prevent exhibitors from having dissatisfied consumers.

Thus, handweavers may conscientiously provide care instructions, but few may be aware that they are required by law to attach a permanent care label to any garment which will be sold. A permanently attached care label will be available at the point of care for the life of the garment. The label serves as an implied warranty that the product

will serve satisfactorily so long as the care instructions are followed.

Under staff interpretation of the Federal Care Labeling Rule 16 C.F.R. 423, the handweaver of a garment is assigned the responsibility as manufacturer of the garment when it is sold. Any craftsperson who sells garments to the public accepts this responsibility. Textile craftspeople, including home sewers, needleworkers, knitters, quilters, those who applique, fabric painters and tie-dyers, who sell garments, are specifically covered by the Federal Trade Commission Trade Regulation Rule. If a dissatisfied consumer resorts to litigation, the craftsperson is responsible. In a small claims court, the label serves as an implied warranty (Stephen Ecklund, Federal Trade Investigator of the Federal Trade Commission, personal communication, July 12, 1989).

While members of the textile and apparel industry design products on a large scale based on performance and aesthetic considerations, handweavers design products on a small and individual scale based on the same considerations. Lacking test facilities which are used by industry to confirm product performance, individual handweavers must experiment with different materials and techniques to determine which will perform most satisfactorily.

Weavers who use commercially packaged craft yarns can refer to the wrapper, which may have care instructions.

Handweavers who spin or dye their own yarns, or purchase mill ends of industrial yarns, have no care instructions for reference. Handweavers may blend several yarns, or use a different yarn count, which would affect the care instructions for finished items.

Handweavers have few guidelines for developing care instructions. They must rely on their knowledge of the intrinsic qualities of yarns and dyes, and be able to predict how different combinations of fiber, yarn, and fabric constructions will perform. In addition, they must anticipate how the consumer will use the finished item, and how the consumer may attempt to care for the item.

The purpose of this research is threefold. First, to investigate the relative importance handweavers place on attributes of craft yarns, sources of information used by handweavers to learn about craft yarns, and methods used by handweavers to communicate care information about handwoven textiles to ultimate consumers. This information is of value to manufacturers and marketers of craft yarns, and to those who wish to reach the specialized market of handweavers to educate or persuade. Secondly, the extent of the sample group of handweavers' knowledge of Federal Trade Commission TRR 16 C.F.R. 423 on care labeling for garments will be examined. The importance of this information lies in identifying whether handweavers have adequate knowledge to meet their legal responsibilities. Finally,

relationships between information processing behaviors drawn from the theory of enduring product involvement will be examined. Enduring product involvement theory has a great deal of explaining power but lacks empirical findings.

## **CHAPTER II**

### **REVIEW OF RELATED LITERATURE**

The review of related literature is presented in three sections. The first section presents theoretical and empirical discussion of enduring product involvement and consumer information processing. The second section focuses on handcraftspeople and professional handweavers. The final section covers the craft yarn market, properties of craft yarns, and sources of care information for the handweaver.

#### **Consumer Information Processing**

A general model of consumer information processing exists, and it is generally known that expert consumers process information differently than novice consumers (Kassarjian & Robertson 1968). Expertise can develop as a result of having intrinsic motivation to learn because of involvement with a product. During the learning process, knowledge structures are developed that categorize and integrate information. Two information processing skills have been identified: (a) expert consumers are more aware of sources of information available to them, and (b) expert consumers can assimilate a larger number of attributes in a more effective way than nonexpert consumers. Expert consumers who have involvement with a product class can

experience a complex and specialized activity as hedonic, or pleasure based, consumption.

### **Product Concepts**

In marketing theory, a product is anything capable of satisfying consumer wants or needs. The physical object is in the center of the total product concept which includes all the dimensions of choice, such as quality, credit terms, warranty, the reputation of the manufacturer or retailer, packaging, information, delivery, and service (Busch & Houston, 1985). The dimensions of choice are the attributes of the product.

Lancaster (1971) described the product as a collection of characteristics. Consumers possess preferences for certain collections of characteristics, and are interested in goods as a means of obtaining desired characteristics. The wants or needs of consumers exist on many levels and products are judged on many levels.

Multiattribute decision rules are used by consumers to assess the benefits they believe will be received from different attributes of products. Some attributes are weighted so that they have more impact in the final decision. Decision rules are used to reject and select products. Decision rules that are used many times and

become habitual are referred to as heuristics (Busch & Houston, 1985).

Curry (1988) argued that product quality, rather than being intrinsic to a product, lies in consumers' perceptions of the product. The product provides both aesthetic and performance properties. Manufacturers measure and modify the physical attributes of the product. Consumer testing organizations report, rate, and rank products largely on the basis of physical attributes and price. Mechanical rating of physical properties yields a "quatility [sic] or partworth quality scale" (p.116). However, attempts to develop normative theories of aesthetic evaluations of quality are more rare.

As quality becomes a concern of increasing importance, manufacturers will need to learn how consumers perceive the quality of their products. Expert consumers, who have educated opinions and are familiar with the range of performance and aesthetic properties for the product, could provide important feedback to manufacturers. Feedback of this nature could help producers select the attributes to monitor in the manufacturing environment.

Expert consumers who also have an emotional involvement with the product might evaluate products on a more sophisticated level than novice or uninvolved consumers. Thus, enduring product involvement might be a normative theory for aesthetic evaluations of quality.

## Involvement

Involvement is a variable or a determinant in consumer information processing. Involvement is a state of being engaged or caught up in something. Involvement has a positive influence on each of the stages of consumer information processing: exposure, attention, comprehension, acceptance, and retention (Engel, Blackwell, & Miniard, 1986).

The degree of involvement emerges in part from the nature of the product. Copeland (1923) identified three types of consumer goods that call for different information-searching behavior: (a) shopping goods, purchased infrequently, which vary in an important attribute, such as quality, price, or style, requiring a search for information and analysis of the attributes; (b) convenience goods which are purchased frequently with a minimal effort to search for information; and (c) specialty goods which have such unique characteristics that consumers will make a major effort to obtain them and will accept no other good as a satisfactory substitute.

There are three types of involvement: (a) situational involvement, (b) normal, or low involvement, and (c) enduring product involvement. The decision to purchase complex "big ticket" items such as cars, electronic equipment including computers, major appliances, or for

handweavers, a loom, brings about situational or brand choice involvement. The information search and analysis of attributes is tied to the immediacy of the purchase situation (Engel, Blackwell & Miniard, 1986; Kassarian & Robertson, 1968; Thorelli, 1975). Olshavsky (1988) contends that most consumer purchases such as routine purchases of convenience goods like detergent, canned vegetables, or irons, are in the low involvement category. The third type of involvement, enduring product involvement, will be discussed in detail in the next section because it is the type of involvement central to the present study.

### Enduring Product Involvement

Product involvement exists when a person associates a state of arousal with the product and makes some effort to seek it out. Enduring involvement occurs when a person makes a place in their life for the product. Involvement with the product spans those times when the person is neither purchasing nor using the product. Needs, values, or self-concept are reinforced by involvement with the product.

Enduring product involvement has been extensively defined and redefined in the literature. However, certain similarities have appeared in the definitions. Bloch and Richin (1983) defined enduring product involvement as "long-term, cross-situational perception of product importance

based on the strength of the product's relationship to central needs and values" (p. 72). Zaichkowsky (1985b) defined involvement as "a person's perceived relevance of the object based on inherent needs, values and interests" (p. 342). Kapferer & Laurent (1985) divided the consumer involvement profile into facets. "Two facets of the involvement profile correspond to enduring, nonsituational aspects of the consumer's relationship to a product: the perceived importance of the product and its hedonic value" (p. 43). Rothschild (1984) proposed a generic definition:

Involvement is a state of motivation, arousal or interest. This state exists in a process. It is driven by current external variables (the situation; the product; the communications) and past internal variables (enduring; ego; central values). Its consequents are types of searching, processing, and decision making (p. 217).

Enduring product involvement exists when people have become absorbed with the product and devote many of their leisure hours to activities and pursuits associated with the product. The individual's lifestyle revolves around the product and associated activities. Such activities include "ongoing information search, perpetual vigilance, and high levels of product maintenance" (Bloch & Bruce, 1984, p. 200).

Intrinsic motivation to learn more about the product is rewarded in two ways: (a) by increased expertise, and (b) by vicarious enjoyment of products that are beyond the person's

resources. Product enthusiasts are more vigilant and sensitive to information that is either seemingly unrelated or presented in a random manner. Enthusiasts' frame of reference is so closely tied with the product that such associations are unconscious (Bloch, 1986). Product-related activities can fall into three categories: (a) product nurturance or maintenance; (b) associated activities such as reading books or magazines, attending shows or exhibits, taking classes, or joining clubs; and (c) specialized forms of product use (Bloch & Richin, 1983).

Specialized forms of product use might extend at the same level as the original, as handweavers may experiment with complex weave patterns. Or, product specialization might extend vertically into raw materials or finished products. Handweavers may spin their own yarns or tailor garments out of their completed yardage. They might experiment with a variety of materials in order to learn more about the nature of the materials. Handweavers may sample a variety of fiber art techniques. Unless individuals seek new challenges, satiation may ensue and involvement diminish (Bloch & Bruce, 1984).

Participants in a deeply involving activity are completely absorbed in the experience; there is "a merging of action and awareness; a centering of attention on a limited stimulus field; a loss of ego or sense of self" (Csikszentmihalyi & Rochberg-Halton, 1981, p. 186). This

sensation, called flow, is deeply pleasurable. People will be intrinsically motivated to return to the activity to recapture the sense of involvement.

Another important aspect of the leisure experience is that people are able to shape the activity themselves for their own greatest enjoyment. The sense of freedom or independence from outside constraints is very important (Unger & Kernan, 1983).

Holbrook and Hirschman (1982) describe hedonic consumption as having relevance for the arts, music, movies, fashion, and leisure activities. The richness of the consumption experience with its "fantasy, feelings and fun" also applies to consumer products. Consumers' experience of a hedonic product is multisensory. Gratification is pursued in a direct and uncomplicated way. It is relatively nonverbal-- people sometimes daydream or have free association pictorial images.

### **Prior Knowledge of Products**

Researchers have studied consumers' prior knowledge of products and the processing of new information about products. Johnson and Russo (1984) identified six skills that develop from consumers' familiarity with a product class: (a) awareness of the range of alternatives available; (b) ability to arrange new information into

categories and integrate it with pre-existing cognitive structures; (c) ability to determine if new information were compatible with pre-existing information; (d) ability to discern relevance to current search; (e) use of prior knowledge to limit the extent of search; and (f) encoding bits of information more effectively, and having more efficient decision procedures, or heuristics. In combination, these information processing skills allow product-familiar consumers to be more efficient.

The inverted U information seeking curve has been used to explain why "highly familiar consumers search less than those who are moderately familiar" (Johnson and Russo, 1984, p. 542). Consumers who are moderately familiar make the greatest effort to search for information, forming the peak of the inverted U. The low ends of the inverted U are formed by those with very low and very high product knowledge. Those who are least familiar with the product make little effort because the task seems overwhelming. Those with high knowledge quickly gain possession of necessary information and integrate it with pre-existing schemata.

Srinivasan and Agrawal (1988) examined prior knowledge and amount of search with a sample of 1,401. They consistently found moderate positive correlations between different types of knowledge and different types of search.

The data did not provide consistent support for the inverted U hypothesis.

Bettman and Park (1980) studied heuristics of 99 housewives grouped according to their familiarity with the product. Familiarity was rated objectively, as to whether the person had ever used, owned, or searched for information about the product. Bettman and Park concluded that the low familiarity group found the task too difficult, and sought an easy solution. The high familiarity group was not motivated to seek outside information, but made the decision largely on the basis of their prior knowledge. The moderate familiarity group had the ability to integrate the information due to pre-existing knowledge structures, and had the motivation to seek and process more attribute-related information.

Alba (1983) found that high-knowledge people recalled a greater quantity of idea units and greater quality of complex information than low-knowledge people. When 79 undergraduate subjects evaluated a lengthy technical description of a stereo system, high-knowledge people found the information to be more comprehensible, more useful, and less believable than did low-knowledge people.

In a study of the content of consumer knowledge structures, Brucks (1986) found that students who were serious runners (n = 26) acquired terminology to describe running shoes, as well as knowledge structures needed to

link product usage situations and appropriate product characteristics. Taxonomies for classifying materials, numerical grades, and standard terminology simplify and clarify the task of describing attributes desired in a complex product.

There are two ways of measuring prior knowledge of a product class: objective and subjective. Objective knowledge can be measured simply as contact with a product class (Bettman & Park, 1980; Park & Lessig, 1981). Objective knowledge can also be measured by a pretest which has correct and incorrect answer categories, or where the subject must supply a correct answer. Subjective knowledge is rated by the subject. This can be compared to the subject's score on the objective tests (Brucks, 1985; Cole, Gaeth, & Singh, 1986; Selnes & Gronhaug, 1986). Depending on the purpose of the research, either objective or subjective measures of prior knowledge may be used.

Brucks (1985) determined effects of product class knowledge on information search behavior. Thirty-two subjects' familiarity with the product class was rated objectively by a pretest in the areas of terminology, available attributes, criteria for rating attributes, variation among attributes, and usage situations (simple or complex). A subjective self-rating of expertise was also made. Those individuals who subjectively rated themselves high eliminated inappropriate alternatives early in the

decision-making process, and relied little on dealer evaluations.

Nonexpert consumers deal with each piece of information independently and as if each piece of information has equal importance. Srull (1983) conducted a series of experiments with undergraduates, testing recall with interference, with mood manipulation, and after repetition. The number of attributes recalled and accuracy of recall was higher for self-reported experts than for nonexperts.

The type of advertising that may be most effective may be related to existence of knowledge structures. Novices may be swayed by experiential information, while expert consumers may look for information about attributes of products that contribute to performance (Beattie, 1983).

Cole, Gaeth and Singh (1986) compared three methods of measuring prior knowledge ( $n = 45$ ), and concluded that self-assessed feelings, while in a usage situation, may be more related to subjective knowledge than they are to objective knowledge. Selnes and Gronhaug (1986) contrasted subjective and objective measures of product knowledge ( $n = 297$ ). Subjective measures were tested against objective measures which included level of differentiation between attributes, discrimination in weighting attributes, integration of concepts, and complexity of terminology. The researchers concluded that the two measures were not interchangeable. Objective measures should be used when research is focused

on knowledge structures, and subjective measures should be used when research is focused on motivational states.

### Involvement and Product Knowledge

Studies of prior knowledge have focused on short-term uses of acquired information in purchase situations, typical of situational or brand choice involvement. Subjective measures of expertise were related to motivational state and feelings of enjoyment when using the product. However, if consumers' interest in product attributes spanned times when they were not buying or using the product, this would be more typical of enduring product involvement.

The following studies dealt with the individuals with enduring product involvement, i.e., involvement beyond purchase exigencies (Bloch, 1982). Product involvement has been measured in two ways: (a) instruments that are generalizable across many products, advertisements, and purchase decisions or (b) instruments that are designed around products, based on examination of observed use of products and behavior of enthusiasts.

Zaichkowsky (1985b) developed a semantic differential scale with 20 word pairs such as "important/unimportant, mundane/fascinating, vital/superfluous, and needed/not needed" (p. 350). The Personal Involvement Inventory (PII) measured involvement with products, although involvement

specific to a situation or an advertisement could also be measured. When used to test individuals' involvement over different products and situations, the PII was found to discriminate significantly between high and low involvement.

Zaichkowsky (1985a) studied links between product use, familiarity, and expertise for red wine and 35-mm cameras. Subjects were 28 MBA students. A battery of objective measures for product categories was administered along with the Personal Involvement Inventory (PII). Correlations were not significant. The researcher concluded that validity and reliability of the objective tests were not known, and that self-reported, or subjective measures of expertise, might relate more highly to involvement.

Bloch (1981) measured involvement by measuring behaviors presumed to be related to high involvement with automobiles: interest in cars and readiness to talk about them, relatedness of cars to important needs and values, use of cars to express self-concept, attachment to one's own car, and interest in car racing. The measured behaviors were obtained through reading automotive magazines and through interviews with enthusiasts. Involvement scores correlated significantly with all of the behavior measures. Results from 90 students with low or moderate involvement were compared to results from the same number of highly involved members of sports car clubs. The difference between the two means was significant at  $p < .001$ .

Bloch (1982) measured whether involvement with two product classes served to express or enhance individuals' self-image (n = 438). The aspect of involvement studied was strength of the product's relationship to the individual's needs, values and self-image. Cars and clothing were chosen because most people, no matter what their level of involvement, are familiar with those products. The involvement section of the instrument was designed to measure subjective knowledge, opinion leadership, interest, and information search independent of purchase behavior. Self-image was found to be an important component of involvement.

Venkatramen (1988) found a strong correlation between involvement and aspects of the diffusion process. Undergraduate subjects (n = 317) responded to four questionnaires which focused on opinion leadership, innovativeness, information seeking, information sharing, influence, and expertise, as well as frequency of product related behaviors. Items that measured involvement assessed centrality of products to individuals' lifestyles as described in Bloch and Richin (1983). The product chosen was movies. Many aspects of information diffusion were positively related to involvement. Subjects with higher involvement scores were interested in reading about movies even when they had no specific purchase motivation, knew more about movies than most people, were asked by friends

for advice about movies, made an effort to keep up with the latest releases, and made special trips to see new movies.

Laurent and Kapferer (1985) proposed that consumer involvement emerges from a set of antecedents within individuals and that consumer involvement profile influences the extent of decision making process and information search. Involvement profiles emerge from long-term relationships that consumers have with products, and are divided into four facets: (a) sign value is perceived expressive value of products, (b) hedonic value is pleasure and emotional content of the products, (c) interest is centrality of the product classes to individuals, and (d) risk is the danger of making a poor decision. Laurent and Kapferer studied product involvement of 1,568 women in France. The 20 products included televisions, detergents, perfume, and mattresses. The researchers found that interest, expectations of strong pleasure and perceived risk led people to spend time and energy in the decision process.

Mittal and Lee (1988) refined the scale developed by Laurent and Kapferer (1985) by separating brand choice, or situational involvement, from enduring product involvement. The researchers found that hedonic and sign values for beer, the product, in 78 student subjects supported separate constructs for enduring product and brand choice involvement. Interest in reading articles and frequency of

product use were more related to product level involvement than to situational involvement.

When people are involved in a hobby or a favorite activity, there is no conscious choice between cognitive thinking and enjoyment. There is an intrinsic motivation for them to learn more about products and processes in which they are involved. This may actually increase their enjoyment. A person with a high level of enduring product involvement has the following characteristics:

[Is] aware of a large proportion of available brands in a product class, possesses a well developed set of product attributes to use as evaluative criteria, has determined what is desirable and undesirable in each attribute, and holds beliefs about . . . most or all of the criteria (Busch and Houston, 1985, p. 214).

These characteristics may apply to handweavers and their involvement with the product class of craft yarns.

### **Handcraftspeople**

Craft is the creation of original objects through an artist's disciplined manipulation of material. Smith (1986) identified two attributes of craftspeople: (a) they place a strong emphasis on developing technical virtuosity, and (b) they have a reverence for the inherent beauty of materials. Strong design, not just in surface ornamentation but also in structure and form, is an important feature of handcrafted items (Emery, 1976).

Emerging from these definitions is the belief that each handcrafted item should be a unique expression of the artist, with the qualities of the material revealed through the techniques of the craft. Craftspeople explore the nature of the material in order to increase its expressive power.

Some theorists have differentiated craft from art by stating that craft items have some use or purpose, while art exists solely for the purpose of aesthetic expression. The corollary of this statement might be that an ordinary object is transformed to an extraordinary object when it is crafted by hand (Smith, 1986).

Mills (1951) described craftsmanship as work done not only for the extrinsic or market value of the goods, but also for the intrinsic value or gratification derived from the work. Entrepreneurs, artists, and scholars, among others, fit into the model of work gratification that Mills ascribed to the craftsman.

Craftspeople have intrinsic motivation to work. The details of daily work are critical to the outcome of the finished product, which is an image formed in the craftsperson's mind. According to Roberts, Scammon and Schouten (1988), "the intense concentration required for complex achievement appears to be most readily available when given willingly" (p. 431). Skills obtained from voluntary investment of psychic energy allow craftspeople to

increase their powers of self-expression and also to gain stature among their peers. Not only do skills improve, but inner qualities of discipline and concentration grow as well.

Craftspeople have a strong involvement with the tools and materials of their craft. Production is experienced as hedonic consumption by craftspeople. Time stands still, the world slips away as the mind and body are fully involved with the task at hand to the exclusion of all else. Even if craftspeople eventually sell what they have made, they are the "first and maybe the most ardent consumer" of what they have made (Roberts, Scammon & Schouten, 1988, p. 432)

Harrison (1978) argued:

An artist's 'feeling for materials' . . . is perhaps above all an area of human experience where it is fundamentally a mistake to suppose that a category of emotion excludes a category of thought. A 'feeling for materials' is a feeling . . . that directs attention and concentrates choice and judgement in a particular and often highly specific manner [*italics in original*] (p.73-74).

For people who earn a portion of their income from craft, the line between producer and consumer is blurred. Toffler (1980) coined the expression prosumer to describe someone who is both producer and consumer. Kotler (1986) explored some implications of the prosumer movement, and found that people with specific needs or quality standards may find that they are best satisfied by things they make themselves. Prosumption can fulfill a need for self-

actualization, the highest level in Maslow's (1970) needs hierarchy.

Lucie-Smith (1986) described the past fifty years in American crafts. The Works Progress Administration sponsored crafts activities throughout the Depression, and the United States armed services used crafts as a rehabilitative activity for servicemen wounded in World War II. Universities provided crafts education, crafts research, and a career in crafts that was not subject to the vagaries of the marketplace. When university growth slowed in the late 1960s, crafts moved out of that sheltered environment.

Several developments have allowed an increasing number of craftspeople, especially handweavers, to earn a portion of their living by selling handmade items. Markets for handcrafted items have become larger and more complex. Museums and galleries exhibit crafts as fine arts. Private collectors often commission craftspersons to create special pieces. A recent trend has been corporate patronage of the crafts. Architects and interior designers are increasingly turning to craftspeople to create unique "space modulators and activators of particular environments" (Lucie-Smith, 1986, p. 37).

Some craftspeople maintain a strong hobby-like interest in a craft for years, while earning a living from some other activity. Other craftspeople seek ways to earn their living

by pursuing a craft. Some craftspeople hold academic positions. This allows academicians to be active in the craft community, by teaching, writing and attending conferences (Lucie-Smith, 1986). Spaces in art galleries allow craftspeople to work as well as sell their products. The Torpedo Factory in Alexandria, Virginia and Unicorns and Butterflies in Roanoke, Virginia are examples of gallery/workshop operations. Some craftspeople choose to locate their businesses in their homes, thereby limiting some of the start-up expenses needed for operating a business.

Craftspeople market what they make in a variety of ways: (a) bartering, (b) selling at craft fairs, (c) selling to shops or galleries (d) displaying goods on commission in shops or galleries, (d) producing goods on special order, and (e) selling through mail order (Iatauro, 1989). In recent years, corporations have become major patrons of the crafts, sponsoring exhibitions and commissioning craftspeople for special works.

Professional associations formed by craftspeople are called guilds. Guilds encourage excellence in craft work in many ways: (a) sponsoring juried exhibitions, (b) organizing workshops to advance technical knowledge, (c) sponsoring philanthropic activities, (d) publishing newsletters which describe craft techniques, review new

products, and profile individual craftspeople, and (e) setting standards for product performance and labeling.

According to Smith (1986), there are two philosophies of craft education. The first was widely taught by the Bauhaus-trained faculty, and continues to be associated with the Bauhaus. This philosophy holds that the materials and methods of the craft are to be taught, and that the object should be in a form "unburdened by the dominantly individual traits of the planner" (Albers, 1965, p. 78). The second philosophy of education emerges from the Abstract Expressionist movement. This philosophy holds that the spontaneity and individuality of the artist are all-important. Any limitation is perceived to be a barrier to the freedom of the artist.

Crafts education is available in many forms: (a) informal, or relatively unstructured education from YMCA's, county recreation offices, or other adult education services; (b) workshops ranging in duration from a weekend to a summer; (c) books and videos; and (d) formal education. There are two sources of formal education: universities, or apprenticeships with active craftspeople. Many colleges and universities offer degree programs in crafts as a part of their art or design programs. Some allow the student to concentrate in one craft at the Bachelor, Master, or Doctoral level. Apprenticeships are less common, but still an important source of craft education.

## Handweavers

Textile items have always held a place of importance in human civilization. Historians theorize that weaving is one of the oldest crafts, as it is associated with the three basic needs: shelter, clothing, and food. The origins of weaving may date back 35,000 years, and the oldest surviving examples of woven fabrics pre-date written language (Held, 1973). Hollander (1978) stated:

Cloth is apparently something basic to civilization . . . . It has been a thriving commercial enterprise, a fully developed craft, and part of the seemingly natural substance of life for as long a time as bread . . . . The appeal to the eye inherent in the workings of fabric is apparently as old as cloth itself. Constant idealization by artists has helped train the eyes of the world to delight in it and create a desire to use it far beyond necessity (p. 1-2).

Textiles add warmth, color and cushioning to man's near environment. The tent is a building made of cloth, and ancient civilizations used cloth curtains to temporarily divide spaces and block light and air. Cloth hangings identified important ceremonial areas such as altars, thrones, and stages. Tapestries and textile wall hangings are an important form of artistic expression on every continent. Cloth wrapped around the human body provides shelter, warmth, and self-aggrandizement (Held, 1973; Hollander, 1978).

The Industrial Revolution began with remarkable innovations in the production of textiles, and demonstrated that the market for textiles was enormous. Handcrafts became associated with the decorative arts, gaining particular prominence at intervals. The Arts and Crafts movement of the late 19th century influenced popular taste and design with fine examples of hand-made textiles (Parry, 1988). In 1933, many of the faculty and students of the German Bauhaus School of Design migrated to the United States, influencing American craft for decades. Bauhaus-trained handweavers such as Anni Albers and Lili Blumenau designed for industry as well as handcrafting items (Held, 1973).

Albers (1965) defined handweaving as follows:

One of the most ancient crafts, hand weaving is a method of forming a pliable plane of threads by interlacing them rectangularly . . . . No longer of consequence as a manufacturing method in an industrial age, it concerns itself chiefly with fabrics for decorative use. Handweaving is . . . an art discipline able to convey understanding of the interaction between medium and process that results in form (p. 19-21).

Handweavers are persons who produce handwoven textile products. Textile items produced by handweavers are commonly used to adorn the person or the home. Unique garments, wall-hangings, curtains, table linens, bed-coverings, and decorative accessories for the home and the person are textile products of the handweaver. The

handweaver determines the method of construction and the materials to be used. The weaver plans the number of yarns per inch and the pattern of interlacings in the fabric. Handwoven textile items may be made from commercially spun and dyed yarns, greige yarns which are dyed by the artist, yarns spun and dyed by the artist, or by some combination of yarns made by these three methods.

Products that are "hand-loomed," that is, the warp yarns are set by hand but the loom is power-driven; or products that are knitted, knotted, or crocheted; baskets, or three-dimensional fiber sculpture made without a loom structure are not considered to be handwoven textile items (Albers, 1965; Black, 1988).

The Handweavers Guild of America (HGA) is the national guild for handweavers. According to information provided to potential advertisers by the HGA (1988a), the guild publication *Shuttle, Spindle and Dyepot* had over 15,000 readers, of which 98% were female. The average reader's age was 38, and average household income was over \$40,000. Over two-thirds (68%) of the readers were college graduates and/or had done some graduate work. Forty-two percent did not work outside the home and 29% worked part-time outside the home.

The Handweavers Guild of America (HGA, 1988a) conducted an informal survey of its membership along with membership renewal notices. Responses were returned by 1,789 members.

The weavers were grouped according to their self-reported expertise. At the beginning level were 295 weavers (16.5%), while 821 (45.9%) reported their expertise to be at the intermediate level. At the advanced level were 481 weavers (26.9%) and 179 (10%) were at the production level. Thirty-two percent (581) marketed their woven products. Apparently some weavers fill special orders and work on commission for interior designers but do not consider themselves to be "production weavers." The survey did not distinguish between weaving as an income-producing activity or as a hobby. Twenty-one percent, or 385, of the weavers reported that they were teachers, however, the survey did not ask what type of teacher. Respondents engaged in a variety of fiber activities: weaving 1,717, spinning 877, dyeing 809, basketry 504, felting 296, paper, 202, knitting 52, fabric/warp painting 15, lace 13, quilting, crochet and tapestry 10 each, sewing 8, and raising sheep/rabbits 3. The weavers reported interest in a variety of projects: clothing and wearables 71%, rugs 66%, wall hangings 49%, knitting 48%, furnishings 47%, accessories 42%, and tapestries 35%.

The Handweavers' Guild of America (1988a) survey is the only market research presently available on handweavers. While handweavers do not represent a large percentage of the American population, they do make up a large percentage of the population of craftspeople. Their products are visible

in public places, including major airports, corporate headquarters, museums, and art galleries. Handwoven items are shown in the pages of interior design and fashion magazines. Living history museums often include spinning and weaving in their craft programs because of great visitor interest. Handweavers experiment with fiber, dye, and yarn combinations that may influence industrial design. Handweavers also support a market for looms and craft yarns.

### **Craft Yarns**

Although Held (1973) asserted that "no material, regardless of its size, shape, composition, color or degree of rigidity, can be conclusively eliminated as a possibility for weaving," (p. 89) most weavers use common fiber types in common form to produce textile items. Yarn is a continuous strand of textile fibers or filaments in a form suitable for knitting, weaving or otherwise intertwining to form a textile fabric (ASTM, 1989, D 123). Craft yarns are those which are packaged in relatively small units so that they might be purchased by an individual and used for production on a small scale.

## Craft Yarn Market

It is difficult to determine the annual sales of craft yarn and also difficult to determine the type of craftspeople using the yarns. Many handweavers use the same yarns as are used by industry, buying cones of yarns in odd lots and mill ends (Redding, 1984). Some handweavers are "vertically integrated" from fiber to fabric. They raise fiber plants or animals, dye and spin yarns, and weave the yarns into cloth. Yarn retailers sell to the general craft market, thereby not differentiating between knitters and weavers. Therefore, weavers obtain yarns from many sources, and yarn retailers sell to many segments of the craft market.

The greater proportion of craft yarns used by handweavers are made from natural fibers which are considered to be luxury yarns. Wool, cotton, rayon, silk, linen, and mohair are the predominant fibers advertised in publications such as Shuttle, Spindle, and Dyepot; Handwoven; Threads; and Fiberarts. The luxury fibers require more conscientious attention to care and maintenance procedures in order to maintain their original appearance than do other fiber types (Harries & Harries, 1974).

A lesser proportion of the craft yarns used by handweavers are considered easy care and are made of such fibers as acrylic, nylon, or polyester. Many American

handknitters and crocheters use acrylic yarn because of easy care and nonallergenic properties. The National Handknitting Yarn Association reported that 80% of the hand knitting and hand crocheting yarns sold in America were made of synthetic fibers, primarily acrylic (FTC, 1978).

Handweavers attempt to produce unique effects using various techniques. These techniques include (a) dyeing their own yarns, using commercially available dyes or dye sources from nature with metal salts used as mordants (Bliss, 1981; Crews, 1981a, 1981b; Knutson, 1986); (b) combining yarns in a single piece, using different colors, yarn structures, and/or fibers (Emery, 1976); and (c) incorporating materials other than yarns. Garments or wall hangings may include feathers, shells, driftwood, leather, glass beads, or other decorative items (Emery, 1976; Held, 1973; Smith, 1986).

Members of the textile industry have attempted to define the size of the craft yarn market and identify the fibers that are used. However, it is not known what percentage of these craft yarns are used for handweaving. The International Wool Secretariat estimated that in 1982, the total retail value of handcraft yarns in the Western world was in excess of two billion dollars after a decade of general growth (Beckwith, 1984).

The Textile Economics Bureau (1988) includes a category for "Craft & Handwork Yarns" in the Textile Organon Annual

End Use Survey. In 1987, 80.8 million pounds of fibers were consumed in the craft and handwork end use category which included yarns used for knitting, embroidery, crocheting, needlepoint, and crewel.

While this information provides some indication of the value and volume of the market in craft yarns, it does not identify the value and volume of the yarns used by handweavers, nor the fiber types used by handweavers. It would be useful to know more about the fiber types and yarn structures that handweavers prefer because of the important relationship between fiber type, yarn structure, and care considerations.

### Information on Yarn Wrappers

Wrappers for craft yarns offer important information to the consumer for comparing products whose differences are not obvious to the senses. According to McClaskey (1989), consumers of craft yarns might find the following information on yarn wrappers: manufacturer's name and address; trade name of yarn; fiber content; lot and shade numbers; color name; weight in ounces or grams; gauge in stitches per inch, rows per inch, or needle size for home knitting; yarn grouping or classification; length; and care instructions. European yarns might also have the

international care symbols, weight and length in metric units, and colorfastness information.

There is no standardized format for wrappers on craft yarns in America, and no guidelines exist for information to be presented. However, efforts have been made to standardize wrapper information in three areas: care instructions, colorfastness, and yarn measurement.

### Standard units for measuring yarn.

The history of the units used to measure yarns parallels the history of standardization. In England before the 18th century, cities 20 miles apart had different standards for weight and length (Catling 1985a, 1985b). Today, global trade is carried out with just a handful of units of measurement. However, two problems remain. These problems are the persistence of indirect systems of measurement and lack of consistency.

Two common methods of giving a numerical value to the fineness or size of a yarn are the indirect and the direct systems. Cotton, worsted, and woolen count are indirect systems and measure fineness: the larger the number, the greater the length per unit of mass, and the finer the yarn. The denier and tex are direct systems that measure coarseness: the larger the number, the larger the yarn.

The Systeme International d'Unites (SI) introduced the tex system in 1960 with the improved and unified metric

system. By the early 1970s, SI units were being generally adopted by European manufacturers, but the tex system did not replace all previous systems for measuring fibers. Man-made fiber producers, especially American, continued to use the denier system to measure filaments. The indirect cotton count system is still used by companies in America, the Far East, and industrially-emerging countries. Mills in the United Kingdom continue to use the indirect woolen run and worsted count systems (Ford, 1985a; Pratt, 1989; Schlaeppli, 1984;).

While international trade is carried out in metric units, and industry may use direct systems of measurement for internal record keeping, craft yarns continue to be identified by archaic indirect systems. There are several common ways of packing craft yarns for sale: the skein, ball, hank, and cone. Sometimes yarn count and package weight are provided on yarn wrappers, but not yardage. In this case, a complicated series of calculations must be made by the user to determine yardage. Many charts exist for calculating yardage which can assist the craftsperson (Held, 1973; Lorant, 1984).

In addition, an imprecise set of descriptions is used to describe the weight of yarns. Common names for yarn weights are fingering, which is thin and light weight; sport, which is double the thickness of fingering; worsted, which is 3-4 times thicker than fingering; bulky, 6-8 times

thicker than fingering; and jumbo, which is extra bulky. Guidelines for combining yarns in a piece advise that yarns of different weights not be combined in a single piece (McClaskey, 1989).

### **Properties of Craft Yarns**

Albers (1965) stated that choosing materials which will interact successfully with structure to make a useful object is the essence of design: "Every fabric is mainly the result of two elements: the character of the fibers used in the thread construction . . . and the construction, or weave, itself" (p. 59).

There is no one fiber or yarn that is ideal for every purpose; no weave construction that will answer to every need; and no method of care that is perfect for every fiber or yarn. The weaver must have the intended use for the textile in mind when selecting the craft yarns and designing the product. For some end uses, certain properties are crucial, while other properties are merely peripheral.

### **Aesthetic and Performance Properties**

Aesthetic properties of craft yarns are those which appeal to the senses: sight, touch, sound (e.g. "scroop"), and smell. Performance properties of craft yarns are those which allow the product to endure unchanged in regular use

for a reasonable period of time. Therefore, the ability of a textile to retain aesthetic properties during regular use is a performance property.

Aesthetic properties are experienced subjectively. Extensive terminology has been used within the textile industry to describe the subjective experience of style, eye, body, cover, touch, surface texture, drape and resilience of textiles (Brand, 1964). Some aesthetic properties of textiles have been objectively measured and quantified for many years: for example, color or yarn hairiness (Fortess, 1985a, 1985b; Stearn, D'Arcy, Postle, & Mahar 1988a, 1988b).

### **Servicability**

Hollen, Saddler, Langford, and Kadolph (1988) define durability in a relative sense: "A durable textile product should last an adequate period of time for its end use" (p. 12). Joseph (1986) explained

Durability is defined as the ability to last or endure, . . . in any given state without deterioration or destruction. Consumers in general do not wish to have fabrics last a lifetime, . . . [so] fabric durability is considered to be the ability to retain properties and characteristics for a reasonable period of time (p. 363).

Harries and Harries (1974) differentiate between durability, and servicability. Durability might be measured objectively in a laboratory as the sum of tenacity, abrasion resistance,

cohesiveness, elongation, elastic recovery, flexibility, and dimensional stability. Servicability is a subjective measure of general consumer satisfaction with the performance of the textile in a specific end use. Because the elements of durability vary widely, and the requirements of end uses vary widely, it is most important that the durability of a textile item be matched to its end use in order that the user may be satisfied with the servicability of the item. A lower absolute level of durability may be appropriate for servicability requirements.

The properties of a textile product, including care considerations, are directly related to the fiber properties, modified by yarn and fabric structure (Corbman, 1983; Harries & Harries, 1974; Hochberg, 1982; Hollen, Saddler, Langford & Kadolph, 1988; Joseph, 1986; Lewis, 1966; Lorant, 1984; Redding, 1984). The contribution of fibers will be discussed first, then yarn structure, and lastly fabric structure.

### Fiber properties.

Lewis (1966) described the contributions made by the various elements of the fabric thus:

The inherent physical properties of the different fibers seem to be the greatest determinants in the tensile properties of the filaments, yarns, and fabrics. The variables of yarn twist, weave stresses and strains on the yarns and fabrics were apparently small contributors (p. 99).

Hunter, Smuts, and Gee (1983) reported the results of a decade-long study of the effect of wool fiber properties on woven and knitted fabric properties. It was found that drape and flexural rigidity were functions of fiber diameter; abrasion resistance and resistance to pilling were related to fiber diameter and fiber length; while bursting strength, air permeability, and hygral expansion were related to fiber diameter, length, and crimp. Fiber diameter accounted for 39% of the variance in the fabrics; fiber length accounted for 7.4%; crimp accounted for 5.2%; and fabric mass and thickness respectively accounted for 13% and 10% of the variance in fabric properties.

### Yarn properties.

Properties of craft yarns result from fiber properties, degree and variation of twist, length of staple, surface effects, and number of plies. Aesthetic and performance properties interact to form the character of a craft yarn.

Soft twist yarns are fluffy and bulky. They have less tenacity, but greater loft and absorbency because there is more surface area and space between the fibers than in a hard yarn. In a hard yarn, the fibers are compacted and adhere together. This gives the yarn greater tenacity but less elongation. The hand is more rigid, but the yarn has more luster because of the smooth surface. Worsted wool or combed cotton, where the staple fibers are the same length, are often given a hard twist. Slub, thick and thin, and handspun craft yarns have areas of differential twist. This gives the properties of both high and low twist. Novelty yarns, which have unlike parts combined at intervals, provide surface effect. Novelty constructions such as loops, knots, slubs, and corkscrews may snag, and those parts which protrude from the surface of the fabric are exposed to more abrasion. By plying two or more singles yarns, greater strength is obtained (Harries & Harries, 1974; Hollen, Saddler, Langford & Kadolph, 1988; Lorant, 1984; Redding, 1984). Ly (1983) reported that the rigidity of a yarn doubled when it was plied, due to interfiber friction. However, the "presence of cross yarns in plain weave fabric only increases the fabric bending rigidity by approximately 10%" (p. 205).

The Textile Fibers Department of E.I. du Pont Nemours Co. (no date) cited five observations based on their association with the craft yarn industry:

Women want the articles they make to be good-looking. Women want them to stay good-looking even after many washings. Women want them to hold their shape, not to shrink or stretch, not to pill excessively. Women prefer easy care benefits inherent in the yarns . . . . The most meaningful indicators of a quality hand craft yarn are elongation/recovery, bulk, and resiliency [*italics in original*](p. 10 ).

These yarn properties emerge from fiber properties, although twist and ply contribute to quality and performance as well.

Yarn properties have different importance for different end uses. Performance requirements vary within a single textile item. Since warp yarns endure more stress than weft yarns during the weaving process, warp yarns should possess high tenacity and abrasion resistance to withstand the mechanical actions of the harness, reed, and shuttle. As Hochberg (1982) stated, "Ignoring this property [abrasion resistance] can cause handweaving to look shabby after limited use" (p. 72). Strength is not a problem, according to Hochberg: "All commonly used textile fibers are strong enough to fill the needs of handweavers. The stresses and strains that industry imposes on fibers are far greater than those which can occur during handweaving" (p. 73).

### **Fabric structure.**

In designing a handwoven textile item, the handweaver must integrate the fiber, yarn and fabric structure. The number of yarns per inch and the weaving pattern are factors affecting the properties of the finished textile item. The fabric weave influences performance properties in two ways: (a) number of interlacings, and (b) amount of yarn exposed on the surface. Interlacings contribute to strength of the fabric, therefore, a greater number of interlacings makes a firmer fabric with less slippage at points of strain. Weaving patterns determine how much yarn is exposed on the surface. When a filling yarn passes over several adjacent warp yarns, the result is a float. Fewer, or shorter floats contribute to abrasion resistance, a factor in durability. Many long floats, as in twill or satin weaves, may wear or snag (Corbman, 1983; Harries & Harries, 1974; Hochberg, 1982; Hollen, Saddler, Langford & Kadolph, 1988; Joseph, 1986; Lewis, 1966; Lorant, 1984; Redding, 1984).

### **Colorfastness.**

Colorfastness is a performance property which is recognized as important for handweavers. Although color is an aesthetic property, the ability of a textile item to retain its color during regular use is a performance property.

Textiles may be dyed during any of four stages: (a) fiber, (b) yarn, (c) fabric, and (d) finished product. Handspinners often dye at the fiber stage in order to blend colors into a yarn. Many handweavers, frustrated by insufficient color ranges available in commercial yarns, often purchase greige yarns and dye them with commercial or natural dyes. Although it is less common for handweavers to apply dye at the fabric stage because the effects are less subtle, some do. If fibers with differential affinity for dyes are blended together, the resulting dyed effects could be striking. In addition, resist dyeing may be used to give an all-over design to fabric or a finished garment. Painting, printing, and tie-dyeing of finished products are other techniques that handweavers may use.

A handweaver who uses natural or commercial dyes assumes responsibility for the performance of the dye in the finished item. Natural dye sources vary considerably depending on whether the plant grew in sunshine or shade, fertility of the soil, time of year, mordant used, or many other variables (Bliss, 1984; Held, 1973; Knutson, 1986). Manufacturers of commercial dyes do not include any warranty or guarantee since the manufacturer of the dye cannot control the conditions under which the dye may be applied.

It is generally recognized that color is the feature most consumers use in selecting textile goods. In many cases, handwoven textiles are constructed around aesthetic

principles of color and texture. Valued characteristics of such items would be the unique combinations of color and texture. Dyes used on textiles may perform satisfactorily or unsatisfactorily independent of the performance of the textile itself. If dyes fade, or change color, wash out, or migrate and stain adjacent areas, then valued characteristics are gone and the item no longer provides satisfaction even though there may be years of wear left in the fabric.

Crews (1981b) wrote:

Lightfastness is of paramount importance to textiles such as wall hangings, rugs and casements installed in public buildings and exposed to sunlight and artificial light on an almost continual basis. Artists with such commissions should select their dyes and mordants carefully . . . . Color is one of the most important aspects of an artistic statement and as artists we cannot or should not be willing to accept the loss of that. Our clients will not be satisfied if the work suffers dramatic color loss in a relatively short time (p. 58).

It has been demonstrated that handweavers have many end uses for the craft yarns they buy (HGA, 1988a), and that yarns are colorfast under different conditions (Higginbotham, 1972). The end use of a yarn determines the extent to which it must resist fading from light, laundering, or dye migration. A wall hanging might never be laundered, but may be exposed to strong sunlight. Table linens might be exposed to sunlight, and also exposed to frequent machine laundering to remove food stains. Yarns in

an evening stole need to be resistant to drycleaning solvents so that dyes do not run and stain adjacent areas, but lightfastness would not be as important. Handweavers may need to know under what conditions the craft yarns are colorfast.

In reference to wrappers of craft yarns used for handweaving, Bliss (1984) wrote:

And I, for one, want to applaud those manufacturers (the Scandinavians seem to be leading the way) who are now indicating the lightfastness ratings on their labels along with detailed washing/ cleaning recommendations. Perhaps a few words of encouragement to domestic manufacturers would spur them to assist us in determining the degree of fastness from the yarns we purchase from them (p. 17).

Manufacturers, the fabric care industry, and handweavers recognize that dyes used to give textiles their color are not fast under all conditions. Steiniger (1970) reported that fading, discoloration, whitening on creases and folds, and colors that run made up 12% of the consumers' problems with clothing and linens, and 11% of consumers' problems with home furnishings.

The Thread Institute (1986), a national trade association, has developed a set of voluntary guidelines for rating colorfastness in threads within the apparel industry. Colorfastness is defined by the Thread Institute as ability to retain color when exposed to light, rubbing, or other color destroying conditions. In the past, an "imprecise

system of terms and descriptions" had been used. The Thread Institute conducted a broad review of all aspects of colorfastness to standardize quality descriptions. Quantitative ratings established by the American Association of Textile Chemists and Colorists (AATCC) and the American Society for Testing and Materials (ASTM) were accepted as standards for comparison.

The International Fabricare Institute analyzes damaged textiles and determines causes of drycleaning failure. Responsibility for failure has been found to lie with consumers, manufacturers, drycleaners, or unknown causes. In 1988, 20% of 18,904 drycleaning failures for which manufacturers were responsible were caused by dyes that were soluble in drycleaning solvents, and 15% were caused by dyes that were soluble in water. Color loss due to fading from sun, fumes, or miscellaneous sources caused 11% of drycleaning failures. These three categories, along with shrinkage (12%) made up the top four causes of drycleaning failures for which manufacturers were responsible. The largest category (20.3%) of 6,723 failures for which drycleaners were responsible was color loss in spotting and stain removing (Fortess, 1988; Moreland, 1989).

While consumers may buy textiles for their aesthetic appeal, performance properties of textiles have importance for consumers in the long run. Steiniger (1970) made an analysis of consumers' textile complaints and found that 67%

of problems listed by 279 subjects for clothing and home furnishings textiles were with uneven wear and durability. The second largest number of complaints (15%) concerned color change. Powers (1984) reported that durability was the most important factor that subjects (n = 200) considered when shopping for new carpets and upholstered furniture, and color was the second most important.

Hatch and Roberts (1985) studied consumers' use of intrinsic and extrinsic cues to assess textile product quality. Fiber content, yarn and fabric structure, and garment construction were used as examples of intrinsic information. Brand name, store name, price, and real and fictitious seals of certification were used as extrinsic cues. To test effects of previous product knowledge, 40 home economics teachers and extension agents evaluated socks and sweaters for quality and responded to a questionnaire. Ninety-five percent of the subjects reported that fiber content was important information for judging quality. Subjects' judgment of unidimensional aspects of quality, such as resistance to pilling, or warmth/coolness was made on the basis of visual examination and subjects' own knowledge. This confirmed that expert consumers rely on intrinsic attributes rather than extrinsic cues to judge quality.

Ayres, Carpenter, Densmore, Ryan, Swanson and Whitlock (1963) interviewed 1,027 people regarding characteristics of

their favorite and least-liked garments. Comfort, becomingness, and good appearance were cited most often as characteristics of favorite garments. Subjects mentioned fiber and color as elements that contributed most to comfort and appearance.

### **Care Considerations**

A textile item possesses certain valued characteristics when it is new, and proper care procedures can maintain those characteristics for the useful life of the item. Textile items, other than inexpensive disposable products, are generally considered to be durable goods. Durable goods provide a flow of services and satisfaction over a period of time, while nondurables are entirely consumed after one or a few uses. Care and maintenance are required for durable goods while held in inventory in order for the flow of service and satisfaction to continue (Winakor, 1969).

Harries and Harries (1974) defined "care" as any activity that is intended to maintain the original appearance of a textile item. Harries and Harries included storage as a form of care because textiles are exposed to fumes, radiation, humidity, insects, micro-organisms, and physical stresses, even when they are at rest. Critz (1975) stressed that it is also important to maintain nonvisible

functional properties such as strength, fire resistance, and water resistance.

End use of a textile item will influence wear, soil, and environmental conditions that cause it to require refurbishment. Home furnishing textile items, such as wallhangings and table linens, have different requirements for care procedures than do items that are to be worn. Fiber(s), yarn structure(s), fabric structure(s), and the construction of a finished product all influence the method of refurbishment needed.

Arbaugh (1974) identified times when care considerations were of interest to consumers. Care considerations arise when purchase decisions are made; during wear or use of an item; and when choosing procedures necessary for laundering, drycleaning, or stain removal; or when making preparations for storage.

Since handwoven items also require care, care considerations are important when handweavers design items and select craft yarns and other components that will be used. Thus, care information on yarn wrappers precede any care information that ultimate consumers will receive.

**Sources of Care Information**  
**for Handweavers**

Busch and Houston (1985) divided sources of information into two categories, marketer dominated and nonmarketer dominated. Marketer dominated sources of information include personal sources, such as sales personnel or representatives of the drycleaning or yarn industry, and nonpersonal sources, such as advertising and point of sale information. Nonmarketer dominated sources of information are individuals and organizations who do not profit from the marketing of products. A nonmarketer dominated personal source of information might be a friend or opinion leader, or other users of the product. Nonpersonal, nonmarketer dominated sources of information include impartial news media, noncommercial organizations, government agencies, and impartial product testing laboratories.

There are many sources of information for care recommendations for handweavers. Books on fibers, craft yarns, and weaving; magazines oriented towards fiber craftspeople; literature from textile trade associations, the drycleaning industry, and detergent manufacturers; formal and informal education; and intuition based on experience are sources for care information generally available to handweavers. Weavers, spinners and dyers may identify through systematic testing and record keeping

preferred care procedures for the textile items they produce (Knutson, 1986). Some handweavers maintain a record of dyes, fibers, yarns and fabric structures, and save labels and wrappers from commercial products they have used. Using this product information, care procedures may be developed and tested methodically on prototypes.

When a weaver removes a finished piece from the loom, it is recommended that the piece be either washed or drycleaned. According to Held (1973) this procedure

. . . removes any soil that may have accumulated during the weaving process . . . binds the yarns together, improves the hand or feel of the fibers, and preshrinks the fabric [*italics in original*] (p. 186).

Thus, weavers wash handwoven textile items for the first time. Care methods best suited for fabrics can be tested, excess dyes can be removed, and potential problems can be identified by handweavers before pieces are sold.

In the HGA (1988a) survey 1,789 weavers indicated their interest in categories of articles published in Shuttle, Spindle, and Dyepot. Only 12 weavers indicated interest in articles about yarns/fiber. Why did only 12 weavers out of 1,789 express interest in articles about fibers and yarn? The following may begin to answer the question. Perhaps weavers, as artists, feel that no one could summarize in writing qualities they see and feel in craft yarns. They may consider their prior knowledge sufficient. Yarns reviewed or advertised in publications may be unavailable in

some regions, or too expensive to purchase. Information available at point of sale, including sales assistance and wrapper information, may be enough for most weavers.

### Labeling Legislation.

The fiber identification statement for a textile product such as yarn need only be durable enough to remain attached to the textile product "through any distribution, sale, resale and until sold and delivered to the ultimate consumer" (16 C.F.R. 303.15). On the other hand, the Federal Trade Commission (FTC, 1984a) defines a care label for apparel as

. . . a permanent label or tag, containing regular care information and instructions, that is attached or affixed in such a manner that it will not become separated from the product and will remain legible during the useful life of the product (16 C.F.R. 423.1).

Wrappers on packages of yarn might fulfill requirements of the Textile Fiber Products Identification Act (TFPIA) but not of the Care Labeling Rule for apparel. A wrapper must convey fiber identification only until the point of sale, while a care label must be available at the point of care for the garment whenever and wherever that may be.

There are two arguments for having care information available at point of care. First, even if the consumer kept a wrapper or a paper hangtag, it would not be available for reference in a laundromat or at the drycleaners.

Second, it is increasingly common for family members other than the wife/mother to help with laundry tasks (Powers, 1984). Even if the owner of an unlabeled textile item were aware that it required special handling, other family members might not provide that special handling without care information.

Fiber content information is required by law on packages of yarn sold at retail. Under the Textile Fiber Products Identification Act (FTC, 1986) "all fibers, yarns and fabrics" are to have a conspicuous label giving the generic names of all fibers present in the amount of 5% or more of the total weight (16 C.F.R. 303.6).

Care information on packages of craft yarns is not required by law in the U.S., although the staff of the Federal Trade Commission considered the possibility when the Care Labeling Rule 16 C.F.R. 423 was amended (FTC, 1978). Items made from yarns by consumers require "regular care" as opposed to spot cleaning for their ordinary use and enjoyment and consumers suffer economic injury when they use improper care methods, losing money and time spent making the item.

The members of the National Handknitting Yarn Association argued against a care label requirement for craft yarns. Two reasons given were: (a) members of the NHYA voluntarily printed care instructions on the wrapper of yarn packages. The Federal Trade Commission found that

examples of care instructions were "surprisingly explicit" (FTC 1978, p. 15); and (b) care labels included with the package of yarn would not necessarily apply to finished products. The NHYA provided three arguments to support this: (1) care instructions might apply to garments made from the yarn, but consumers could make rugs or wall hangings from the yarn, and the same care instructions might not apply; (2) the looseness or tightness of construction in the finished item could influence its durability; and (3) consumers often blend many yarns in a single item, and the care instructions might conflict. For these reasons, the NHYA argued that requiring care labels to be included in packages of craft yarn for permanent attachment by consumers to items made from the yarn would generate "erroneous assumptions at the point of care that such instructions apply to the finished product" (FTC 1978, p. 199).

The International Fabricare Institute, representing drycleaners, argued that a label to attach to the finished item in addition to the printed wrapper could prevent damage from occurring during drycleaning. This damage injures drycleaners who are independent businesspeople. The staff of the Federal Trade Commission supported the idea of a permanent label to be included with a package of yarn, however this was not included in the Care Labeling Rule 16 C.F.R. 423 as amended.

Although not required by law, most American craft yarns do include care information on the wrapper (McClaskey, 1989). Under guidelines in the 1984 version of the Care Labeling Rule, the label does not have to list every alternative procedure. "If either washing or drycleaning can be used on the product, the label need have only one of these instructions" (16 C.F.R. 423.6[b]). This has two important implications. First, the label does not have to warn against care procedures that are not described on it. Thus, if there are full instructions for laundering, the label need not warn against drycleaning even though that procedure might cause harm. Second, the label does not have to describe all possible methods of cleaning the product. The care recommendation on the package of yarn might say "Dryclean," even though the fibers and dyes can safely be hand-washed in cold water (Johnson, 1984).

The Federal Trade Commission felt that drycleaning garments imposed a financial burden on consumers. Therefore, the instruction "Dryclean only" may be used only when there is reasonable basis to demonstrate that the garment cannot safely be washed (Federal Trade Commission, 1984b).

The Federal Trade Commission (FTC, 1978) defined low labeling as "use of extraordinarily cautious instructions when they are not, in fact, needed" (p. 14). Fortess (1988) contended that

. . . manufacturers have the erroneous judgement that drycleaning is likely to be less destructive than laundering and so put a "Dry-Clean" instruction on a garment when hand washing would have been less destructive (p. 152).

This causes economic injury when consumers spend money on unnecessary drycleaning. Also, when consumers find that they can successfully handwash an item labeled "Dryclean," they subsequently discredit other labels, perhaps causing damage to items that should be drycleaned.

Under the 1984 revision of the Federal Trade Commission's Trade Regulation Rule on care labeling, terms are defined in a glossary (Appendix A to 16 C.F.R. 423). The glossary includes temperature settings, which are the same as those used in standard test methods. Consistent terminology means that standard test methods are directly relevant to the final care label (FTC, 1984c). This terminology is consistent with ASTM D 123 (ASTM, 1989). The American Apparel Manufacturers Association makes available a summary of standard terminology to its members (AAMA, 1987). The International Fabricare Institute makes available a pamphlet for member drycleaners to share with customers (IFI, 1988). Thus, the standard terminology is widely available.

In addition to providing precise terminology the Care Labeling Rule requires that "a manufacturer or importer must establish a reasonable basis for care information" (16 CFR

423.6 [c])). This may be reliable evidence that the product was not harmed when cleaned according to the care instructions given, or that a sample of the product was tested, or that industry expertise or literature supports the care information (Crumpler, 1984).

The Federal Trade Commission interpreted Care Labeling Rule 16 C.F.R. 423 to mean that the party that performs the last operation on a garment before it is sold becomes the manufacturer of the garment, and assumes responsibility for the care label. Any garment sold to the public is covered by Rule 16 C.F.R. 423. The Federal Trade Commission, in general, would allow formal exemptions when the garment would be clearly impaired by having a label attached to it. Hand decorations and hand crafts make up a growing sector of the garment market, however the volume of trade is not sufficient to demand intervention by Federal Trade Commission staff (Stephen Ecklund, Federal Trade Investigator of the Federal Trade Commission, personal communication, July 12, 1989).

Craft yarns from Europe have the International Care Symbols as well as the fiber content on the wrapper (Beath, 1979; Ford, 1986; Ford, 1987; Taylor, 1977). In Britain, every box of laundry detergent bears an explanation of the symbols, but comprehension of the symbols is not widespread (Arstall et al. 1978). The International Organization for Standardization (ISO) and the International Care Labelling

Symposium (GINETEX) work to simplify the symbolic representations so as to make the care instructions clear, and to develop test methods that relate closely to cleaning methods in order to develop standards of performance. The International Care Symbols will be required when the European Economic Community (EEC) drops internal trade barriers in 1992. If American yarn producers wish to sell craft yarns within the EEC, they would be well advised to include the International Care Symbols and metric equivalents on yarn wrappers (Spivak, 1989; Stern, 1989).

There are several important ideas that must be linked directly to handweavers. Under the staff interpretation of Care Labeling Rule 16 C.F.R. 423, the handweaver of a garment is assigned responsibility as the manufacturer of the garment when it is sold. Methods of construction can influence the performance of textiles, as well as the yarns and fibers used. Craft yarns are not covered by Care Labeling Rule 16 C.F.R. 423. However, if the manufacturer followed the guidelines of the Care Labeling Rule in developing the care instructions on the wrapper of the yarn, the wrapper need only describe one method for cleaning the yarn, and need not warn against methods not described on the wrapper (Federal Trade Commission, 1984c).

Textile items may be damaged or ruined, their useful life shortened, and valued characteristics lost due to improper care procedures. Handwoven textile items require

conscientious care for two reasons: (a) natural fiber craft yarns are used most often by handweavers, and (b) handwoven fabrics have a relatively low yarn count. The gentlest care procedures are preferred. Although some must be drycleaned, most are hand washed with minimal agitation at low temperatures and drip-dried or dried flat (Gibbons, 1972).

#### Use of care labels.

In clothing and textiles, much research has focused on the use of care labels by consumers. Research has been done to determine how much consumers value care labels, whether they understand the language or symbols on care labels, and whether they follow the instructions on care labels. Previous research has revealed that (a) consumers use care labels to avoid purchasing items that require special handling such as drycleaning, handwashing, drip- or flat-drying; (b) a significant number of consumers do not follow care instructions for items that require special handling, taking the risk of damage; and (c) consumers do not begrudge the extra cost or time spent in special handling for favorite textile items (Ashworth, 1978; Ayres, et al., 1963; Brokaw, 1988; Critz, 1975; Miller, 1978; Powers, 1984).

Textile care professionals as well as expert consumers have difficulty with care procedures. The International

Fabricare Institute found that of the garments damaged due to drycleaner fault, 19.7% were damaged by the drycleaners' failure to follow the instructions on the care label (Moreland, 1989). Relatively sophisticated consumers of textiles, homesewers and needlecrafters are often unable to determine fiber type, or identify care procedures for piece goods or craft yarns, from a visual inspection. An expert witness to the Federal Trade Commission stated that with ten years of teaching textiles and clothing construction, she could not always identify fiber types or care procedures for new fabrics. The staff of the Federal Trade Commission remarked:

Inherent in this argument is the assumption that recognition of the fiber will be sufficient to suggest an appropriate method of care to a consumer, although evidence throughout the record shows not only that consumers and others are unable to identify fiber types on visual inspection alone, but that they often do not know the appropriate care for a particular yarn or fabric in the absence of instructions (FTC, 1978, p. 200)

The staff of Good Housekeeping magazine conducted interviews in 200 households for the American Association of Textile Chemists and Colorists (Powers, 1984) to determine the way consumers feel about textiles in their homes. Subjects were much more comfortable talking about color than about fiber content for everything except clothing. Over two-thirds [sic] felt they could name the fiber content of at least half of their clothes without checking the label.

One fourth (25%) did not know what fiber their carpet or sofa upholstery was made of, and 43% could not identify the fiber their drapes were made of. Eighty-four percent of the subjects used care labels to determine whether they wanted to buy an item of clothing. Three-fourths (75%) used the care label to avoid dryclean only items, and usually sought items that were machine washable and dryable. Nearly 90% referred to care labels for first-time laundering, but for later laundering, only 12% always referred to the care label, while 30% sometimes did and 57% seldom or never referred to the care label. The subjects reported that they would wash an item marked "dryclean only" and bleach an item marked "no bleach", with a "success rate of two out of three" [sic]. In addition,

. . . laundering was a favorite household task when all went well, but a dreaded and disliked task when the clothing needed special handling.

. . . Separate washings for items not colorfast was another task mentioned as being resented. . . . The great majority of women look for garments that can be dried in the dryer, as the ownership and use of dryers increases, and the clothesline has become an endangered species. Women resent being required to drip-dry, hang to dry, and especially to dry flat, with space at a premium for any such activity (p.23-24).

Robb (1968) reported that 67% of 60 subjects kept, read and used hangtags as long as they had the textile item. Critz (1975) reported that a majority of 393 subjects (69.2%) always used care labels, and 22.9% used care labels sometimes. When the label read "Dry Clean Only," 59.5%

reported that they would not wash the item at home, while 40.5% reported they would wash the item at home.

Ayres et al. (1963) interviewed 1,027 people regarding characteristics of their favorite and least-liked garments. Durability and ease-of-care were least related to general satisfaction with a garment. However, for those subjects who were pleased with the ease-of-care of a favorite garment, 27% reported that the garment was drycleaned, and 26% reported that the garment needed special handling. Thus, favorite garments received preferential treatment.

Baker and Laughlin (1986) studied consumers' expressed needs and preferences for care labelling for upholstered furniture. Ninety-four percent of the consumers felt that written care information should be included with upholstered furniture, and 71% felt that fiber content information should also be available. One-third of the consumers who had recently purchased upholstered furniture had not received any care or fiber content information. The researchers concluded that "Consumers seem to want as much care information as possible. This is not surprising considering many consumers may be unfamiliar with appropriate care procedures for upholstered furniture" (p. 283).

## Summary

In the Review of Literature, the following topics have been addressed: (a) enduring product involvement and consumer information processing, (b) handcraftspeople, (c) properties of craft yarns and (d) care considerations for handwoven textile items.

For consumers in general, enduring product involvement is a motivating variable that increases all aspects of information processing: (a) attributes of the product are considered important; (b) information seeking behaviors are intrinsically motivated and rewarded, and therefore frequent; (c) concepts are linked by high level associations; and (d) concepts are systematically applied in usage situations.

Handweavers produce decorative textile items for the home and person. Market research by the Handweavers' Guild of America (1988a) showed that on the average, handweavers were female, affluent, well educated, and in their late 30's. Little is known about the proportion of handweavers who earn some part of their income from the sale of handwoven items, or the span of years that handweavers pursue their craft.

In order to produce unique design features, handweavers determine the number of yarns per inch and the pattern of interlacing. Handwoven textile items may be made from any

combination of commercially dyed and spun yarns, greige yarns which are dyed by the artist, and/or yarns spun and dyed by the artist. In addition, other materials such as leather, shells, or beads, may be included. Little is known of the attributes of craft yarns that handweavers deem of most importance. If handweavers are expert consumers of craft yarns, their perceptions of product quality may be quite sophisticated. They may evaluate performance and aesthetic properties to determine overall servicability.

A textile item possesses certain valued characteristics when it is new, and proper care procedures can maintain those characteristics for the useful life of the item. Care considerations are important when handweavers design items and select craft yarns and other components that will be used. The bases for care instructions for the finished item would probably include wrappers from yarns that were used. However, wrappers may not be useful to handweavers for the following reasons: (a) wrappers may not contain care information, (b) information on wrappers from different yarns used in the garment may conflict, (c) handweavers may suspect that care instructions contain low labelling and choose to disregard them, and, (d) handweavers may have modified yarns by dyeing them.

The Federal Trade Commission Trade Regulation Rule 16 C.F.R. 423 requires that any garment sold to the public must have a permanently attached care label. This includes garments that have been handwoven. Little is known as to handweavers' awareness of this law.

**CHAPTER III**  
**STATEMENT OF PROBLEM**

This study investigated the relative importance handweavers place on attributes of craft yarns, sources of information used by handweavers to learn about craft yarns, and methods used by handweavers to communicate information about handwoven textiles to ultimate consumers. In addition, the extent of the sample group of handweavers' knowledge of Federal Trade Commission TRR 16 C.F.R. 423 on care labeling for garments was examined. Finally, information processing behaviors drawn from the theory of enduring product involvement were examined.

There are four purposes of this research: (a) to examine handweavers' perceptions of the attributes of craft yarns; (b) to determine if a problem exists in regards to handweavers' knowledge of Federal care labeling laws; (c) to add to the empirical literature using the theory of enduring product involvement; and (d) to provide demographic information on handweavers.

This chapter is divided into six sections: (1) objectives; (2) a conceptual framework for the research; (3) discussion of major concepts followed by working definitions; (4) hypotheses; (5) limitations of the study; and (6) assumptions.

## Objectives

Four specific objectives were developed to accomplish the purposes of the research:

1. Determine the importance to handweavers of selected attributes for craft yarns, the frequency with which handweavers seek out selected sources of care information, and the frequency with which handweavers use various methods to communicate care methods to purchasers of handwoven textiles.
2. Investigate handweavers' knowledge of the Federal Trade Commission's Trade Regulation Rule 16 C.F.R. 423 which indicates care labeling requirements for garments which are sold.
3. Examine the relationship between handweavers' enduring product involvement with craft yarns and information processing variables.
4. Determine if a difference exists between the importance handweavers place on performance properties and aesthetic properties for craft yarns.

## Conceptual Framework

Consumer information processing theorists regard involvement as an intrinsic motivator for the consumer decision process (Busch & Houston, 1985; Engel, Blackwell & Miniard, 1986; Kassarian & Robertson 1986). Applying the theory of enduring product involvement to handweavers' use of craft yarns identifies important information processing variables, and predicts a relationship between those variables. Theory suggests that artists and craftspeople have high involvement with the materials of their craft (Csikszentmihalyi & Rochberg-Halton, 1981; Harrison, 1978; Mills, 1951; Roberts, Scammon & Schouten, 1988). If handweavers were involved with craft yarns, they would consider attributes of craft yarns important (Johnson & Russo, 1984). Information seeking behaviors about craft yarns would be intrinsically motivated and rewarded, and therefore frequent (Bloch, 1982). Concepts about craft yarns would be linked by high level associations and systematically applied in usage situations (Alba, 1983).

### Enduring Product Involvement

For the purposes of this research, four aspects of enduring product involvement were considered (Figure 1): (a) long-term, cross-situational perception of product importance based on the strength of the product's relationship to an individual's central values (Bloch & Richin, 1983); (b) hedonic value an individual places on the product (Laurent & Kapferer, 1985); (c) an individual's self-reported expertise (Zaichkowsky, 1985); and (d) two types of product-related activities in which an individual engages: the range of related activities (Bloch & Bruce, 1984), and the range of specialized activities (Bloch & Richins, 1983). Centrality to ego-identity (a) is considered the key determinant of enduring product involvement.

### Information Seeking Behaviors

In consumer decision-making theory, efforts to learn about product attributes must be specifically directed, purposeful, and active in order to qualify as information-seeking behaviors. Enduring product involvement provides both intrinsic motivation and intrinsic rewards, therefore information seeking occurs more frequently. Product

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Centrality to Ego-Identity

Hedonic Value

Self-Reported Expertise

Interests and Activities

    Range of Related Activities

    Specialized Fiber-Art Interests and Activities

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FIGURE 1

ELEMENTS OF ENDURING PRODUCT INVOLVEMENT

information requires an expenditure of resources to obtain, and an effort to process. Many expert consumers rely most on the knowledge they have stored in their own memories, making only a minimal effort to obtain new information. This is consistent with the inverted U information-seeking curve.

Sources of information that might be consulted were obtained from literature and from interviews with those who are active in the field. A common taxonomy of sources of information (Busch & Houston, 1985) divides sources of information into marketer and nonmarketer dominated, each of which may be personal or nonpersonal.

### **Yarn attributes**

A product can be thought of as a collection of characteristics that satisfies the preferences of the consumer (Lancaster, 1971). Any dimension of the product taken into account by consumers in making purchase decisions may be considered an attribute. Some attributes may be essential to one consumer and incidental to another. Attributes may be extrinsic to the product, such as price, availability, or dealer reputation, or they may be intrinsic. Intrinsic attributes are those which emerge from the physical structure of the product and are referred to as properties.

Properties may be highly abstract and impossible to evaluate with single measures, or they may be simple and easily tested. Each property is present to some degree somewhere along its possible continuum. Some properties are independent of each other, some are mutually exclusive of each other, and others are dependent on each other (Seiben, 1988). Thus, a yarn may be blue and highly resistant to abrasion, but it cannot be very loosely spun and highly resistant to abrasion. Because craft yarns possess complex combinations of properties, the handweaver must balance properties in order to select the yarn that best matches the particular end use.

### Aesthetic properties

Aesthetic properties of craft yarns are those which appeal to the senses, especially the visual and tactile. Handweavers derive satisfaction from a complex array of aesthetic cues, and from the freedom and flexibility of being able to experiment with new combinations or techniques. They create an image which takes on color, form, and texture as yarns are interlaced.

By common definition, aesthetic properties of textiles include yarn color and color combinations, luster, texture, drape, hand and surface texture (Brand, 1964; Corbman, 1983; Harries & Harries, 1974; Hochberg, 1982; Hollen, Saddler,

Langford & Kadolph, 1988; Joseph, 1986; Lewis, 1966; Lorant, 1984; Redding, 1984). These properties make up the visual and tactile appeal of textiles. However, the ability of a textile to retain aesthetic properties during regular use is a performance property.

### **Performance properties**

Performance properties of craft yarns are those which allow the product to endure unchanged in regular use for a reasonable period of time. Durability, as a performance property, might be measured objectively in a laboratory as the sum of tenacity, abrasion resistance, cohesiveness, elongation, elastic recovery, flexibility, and dimensional stability (Harries & Harries, 1974).

### **Servicability.**

If handweavers showed enduring product involvement with craft yarns, concepts about craft yarns would be linked by high level associations, and systematically applied in usage situations. Servicability is a concept that relates the performance properties to the end use (Harries and Harries, 1974). Therefore, servicability would be an area of interest to handweavers. It has been established that the

products of handweavers are largely decorative (Albers, 1965), and that their products are chiefly used to decorate the person or to decorate interior spaces such as in the home (HGA, 1988a). Since a large portion of the appeal of handwoven textile items is the combination of color and texture that the handweaver creates, the item would need to keep those valued characteristics in order to be considered serviceable. Therefore, a certain level of colorfastness might be expected. Dyes and yarns are colorfast under different conditions. Not only are there standard methods (Lyle, 1977) for identifying lightfastness and fastness to laundering, but there are also simple tests which handweavers can use to determine if the yarns are fast under certain conditions (Bliss, 1984; Held, 1973, Knutson, 1986; Lorant, 1984; Lyle, 1977).

### **Definitions**

Handweaver - A person who produces handwoven textile products.

Professional handweavers - Handweavers who earn some portion of their income from the sale of handwoven textile items.

Guilds - Professional associations formed by and for craftspeople.

Craft yarns - Yarns packaged in relatively small units for purchase by an individual to be used for production on a small scale.

Attribute - Any dimension of a product taken into account by consumers in making purchase decisions.

Properties - Intrinsic attributes of craft yarns which emerge from the physical structure of the yarn.

Aesthetic properties - Yarn properties which appeal to the visual and tactile senses.

Performance properties - Yarn properties which allow the product to endure unchanged in regular use for a reasonable period of time.

Colorfastness - Ability of color to remain unchanged under color destroying conditions.

Servicability - The degree to which the product meets the level of performance for the intended end use.

Enduring product involvement - Long-term, cross-situational perception of product importance.

Information-seeking behavior - Efforts which are specifically directed, purposeful, and active, to obtain data about product attributes.

Wrapper - A paper encasing a package of craft yarn which conveys information until the point of sale to the weaver.

Care label - a permanently attached tag which will remain throughout the life of the garment with information available at the point of care for the ultimate consumer.

### **Working Hypotheses**

1. A positive relationship will exist between the Enduring Product Involvement Score and the Importance of Attributes Score.
2. A positive relationship will exist between the Enduring Product Involvement Score and the Information Seeking Behavior Frequency Score.
3. There will be a difference between the means of the scores for importance placed on Performance and Aesthetic properties for craft yarns.

### **Limitations**

1. The results cannot be generalized beyond the sample investigated due to the nonrandom sample selection.
2. Although the instrument was pilot-tested, no specific analysis of its reliability and validity in measuring the variables was made.

### **Assumptions**

1. The attributes and properties of craft yarns, aspects of handweavers' involvement, and the behaviors described in the instrument are additive in nature and can be summed to yield aggregate scores.
2. The instrument developed for this research provides valid measurement of the variables.
3. Respondents are able to respond and do respond to questions in a true manner for the study.
4. Handweavers demonstrate enduring product involvement with craft yarns.
5. Handweavers take into account performance and aesthetic properties in craft yarns.
6. Handweavers engage in information seeking behaviors.

## **CHAPTER IV**

### **PROCEDURES**

This study investigated the relative importance handweavers place on attributes of craft yarns, sources of information used by handweavers to learn about craft yarns, and methods used by handweavers to communicate information about handwoven textiles to ultimate consumers. In addition, the extent of the sample group of handweavers' knowledge of Federal Trade Commission TRR 16 C.F.R. 423 on care labeling for garments was examined. Finally, information processing behaviors drawn from the theory of enduring product involvement were examined.

#### **Design of Study**

The design of the study was the analytical survey method. Data were obtained from a single group of subjects. There were two levels of analysis. First, descriptive measures such as frequencies and means were used to describe responses to the questionnaire. Secondly, variables were generated from selected questionnaire items in order to examine relationships through statistical procedures.

## **Sample**

The sample consisted of 81 handweavers who were members of four guilds located in the southeastern part of the United States. One guild each from North Carolina and Tennessee, and two guilds from Louisiana were included. The method of selecting the sample was purposive (Leedy, 1980).

Presidents of 11 guilds were contacted, (Appendix A). Four were willing to take part in the research and responded with a post card within the specified time limit (Appendix B). A package of questionnaires was mailed to the contact person. The contact person was asked to read a brief statement (Appendix C), and then to distribute and collect the questionnaires at the guild meeting. A post-paid return envelope was provided.

## **Development of Instrument**

In order to measure handweavers' involvement with craft yarns, an instrument was developed by the researcher to measure involvement and information processing variables that would be consequences of involvement, and to describe the sample. The instrument was designed around handweavers' use of craft yarns, based on examination of observed use of

craft yarns and behavior of handweavers (Bloch, 1981). The questionnaire (Appendix D) consisted of sixteen sections.

### Enduring Product Involvement

Four aspects of involvement were operationalized in the instrument. Twelve statements with 6-point Likert scales were designed to measure (a) centrality of the product to ego-identity, (b) hedonic value, and (c) self-reported expertise. The anchors of the scale were 1 = Not Important and 6 = Very Important. The fourth aspect of involvement, frequency of related activities, was measured on a frequency scale (Never, Sometimes, Often, Very Often), which was reported on a 6-point scale. Two types of activities were operationalized: (1) range of related activities, and (2) specialization within traditional fiber arts. In all, 10 activities were listed. The specialized activities were drawn from the literature (HGA, 1988a) and interviews with product enthusiasts. Figure 2 presents the statements from the questionnaire arranged to demonstrate their relationship to the elements of involvement.

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**Centrality to Ego-Identity**

- I introduce myself to people as a handweaver.
- Many of my friends are artists and craftspeople.
- Weaving is the most important thing I do to express myself
- Weaving for me is just a hobby.  
(Negatively scored)

**Hedonic Value**

- I am conscious of color and texture in everything.
- When I see something very striking, I use it as an inspiration for a weaving design.
- When I am weaving, I lose my sense of time and space.
- Designing and making textiles is very pleasurable.
- The feel of yarns is very important to me.

**Self-Reported Expertise**

- I tend to trust my own experience with textiles.
- I consider myself to be skilled in weaving
- Once I have learned the basics, it is relatively easy to master new fiber techniques

**Interests and Activities****Related Interests and Activities**

- Attend craft workshops
- Teach craft workshops
- Exhibit at craft fairs
- Exhibit in shops or galleries
- Attend exhibitions in galleries

**Specialized Fiber-Art Interests and Activities**

- Weaving
- Knitting
- Spinning
- Dyeing
- Sewing

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FIGURE 2  
STATEMENTS MEASURING HANDWEAVERS' ENDURING PRODUCT  
INVOLVEMENT WITH CRAFT YARNS

Centrality to ego-identity is the determinant of enduring product involvement. Hedonic value and self-reported expertise contribute to enduring product involvement, and range of related activities and specialization within traditional fiber arts result from enduring product involvement.

### **Information Seeking Behaviors**

In order to meet the criteria that information seeking behaviors must be specifically directed, purposeful, and active, a particular occasion was described in the instrument: "When you need to find out how to care for a new type of yarn" The subjects reported the frequency in which they sought out the nine listed sources of information when they needed to learn how to care for a new type of yarn.

### **Attributes**

Because the properties of craft yarns exist in complex combinations, and because each end use has different requirements, this study operationalized yarn properties individually. The handweavers indicated the importance of 39 attributes using a 6-point Likert scale. The 39 attributes were divided between two lists. One list contained 22 pieces of information about yarns that might be

included on yarn wrappers. The other list of 17 attributes included six performance properties and seven aesthetic properties for craft yarns. The other four items on the list represented considerations that might be taken into account in making a purchase decision. The attributes were stated in neutral language rather than value-laden language (Brand, 1964). For example, the term surface qualities included the parenthetical explanation fuzzy/smooth.

As there were four pairs of alternatives for indicating units of measurement, (for weight, length, yarn count, and care instructions in words or symbols), the higher of the two ratings for each of the four pairs was used in generating the Importance of Attributes Score. Thus, if a weaver rated the importance of weight in ounces as a 6, and the importance of weight in grams as a 4, only the 6 would be included in the Importance of Attributes Score.

#### Additional Scales

Several subscales were created. These included frequency measures and Likert scales.

Frequency measures were used to indicate what products the subjects weave. The products included home furnishings textiles, garments, accessories, and yardage. The handweavers also indicated the frequency of using yarns of various fiber types.



members for the pilot test. These guild members were contacted by telephone, and agreeing to take part in the study, were sent a copy of the survey. All five handweavers who agreed to take part in the pilot test returned the survey. Their suggestions prompted several editorial changes. The term "fiber artist" was removed from the survey and replaced with "weaver." The term "sometimes" replaced "seldom." Other phrasing was adjusted to make the questionnaire easier to understand. The weavers reported that the survey took them 10 - 15 minutes to complete.

### **Analysis of Data**

The data from the questionnaire was tabulated and frequency counts and means obtained. In addition, statistical analysis was used to examine relationships between the variables.

Each subject's responses were averaged over items to which they responded. For questions that measured importance placed on certain things, the subjects responded on a discrete 6-point Likert scale. For questions that measure frequency of behavior, the subjects responded to a 4-point scale which was converted arithmetically to a 6-point scale. Never = 1; Sometimes = 2.66; Often = 4.33; Very often = 6. Thus, all the continuous variables that underwent statistical analysis were consistently reported on

a 6-point scale. The Enduring Product Involvement Score, Information Seeking Behavior Frequency Score, Attributes Score, Performance and Aesthetic Scores were all scored on a 1 to 6 continuous scale, with 1 indicating a very low score, and 6 indicating a very high score.

**Involvement, Attributes Score, and Information Seeking Behaviors Frequency Score**

The first hypothesis involved the relationship between enduring product involvement and attributes considered important. The second hypothesis involved the relationship between enduring product involvement and frequency of information seeking behaviors. The following statistical analysis was used to test the two hypotheses.

The Enduring Product Involvement Score (INV) was compared to the Importance of Attributes Score (ATT) and the Information Seeking Behaviors Frequency Score (ISBF). Pearson's  $r$  was used to determine the correlation between the Enduring Product Involvement Score and the Attributes Score, and the correlation between the Enduring Product Involvement Score and the Information Seeking Behaviors Frequency Score. Positive correlations were expected, so one-sided tests were made. The null hypotheses were

$$H_0 = \text{corr (INV, ATT)} = 0$$

and

$$H_0 = \text{corr (INV, ISBF)} = 0$$

The working hypotheses were

$$H_i = \text{corr (INV, ATT)} > 0$$

and

$$H_i = \text{corr (INV, ISBF)} > 0$$

### **Performance and Aesthetic Properties of Craft Yarns**

The third hypothesis was to determine the difference between the means of importance scores for performance and aesthetic properties of craft yarns. The following statistical analysis tested the hypotheses.

Performance (PER) and Aesthetic (AES) properties were summed over all responses and a paired comparison t-test was used to determine if there were differences between the means. Because there was no predicted outcome, a two-tailed test was used. The null hypothesis was

$$H_0 = \text{PER} = \text{AES}$$

The working hypothesis was

$$H_i = \text{PER} \neq \text{AES}$$

**CHAPTER V**  
**FINDINGS AND DISCUSSION**

This chapter presents the findings based on data collected from the 81 subjects and includes three sections. The first section describes the demographic characteristics and craft related activities of the respondents. The second section discusses the attributes of craft yarns of most interest to handweavers, sources of information used by handweavers to learn about craft yarns, and methods used by handweavers to communicate information about handwoven textiles to ultimate consumers. Also in this section, the extent of the sample group of handweavers' knowledge of Federal Trade Commission TRR 16 C.F.R. 423 on care labeling for garments is examined. The third section presents a discussion of the results of testing the relationships between variables generated from the data.

**Descriptive Data**

Four guilds participated in the study with a total of 81 completed surveys. As the surveys were distributed at the guilds' monthly meetings, only those members who were present at the meeting filled out the survey. Guild presidents estimated that half of the members usually attend each meeting. Bad weather prevented normal attendance at

some of the meetings since data was collected during winter months. One guild with 81 members was able to return only 17 surveys. Another guild with 72 members returned 33 surveys from the 35 members present at the meeting. Fourteen surveys were returned by a guild with 20 members. The fourth guild returned 19 surveys, but total membership information was unavailable. The Handweaver's Guild of America (HGA, 1988b) reported that most guilds average 44 members.

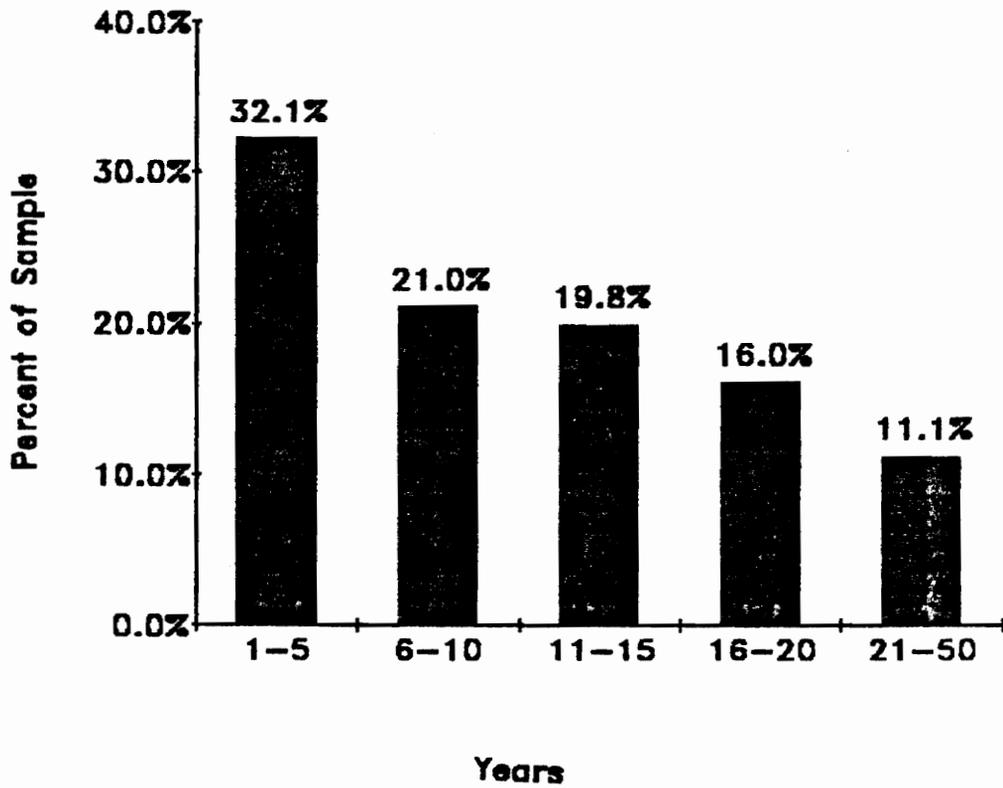
On many surveys, the respondents marked only some items, leaving other items blank. For example, on the list of ten products, they might have circled a response to only three of the products. The Tables show a category "No response." While it could be reasonably interpreted that no response is equivalent to never in many cases, this assumption cannot be substantiated. In addition, because of missing data, means and correlations are based on less than the complete sample. The number of observations on which the means or correlations are based is given.

### Characteristics of Sample

The first question on the survey was "How many years ago did you first learn to weave?" The question was framed to reflect that participating in craft activities may be non-continuous. Therefore, this question measured years of familiarity with weaving rather than years of uninterrupted weaving (Figure 3). The mean of all responses was 12.06 years with a standard deviation of 9.589 and a range from 1 to 49 years. Nearly a third (32.1%) had 1 - 5 years of familiarity with weaving, while 56.8% fell in the range of 6 - 20 years. Eleven percent of the weavers had 21 or more years of familiarity with weaving.

Table 1 shows the distribution of respondents by the amount of time spent in fiber art related activities. Forty-three percent of the handweavers spent more than 10 hours a week in fiber crafts, while 28.4% spent less than 10 hours of every week. Less than one-fifth (18.5%) practiced the craft only a couple times a month, and only 7.4% worked at fiber art related activities once a month or less.

Three-fourths (75.3%) of the handweavers in the sample derived no income from the sale of handwoven textile items they had made (Figure 4). Sixteen percent derived less than 25% of their household income from the sale of handwoven textile items. Four weavers, or 4.9% of the sample, earned

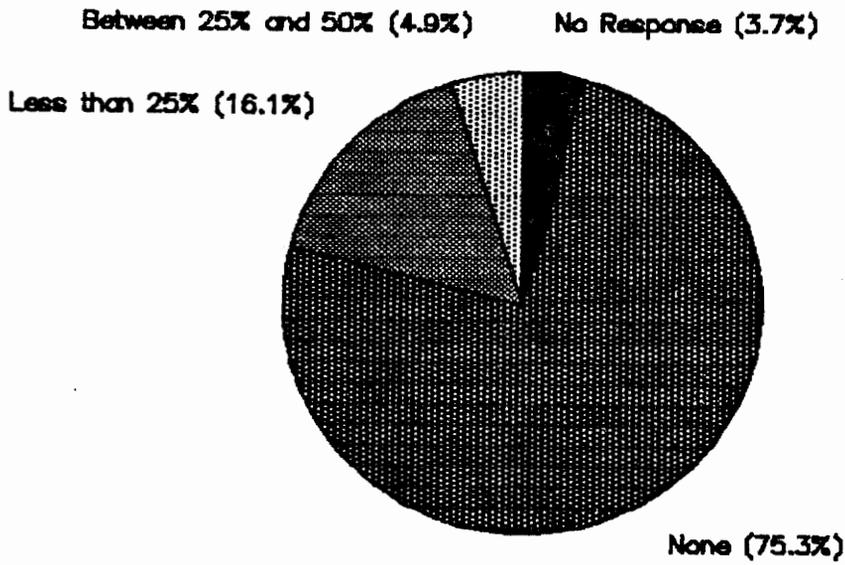


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FIGURE 3  
DISTRIBUTION OF HANDWEAVERS BY YEARS OF  
FAMILIARITY WITH HANDWEAVING

TABLE 1  
 DISTRIBUTION OF HANDWEAVERS BY TIME SPENT  
 IN FIBER-ART RELATED ACTIVITIES

Time	N	%
>10 hours a week	35	43.2
<10 hours, but every week	23	28.4
A couple times a month	15	18.5
Once a month or less	6	7.4
No response	2	2.5
TOTAL	81	100.0



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FIGURE 4  
DISTRIBUTION OF HANDWEAVERS BY PERCENT OF  
HOUSEHOLD INCOME DERIVED FROM SALE  
OF HANDWOVEN TEXTILE ITEMS

between 25% and 50% of their income from the sale of handwoven textile items.

The majority of the weavers (88.8%) indicated they had a permanent craft space in the home. The handweavers took part in many activities related to crafts (Table 2). Fifty percent (50.6%) attended workshops often or very often, and 43.2% attended workshops sometimes. Understandably, fewer handweavers taught workshops than attended them: 9.9% of the handweavers taught workshops often or very often, while 28.4% taught workshops sometimes. Almost half (43.4%) attended exhibitions in galleries often or very often. Because most weavers did not sell their work, it was logical that diminishing numbers of weavers made the effort to exhibit at craft fairs, shops, or galleries or to make custom pieces.

The respondents engaged in a variety of traditional fiber arts, and experimented with others (Table 3). As members of weaving guilds, it is appropriate that 83.9% reported that they engaged in weaving often or very often. More than half (55.5%) engaged in sewing often or very often; 44.5% knitted often or very often; 35.8% spin yarns often or very often, and 23.4% dyed yarns often or very often. Less than one quarter of the respondents never participated in either sewing, knitting, or dyeing, while more than a quarter never engaged in spinning. Many of the handweavers sometimes painted fabric (46.9%) and felted

TABLE 2  
 PERCENT DISTRIBUTION OF HANDWEAVERS ENGAGING IN  
 ACTIVITIES RELATED TO CRAFTS (N = 81)

Activity	No Response %	Never %	Some- times %	Often %	Very Often %
Attend workshops	4.9	1.2	43.2	34.6	16.0
Attend exhibitions	7.4	4.9	44.4	28.4	15.0
Exhibit at craft fairs	8.6	30.9	46.9	12.3	1.2
Make custom pieces	4.9	45.7	34.6	11.1	3.7
Teach workshops	13.6	48.1	28.4	6.2	3.7
Exhibit in shops or galleries	9.9	44.4	38.3	4.9	2.5

TABLE 3  
 PERCENT DISTRIBUTION OF HANDWEAVERS ENGAGING  
 IN FIBER-ART ACTIVITIES (N = 81)

Activity	No Response %	Never %	Some- times %	Often %	Very Often %
Weaving	2.5	0.0	13.6	40.7	43.2
Sewing	2.5	9.9	32.1	29.6	25.9
Knitting	9.9	19.8	25.9	24.7	19.8
Spinning	12.3	27.2	24.7	21.0	14.8
Dyeing	13.6	22.2	40.7	18.5	4.9
Fabric Painting	16.0	37.0	30.9	16.0	0.0
Lacemaking	18.5	61.7	14.8	4.9	0.0
Felting	18.5	49.4	30.9	1.2	0.0
Raising Fiber Animals	18.5	67.9	4.9	1.2	7.4
Papermaking	19.8	67.9	12.3	0.0	0.0

(32.1%), but fewer made lace or paper, or raised fiber animals. The respondents indicated other craft activities they were involved with. These included raising brown cotton (2), basketmaking (2), quilting (2), chair caning, crocheting, embroidery, and Japanese bobbin braiding (1).

These responses were different from those in the HGA (1988a) survey. Although weaving, spinning, and dyeing were on the top of both lists, felting and papermaking had four times the number of responses that knitting had, and 20 times the responses that sewing had on the HGA survey.

The composite portrait that emerged from the demographic data was that of a group with an abiding interest in fiber arts. This interest spanned years or even decades, and occupied several hours of each week. The handweavers had an area set up within the home where they could perform their craft work. They had interest in more than one fiber art, or in other crafts such as pottery or basket-making. The handweavers were interested in seeing the work of other craftspeople at exhibitions, and learning at workshops. The majority did not pursue craft work for financial gain.

### Yarns Used by Sample

The handweavers surveyed used a variety of fiber type yarns (Table 4). While equal numbers (39.5%) used cotton and wool often, twice as many used cotton (43.2%) very often as compared to wool (22.2%). This may be due to the fact that the sample was taken in the southeastern part of the United States. A northeastern or northwestern sample may have used more wool.

Other than cotton and wool, no other fiber type was used by more than 25% of the sample often or very often, although 24.6% used linen often or very often, and 17.3% used silk often or very often. The mean of all responses in the sometimes category was 43.7%. This meant that many fiber types were used, but not frequently. Cotton was the predominant fiber used by this sample, with a wide variety of other yarns being used in lesser proportion.

Additional fiber types and fiber blends that handweavers listed are shown in Table 5. Many of the blends included acrylic or rayon. Also, luxury fur fibers such as angora, alpaca, and llama were mentioned.

Only three alternatives were given the respondents for the sources of their yarns. The results are reported as frequency of using each source and not percentage of yarn purchased from each source (Table 6). Less than ten percent (8.6%) bought yarns in local shops very often. However,

TABLE 4  
 PERCENT DISTRIBUTION OF HANDWEAVERS USING YARNS  
 OF VARIOUS FIBER TYPES (N = 81)

Fiber	No Response %	Never %	Some- times %	Often %	Very Often %
Cotton	2.5	0.0	14.8	39.5	43.2
Wool	2.5	1.2	34.6	39.5	22.2
Rayon	18.5	14.8	45.7	9.9	11.1
Silk	13.6	17.3	51.9	7.4	9.9
Linen	12.3	14.8	48.1	16.0	8.6
Mohair	11.1	9.9	59.3	14.8	4.9
Acrylic	11.1	23.5	48.1	13.6	3.7
Grasses	19.8	3.7	63.0	11.1	2.5
Ramie	25.9	42.0	28.4	3.7	0.0

TABLE 5  
 FIBER TYPES AND FIBER  
 BLENDS LISTED BY  
 HANDWEAVERS

Fiber type	Number
Cotton-rayon	6
Wool-acrylic	5
Wool-silk	4
Silk-rayon	3
Wool-cotton	3
Alpaca	2
Llama	2
Rayon-linen	2
Wool-angora	1
Angora	1
Animal hair	1
Anything handy	1
Cotton-acrylic	1
Llama-rabbit	1
Mohair-acrylic	1
Rags	1
Veral	1
Wool-linen	1

TABLE 6  
 PERCENT DISTRIBUTION OF HANDWEAVERS  
 BY SOURCE OF YARNS (N = 81)

Source	No Response %	Never %	Some- times %	Often %	Very Often %
Mail order	4.9	4.9	43.2	24.7	22.2
Mill ends	6.2	12.4	38.3	22.2	21.0
Local shops	4.9	7.4	51.9	27.2	8.6

27.2% bought yarns in local shops often, and 51.9% bought yarns in local shops sometimes. This may reflect the presence of a good yarn shop near one of the guilds. The source of yarns is important in relation to availability of care information. More than three-fourths (81.5%) of the handweavers used mill ends, which have no care instructions, and 90.1% of the weavers purchased yarns through mail order, where less information about care instructions may be available before purchase.

### **Products**

Table 7 shows the distribution of handweavers by the frequency of weaving various products. Less than 10% of the weavers reported that they wove any one product very often. The mean of all responses for Very Often was 3.4%, while the mean of all responses for Sometimes was 34.5%. This indicates that handweavers create a variety of products. The products with the highest Often and Very Often frequency were table linens, yardage and scarfs. The two products with the highest frequency of never being made and of no response were bedspreads (85.2%), and curtains/ draperies (81.5%).

TABLE 7  
 PERCENT DISTRIBUTION OF HANDWEAVERS  
 BY PRODUCTS (N = 81)

Product	No Response %	Never %	Some- times %	Often %	Very Often %
Table Linens	9.9	4.9	54.3	28.4	2.5
Scarfs	7.4	4.9	53.1	24.6	4.9
Yardage	22.2	12.3	40.7	17.3	7.4
Tops	27.2	12.3	42.0	14.8	3.7
Outer Wraps or Ponchos	19.8	32.1	44.4	14.8	6.2
Rugs	19.8	11.1	48.1	13.6	7.4
Tapestries or Wall hangings	27.2	28.4	32.1	9.9	1.2
Suits (Top and Skirt)	37.0	34.6	21.0	6.2	1.2
Curtains or Draperies	42.0	43.2	12.3	2.5	0.0
Bedspreads	38.3	43.2	16.0	1.2	1.2

The handweavers were asked to write in any products they wove that were not listed (Table 8). Samples and demo's may have been woven to test a weave pattern or a yarn combination.

### **Attributes of Craft Yarns**

The handweavers rated the importance of 39 attributes for craft yarns on a 6-point Likert scales with 1 = not important and 6 = very important. The attributes were divided between two lists. The first list contained information about craft yarns that might be found on yarn wrappers. The other list contained performance properties, aesthetic properties, and purchase considerations.

### **Importance of Information on Yarn Wrappers**

Handweavers rated the importance of 22 types of information that might be found on yarn wrappers (Table 9). The midpoint of all the means was 4.607. The five highest means were those of fiber content, length in yards, washfastness rating, written care instructions, and lightfastness rating. The single most important information about craft yarns was the fiber content, with a mean of 5.756 out of 6. Closely following with a mean of 5.628, was

TABLE 8  
 OTHER PRODUCTS WOVEN BY  
 HANDWEAVERS (N = 81)

Product	Number
Handbags/ purses	6
Samples	6
Baby blankets	5
Blankets/ shawls	5
Camera straps	2
Pillow tops	2
Belts	1
Church paremeats	1
Demo's	1
Environmental fiber art	1
Evening bags and belts	1
Jackets	1
Rag insets for clothing	1
Wedding dress lace	1
Woven sculpture	1

TABLE 9  
 HANDWEAVERS' MEAN RATINGS FOR THE IMPORTANCE  
 OF INFORMATION ON YARN WRAPPERS (N = 81)

Information	Mean#	s.d.	<u>Response Rate</u>	
			Number	%
Fiber content	5.756	0.759	78	96.3
Length in yards	5.628	0.839	78	96.3
Washfastness rating	5.436	1.051	78	96.3
Written care instructions	5.436	1.014	78	96.3
Lightfastness rating	5.307	1.072	78	96.3
Color number	5.115	1.318	78	96.3
Weight in ounces	5.105	1.381	76	93.8
Lot number	5.102	1.354	78	96.3
Shade number	5.102	1.275	78	96.3
Manufacturer's warranty	5.013	1.508	77	95.1
Ends per inch	4.773	1.484	75	92.6
Color name	4.756	1.406	78	96.3
Yarn count cotton system	4.628	1.607	70	86.4
Int'l care symbols	4.459	1.705	74	91.3
Manufacturer's name	4.298	1.614	77	95.1
Brand name of yarn	4.179	1.568	78	96.3
Manufacturer's address	4.131	1.783	76	93.8
Direction of twist	3.527	1.563	74	91.3
Weight in grams	3.515	1.911	64	79.0
Yarn count tex or denier	3.500	1.799	66	81.5
Twists per inch	3.328	1.546	73	90.1
Length in meters	3.261	2.025	65	80.2
MIDPOINT OF DATA	4.607			

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# 1 = Not important, 6 = Very important

length in yards. Several handweavers wrote that it was very frustrating to attempt to buy a certain number of yards required for a project when yardage information was not provided on yarn wrappers. The handweavers' mean scores for rating for colorfastness to laundering and written care instructions were each 5.436. The mean score for colorfastness to light was 5.307.

Four of the 22 listed items dealt with laundering and care information. Three (washfastness, written care instructions, and lightfastness) were among the top five ratings. The other was international care symbols, with a mean rating of importance of 4.459, which was below the midpoint of 4.607. The response rate for the importance of international care symbols was 91.3%, while the response rate for the other three was 96.3%.

The list of yarn wrapper attributes included two different ways of measuring weight, length, or size of a yarn. The handweavers expressed their preference for the English system of measurement over the metric. Length in yards, with a mean of 5.628, was clearly favored over length in meters, with a mean of 3.261. Length in meters had the lowest mean rating out of the 22 items, and only 80.2% of the handweavers responded. Weight in ounces had a mean importance rating of 5.105, while weight in grams had a mean importance rating of 3.515, and a response rate of 79.0%. Yarn count (cotton or woolen system) received a mean

importance rating of 4.628, with a response rate of 86.4%, while yarn count (tex or denier system) received a mean importance rating of 3.500 with a response rate of 81.4%. The mean rating for yarn count cotton or woolen system (4.628), was slightly above the midpoint, which was 4.607. There were two other measurements which had to do with yarn size. Ends per inch received a mean importance rating of 4.773. One handweaver wrote that she wished yarn wrappers had a recommended gauge or ends per inch, since many do not. The second measurement having to do with yarn size was twists per inch, which received a mean importance rating of 3.328.

Several systems for classifying colored yarns were listed. Color number had the highest mean rating, 5.115, and color name had the lowest, 4.756. Lot number and shade number had the same mean importance rating of 5.102.

A majority of the handweavers (94.9%) indicated they believed that the terminology to describe yarns should be the same for hand craftspeople and industry. However, the more technical types of information that might be given on yarn wrappers were given relatively low scores.

Several types of information having to do with the manufacturer were listed. The warranty by the manufacturer had the highest rating, 5.013. The mean rating for the importance of the manufacturer's name (4.298), brand name of

yarn (4.179) and manufacturer's address (4.131) were below the midpoint of 4.607.

### Importance of Yarn Attributes

Handweavers rated the importance of 17 selected attributes for craft yarns (Table 10). The midpoint of the mean scores was 5.052 out of a possible 6. Among the attributes with the highest importance rating were two having to do with matching the yarn to its end use. Matching the type of yarn to what it will be used for had a mean importance rating of 5.649, and the design as you picture it in your mind had a mean importance rating of 5.426. Thus, servicability in those two senses was very important to handweavers. The performance properties of the yarn must suit the intended end use, and the aesthetic properties of the yarn must suit the design that the weaver has in mind.

Many properties of craft yarns were clustered together under the concept of servicability. The importance of servicability to handweavers indicated that many properties were weighed in making an evaluation of servicability. Past experience and formal instruction produce knowledge structures for storing and assessing new information. Therefore, handweavers' concepts about craft yarns were

TABLE 10

HANDWEAVERS' MEAN RATINGS FOR THE IMPORTANCE OF  
SELECTED ATTRIBUTES FOR CRAFT YARNS (N = 81)

Attribute	Mean#	s.d.	<u>Response Rate</u>	
			Number	%
<b>PERFORMANCE PROPERTIES</b>	<b>5.201</b>	<b>0.661</b>	<b>78</b>	<b>96.3</b>
Matching yarn to end use	5.649	0.800	77	95.1
Colorfastness	5.597	0.693	77	95.1
Yarn can be hand washed	5.539	0.855	76	93.8
Durability	5.467	0.836	77	95.1
Abrasion resistance	4.712	1.253	73	90.1
Yarn can be dry cleaned	4.068	1.610	73	90.1
 <b>AESTHETIC PROPERTIES</b>	 <b>5.177</b>	 <b>0.684</b>	 <b>78</b>	 <b>96.3</b>
Range of colors	5.526	0.945	76	95.1
Design as you picture it	5.426	0.918	75	93.8
Drape qualities	5.325	0.993	77	95.1
Feel of yarn	5.311	1.054	77	95.1
Surface qualities	5.284	1.014	74	91.3
100% natural fiber	4.816	1.240	76	95.1
Compressibility	4.581	1.238	74	91.3
 <b>PURCHASE CONSIDERATIONS</b>				
Price	4.972	1.249	74	91.3
Reputation of Manufacturer	4.613	1.403	75	93.8
Flexible return policy	4.560	1.517	75	93.8
Reputation of yarn seller	4.447	1.445	76	95.1
<b>MIDPOINT OF DATA</b>	<b>5.052</b>			

# 1 = Not important, 6 = Very important

linked by high level associations, which might be systematically applied in usage situations. Johnson and Russo found high level information processing skills among product experts. Brucks (1985, 1986) found sophisticated knowledge structures among serious product users. Selnes and Gronhaug (1986) found greater discrimination and integration of product attributes among product experts. Alba (1983) found that product knowledge increased ability to comprehend, retain, and evaluate product information. Curry (1988) posited that products provide aesthetic and performance properties, and that consumers' evaluations of quality include both dimensions.

Six performance properties were listed. The mean scores for four of them were above the midpoint rating of 5.052. Matching yarn to end use (5.649), colorfastness (5.597), yarn can be handwashed (5.539), and durability (5.467). The mean scores for two performance properties were below the midpoint. These were abrasion resistance (4.712), and yarn can be drycleaned (4.068).

Of the seven aesthetic properties listed, the means for five properties were above the midpoint of 5.052. Range of colors available had the highest mean (5.526), with the design as you picture it in your mind closely following (5.426). Drape qualities (5.325), feel of yarn (5.311), and surface qualities (5.284) all fell less than a quarter of a point (0.25) from the highest aesthetic property. Although

the last two properties listed were below the midpoint, they were still within one point (1.0) from the highest aesthetic property: 100% percent natural fiber (4.816) and compressibility (4.581). This indicates a very narrow range of responses.

The means of the attributes categorized as purchase considerations all fell below the midpoint of 5.052. Of the three categories of attributes, purchase considerations had the lowest means. In order, the means were price (4.972), reputation of manufacturer (4.613), flexible return policy (4.560), and reputation of yarn seller (4.447).

### Sources of Information About Craft Yarns

The handweavers reported the frequency of their using various sources of care information for handwoven textile items (Table 11). When responses in the often and very often categories were considered together, the most frequently used source for care information (69.1%) was the weavers' experience with the fiber type. The second and third most frequently used sources for care information were the yarn wrapper (65.4%) and other weavers (62.9%). Forty percent (40.7%) tested care methods on a sample often or very often, and an additional 45.7% tested care methods on a sample sometimes. Of the sample, 39.5% used reference books

TABLE 11

PERCENT DISTRIBUTION OF HANDWEAVERS USING SOURCES OF CARE  
 INFORMATION FOR HANDWOVEN TEXTILE ITEMS (N = 81)

Information Source	No Response %	Never %	Sometimes %	Often %	Very Often %
Yarn wrapper	9.9	2.5	22.2	39.5	25.9
Experience	14.8	2.5	13.6	44.4	24.7
Testing on a sample	9.9	3.7	45.7	22.2	18.5
Other weavers	8.6	3.7	24.7	50.6	12.3
Reference books	12.3	11.1	37.0	28.4	11.1
Retailer	14.8	17.3	35.8	23.5	8.6
Manufacturer	16.0	40.7	27.2	11.1	4.9
Drycleaner	19.8	60.5	14.8	2.5	2.5

often or very often, and 37.0% used these sources sometimes. Eleven percent (11.1%) marked that they never used reference books, and 12.3% gave no response. The retailer served as a source for care information often or very often for 32.1% of the sample, and sometimes for 35.8% of the sample. Less than one-fifth (17.3%) reported that they never consulted retailers, and 14.8% made no response.

Considering the difficulty of contacting manufacturers, it is surprising that 16.0% of the sample reported that the manufacturer served as a source for care information often or very often, and 27.2% of the sample reported that the manufacturer sometimes served as a source for care information. The other half of the sample reported that the manufacturer never served as a source for care information (40.7%) or else made no response (16.0%). The least frequently consulted source for care information by the handweavers was the drycleaner. Only 5.0% reported that a drycleaner served as source for care information often or very often, while 60.5% reported they never consulted a drycleaner as a source for information or else made no response (19.8%). However, 14.8% sometimes used a drycleaner as a source for care information.

In Busch and Houston's (1985) typology of sources of information, the personal, nonmarketer-dominated sources of information were favored. In the present research, experience, other weavers, and samples, the personal,

nonmarketer-dominated sources of information were favored over reference books, the nonpersonal, nonmarketer-dominated source. The exception was the second most frequently consulted source of information, the yarn wrapper, which was nonpersonal marketer-dominated. The personal marketer-dominated sources of information were the less frequently consulted (retailer, manufacturer, and drycleaner).

### **Formal Courses of Instruction**

One important source of information for handweavers is formal instruction. The weavers checked any of three areas in which they had received formal instruction (Table 12). Ten weavers, or 12.3% of the sample had received formal instruction in textile science or textile chemistry. Nearly half (44.4%) had received formal instruction in art or design. Eighty percent (80.2%) had received formal instruction in weaving techniques.

### **Craft Magazines**

A majority (87.5%) subscribed to textile or craft magazines. One weaver subscribed to seven different publications. The handweavers were given the opportunity to list the magazines (Table 13). By far the most frequently

TABLE 12  
 FREQUENCY AND PERCENT OF HANDWEAVERS  
 WHO HAVE HAD A FORMAL COURSE  
 OF INSTRUCTION (N = 81)

Course	N	%
Weaving techniques	65	80.2%
Art or design	36	44.4%
Textile science	10	12.3%

TABLE 13  
MAGAZINES SUBSCRIBED TO BY  
HANDWEAVERS (N = 81)

Magazine	Number	%
Handwoven	48	59.2
Shuttle, Spindle, & Dyepot	23	28.4
Threads	17	20.9
Spin-off	14	17.3
Weavers (Journal)	7	8.6
Fiberarts	5	6.1
American Crafts	2	2.4
Ornament	2	2.4
Color Trends	1	1.2
Knitters	1	1.2
Vav	1	1.2
Web	1	1.2

listed was Handwoven, listed by 48 weavers, or 59.2% of the sample. The second was Shuttle, Spindle, and Dyepot, with 23 weavers or 28.3% of the sample. Shuttle, Spindle, and Dyepot is the journal of the Handweavers Guild of America. Seventeen weavers, or 20.9% of the sample, listed Threads, and 14, or 17.3% of the sample listed Spinoff. Many other magazines were also listed.

Mittal and Lee (1988) found that interest in reading articles about the product was tied to product involvement. Venkatramen (1988) found strong correlation between product involvement and all aspects of information diffusion.

#### **Methods of Communicating Care Information**

Handweavers indicated that they provided selected ways of conveying information to customers of handwoven textile goods (Table 14). The data cover only those handweavers who marked that some portion of their income came from the sale of handwoven textile items. Out of the 81 handweavers who formed the sample, 17 sold handwoven textile goods (Figure 4).

The most frequent type of information provided to consumers was a business card with address and phone number (88.2%). The second most frequent type of information provided to consumers was a leaflet with care instructions

TABLE 14  
 TYPES OF INFORMATION PROVIDED BY PROFESSIONAL  
 HANDWEAVERS TO PURCHASERS  
 OF HANDWOVEN TEXTILE  
 ITEMS (N = 17)

Type of information #	Number	%
Business card with address & phone	15	88.2
Leaflet with care instructions	10	58.8
Oral instructions for care	9	52.9
Information required by guild or fair	3	17.6
Permanently attached care label	2	11.7
Leaflet describing process of making	1	5.8

# Subjects were asked to check all that applied

(58.8%). Slightly more than half (52.9%) provided oral instructions for care. Of the sample, 17.6% provided information required by the guild or craft fair, and 5.8% provided a leaflet describing the process of making the item. Two weavers, or 11.7% of the 17 professional handweavers, provided a permanently attached care label. Out of the entire sample of 81, only 5 weavers reported that they provided a permanently attached care label.

#### Knowledge of Care Label Regulations

Four statements derived from the Federal Trade Commission Trade Regulation Rule on care labels for garments were provided, and the handweavers were asked to respond as to whether the statements were true or false (Table 15). All of the statements were intended to be false, therefore a true response would be incorrect.

The greatest number of handweavers responded correctly to the statement "Handwoven garments do not require care labels when they are sold," with 94.9% marking this statement false.

Nearly half of the sample (48.7%) correctly marked the statement "If a handwoven garment were damaged when laundered using the care instructions from the yarn wrapper, it is the responsibility of the yarn manufacturer." One

TABLE 15  
 DISTRIBUTION OF HANDWEAVERS' RESPONSES TO STATEMENTS  
 DERIVED FROM CARE LABEL REGULATIONS

Statement #	True %	False %	N
Garments do not require care label	5.1	94.9	79
Yarn manufacturer responsible	51.3	48.7	76
Paper hang tag is acceptable label	69.2	30.8	78
Yarns labeled "dry clean only" may be safely handwashed	87.3	12.7	79

# All statements are false.

handweaver wrote in "No because it would depend on the sett and the weave." More importantly, legal responsibility is assigned to the party who affects the last transformation on the goods before they are sold as a garment. Seventy percent (69.2%) responded incorrectly to the statement "A paper hang-tag is an acceptable care label for a garment." This statement is false because the Trade Regulation Rule specifically calls for a permanently attached label which will be available at the point of care.

Because the care labeling instructions are based on a warning system, the following statement is false: "Many yarns that are labeled Dryclean only may be safely hand washed." The instruction "only" may be used when there is demonstrated damage from a care method (Federal Trade Commission 1984b). However, 87.3% of the handweavers marked this statement true. This indicated that they may disregard care instructions on yarn wrappers if they believe that "low labeling" is being used.

In general, responses to the items on Care Label Regulations revealed an inadequate knowledge of Federal Trade Commission TRR 16 C.F.R. 423 for care labeling of garments. As only 12.3% of the handweavers report having had a formal course of instruction in textile science or textile chemistry, most probably lack the specialized technical knowledge needed to extrapolate care instructions from fiber content information.

## **Generated Variables**

Data from the 81 surveys returned were used to generate variables to test the hypotheses. The first two hypotheses predicted a positive correlation between enduring product involvement and two information processing variables. The third hypothesis predicted a difference would exist between the means for aesthetic and performance properties of craft yarns.

### **Enduring Product Involvement**

Because of missing data, the means of the statements operationalized for the Enduring Product Involvement Score are generated from 77 handweavers' responses (Table 16).

The category with the highest mean is Hedonic Value (4.764). The statement "The feel of yarns is very important to me" had the highest mean (5.405). The only other mean above 5.0 was "Designing and making textiles is very pleasurable" (5.139). These findings are consistent with Laurent and Kapferer (1985) and Holbrook and Hirschman (1982) who found a strong hedonic element in consumption. Hedonic value is not a determinant of involvement, however.

The category Self-Reported Expertise had the second highest mean (4.029). Self reported, or subjective,

TABLE 16  
 MEANS OF HANDWEAVERS' ENDURING PRODUCT INVOLVEMENT  
 WITH CRAFT YARNS (N = 77)

Statement	Mean#
<b>ENDURING PRODUCT INVOLVEMENT ##</b>	<b>3.522</b>
<b><u>Centrality to Ego-Identity</u></b>	<b>3.933</b>
I introduce myself to people as a handweaver	3.895
Many of my friends are artists and craftspeople	4.888
Weaving is the most important thing I do to express myself	3.962
Weaving for me is (not) just a hobby	2.923
<b><u>Hedonic Value</u></b>	<b>4.764</b>
I am conscious of color and texture in everything.	4.850
When I see something very striking, I use it as an inspiration for a weaving design	4.253
When I am weaving, I lose my sense of time and space	4.225
Designing and making textiles is very pleasurable	5.139
The feel of yarns is very important to me	5.405
<b><u>Self-Reported Expertise</u></b>	<b>4.029</b>
I tend to trust my own experience with textiles	3.679
I consider myself to be skilled in weaving	3.750
Once I have learned the basics, it is relatively easy to master new fiber techniques	4.692
<b><u>Interests and Activities</u></b>	
<b><u>Range of Related Activities</u></b>	<b>2.822</b>
Attend craft workshops	3.814
Teach craft workshops	2.000
Exhibit at craft fairs	2.373
Exhibit in shops or galleries	2.027
Attend exhibitions in galleries	3.622
<b><u>Specialized Fiber-Art Interests and Activities</u></b>	<b>3.719</b>
Weaving	4.771
Knitting	3.489
Spinning	3.113
Dyeing	2.786
Sewing	3.890

# 1 = Low score, 6 = High score

## Derived from all statements, not intermediate means

measures of expertise are related to motivational state (Cole, Gaeth, & Singh, 1986; Selnes & Gronhaug, 1986). Serious users of a product develop confidence in their abilities to judge product attributes (Alba, 1983; Brucks, 1985, 1986).

The category Centrality to Ego Identity had an average mean of 3.933. This is relatively low. As Centrality to ego identity was an essential component of every definition of enduring product involvement (Bloch, 1981; Bloch, 1982; Bloch & Richin, 1983; Kapferer & Laurent, 1985; Rothschild, 1984; Zaichkowsky, 1985b), this indicated that the sample as a whole did not exhibit high enduring product involvement. This was confirmed by the response to the statement "Weaving for me is just a hobby" (4.076), which expressed mild agreement.

The mean for the category of Specialized Fiber-Art Interests and Activities was 3.719. This included five traditional fiber arts. Weaving had the highest mean (4.771). The order of the other four was: sewing (3.890), knitting (3.489), spinning (3.113), and dyeing (2.786). Bloch and Richins (1983) found that product involvement was associated with experimentation in related specialized activities.

The mean scores for Range of Related Activities may be low (2.822) because the category included selling and teaching activities. It has already been established that

less than 25% of the handweavers sold their products (Figure 4). The activities that involve attending were higher than the others: attending craft workshops (3.814) and attending exhibitions in galleries (3.622). Range of related activities are an important aspect of enduring product involvement (Bloch & Bruce, 1984).

**Correlation Of Enduring Product Involvement and  
Information Processing Variables**

Table 17 shows the correlations of Enduring Product Involvement Score with the Importance of Attributes Score and the Information Seeking Behavior Frequency Score, along with the one-tailed probability levels. The five elements of the Enduring Product Involvement Score were also correlated with the Importance of Attributes Score and the Information Seeking Behavior Frequency Score in order to examine the relationships.

When the five elements of the Enduring Product Involvement Score were correlated to the Enduring Product Involvement Score, high positive correlations resulted. Therefore, all of the five elements contribute towards the overall score.

TABLE 17

CORRELATIONS OF HANDWEAVERS' ENDURING PRODUCT INVOLVEMENT  
 SCORES WITH IMPORTANCE OF ATTRIBUTES SCORE AND  
 INFORMATION SEEKING BEHAVIOR FREQUENCY SCORE  
 WITH ONE-TAILED PROBABILITIES (N = 77)

Item	<u>Attributes Score</u>		<u>Information Seeking Behavior Frequency Score</u>	
	r	p	r	p
Enduring Product Involvement	0.0516	0.3256	0.3456	0.00095***
Centrality to Ego-Identity (0.7853) #	0.0326	0.3874	0.2662	0.0096**
Hedonic Value (0.7525) #	0.1708	0.0661	0.3325	0.0015**
Self-Reported Expertise (0.7051) #	-0.0637	0.2884	0.1612	0.0807
Range of Related Activities (0.7479) #	-0.1659	0.0733	0.2092	0.0333*
Specialized Fiber-Art Interests and Activities (0.6985) #	0.0193	0.4333	0.2056	0.0354*

\* p < .05

\*\* p < .01

\*\*\* p < .001

# Internal correlation to Enduring Product Involvement Score. All are p < 0.0001.

## Attributes

None of the correlations with the Attributes score were significant (Table 17). Indeed, two of the correlations were in the opposite direction from the predicted outcome. The correlation between Self-Reported Expertise and the Importance of Attributes Score, and Related Activities and the Importance of Attributes Score were both negative. The other correlations were all very weak. The null hypothesis

$$H_0 = \text{corr} (\text{INV}, \text{ATT}) = 0$$

was retained.

It is possible that the operationalization of the Importance of Attributes Score failed to measure the information processing behavior of experts. The Importance of Attributes Score is an average of 39 attributes. The average score would be higher if more attributes were given higher values. However, expert consumers often demonstrate greater discrimination (Johnson & Russo, 1984). Expert consumers would select a few critical attributes, which would be given very high scores, and the others would be given very low scores. Therefore, it may have been more accurate to measure the amount of variation in the scores, rather than the scores themselves.

In addition, if the handweavers' Self-Reported Expertise scores were higher, and the importance of

Attributes scores were lower, the inverted U information seeking curve might explain the negative correlations (Bettman & Park, 1980; Johnson and Russo, 1984). The expert handweavers may be more efficient information processors, and make good use of selected attributes, for example, fiber content (Brucks, 1985, 1986).

### Information Seeking Behavior

The correlations with the Information Seeking Behavior Frequency Score were all in the expected direction (Table 17). The correlation of the Enduring Product Involvement Score with the Information Seeking Behavior Frequency Score was low, but highly significant ( $p < .001$ ). The null hypothesis

$$H_0 = \text{corr} (\text{INV}, \text{ISBF}) = 0$$

was rejected.

Moderate positive correlations ( $p < .01$ ) between Centrality of Ego-Identity and Hedonic Value with the Information Seeking Behavior Frequency Score support the contention that information seeking behavior may be more frequent in highly involved persons. The Information Seeking Behavior Frequency Score had a moderate positive correlation with the Range of Related Activities and the Range of Specialized Fiber-Art Interests and Activities ( $p <$

.05). All of these findings are consistent with other research.

Venkatramen (1988) found that aspects of information diffusion were positively correlated with product involvement. Mittal and Lee (1988) found that interest in reading articles was related to product level involvement. Srinivasan and Agrawal (1988) found positive correlations between prior knowledge and information search.

The nonsignificant correlation was that of the Information Seeking Behavior Frequency Score and self-reported expertise. In the literature, self-reported expertise is a factor in motivation (Brucks, 1985; Cole, Gaeth, & Singh, 1986; Selnes & Gronhaug, 1986). This weak correlation must be due to flaws in operationalizing the variables.

### **Performance and Aesthetic Properties for Craft Yarns**

A paired comparison t-test was conducted to determine if there was a difference between the means of the scores for importance of Performance and Aesthetic properties (Table 10). The results revealed that no significant differences existed ( $t = 0.40, p < 0.6933$ ). The null hypothesis

$$H_0 = \text{PER} = \text{AES}$$

was retained. This meant that overall, the importance scores for performance and aesthetic attributes for craft yarns was roughly the same.

The scores for the importance of attributes for craft yarns were clustered very close to each other, with low standard deviations. There was little variability in the scores. Also, all of the scores were relatively high.

**CHAPTER VI**  
**SUMMARY AND RECOMMENDATIONS**

A survey was returned by 81 handweavers from four handweaver's guilds in three southeastern states. The survey examined attributes of craft yarns in which handweavers are most interested, sources of information used by handweavers to learn about craft yarns, and methods used by handweavers to communicate information about handwoven textiles to ultimate consumers. In addition, handweavers' knowledge of the Federal Trade Commission care labeling regulations was examined. Finally, the relationships between enduring product involvement with craft yarns and two information processing variables were examined. The instrument was designed around handweavers' use of craft yarns, based on examination of observed use of craft yarns and behavior of handweavers.

The respondents had an average of 12.06 years of familiarity with handweaving. Less than one-fourth derived any income from the sale of handwoven textile items. Forty-three percent reported that they spent more than ten hours a week engaged in fiber arts. In addition to weaving, the respondents showed strong interest in sewing, knitting, spinning, and dyeing. The weavers' use of fiber types fell in the following order: cotton, wool, linen, rayon, mohair, silk, and acrylic. The most frequently woven products were

table linens, scarfs, and yardage. Tops, wraps, and rugs were other products frequently woven.

Among the attributes with the highest importance ratings were two having to do with matching the yarn to its end use. Matching the type of yarn to what it will be used for had a mean importance rating of 5.649 out of 6, and the design as you picture it in your mind had a mean importance rating of 5.426. Thus, servicability in two senses appeared to be very important to handweavers. The performance properties of the yarn must suit the intended end use, and the aesthetic properties of the yarn must suit the design that the weaver has in mind.

Important sources of care information for handweavers were experience, yarn wrappers, and other weavers. On the yarn wrapper, the most important information was fiber content and length in yards. Also of strong importance were washfastness, written care instructions, and lightfastness.

Seventy percent of the weavers believed that a paper hang tag was an acceptable care label for a garment when it was sold. Only two weavers out of the seventeen who sold their products included a permanently attached care label as required by law. In general, responses to this survey revealed an inadequate knowledge of Federal Trade Commission TRR 16 C.F.R. 423 on care labeling for garments. Only 12.3% reported having had a formal course of instruction in textile science or textile chemistry. Most of the

handweavers probably lacked the specialized technical knowledge needed to extrapolate care instructions from fiber content information.

Five elements of Enduring Product Involvement were operationalized in the instrument: centrality to ego-identity, hedonic value, self-reported expertise, craft-related activities, and specialized fiber-art interests and activities. Each of the five elements had a high positive correlation to the overall score ( $p < 0.0001$ ). The correlation between the Enduring Product Involvement Score and Information Seeking Behavior Frequency score was highly significant ( $p < .001$ ). This would indicate that the handweavers who had higher enduring product involvement with craft yarns would also be likely to seek out many sources of information. The correlation between the Enduring Product Involvement Score and the Importance of Attributes Score was not significant. This may be due to the way that the Importance of Attributes Score was operationalized in the instrument.

A paired comparison t-test was used to test the difference between the means of the importance scores for Performance and Aesthetic properties for craft yarns. No difference was found ( $t = .040, p < 0.6933$ ). Therefore, the importance of performance and aesthetic properties for craft yarns were of equal importance to handweavers. There was little variability for any of the scores for importance of

attributes of craft yarns: they were clustered within a narrow range on the upper end of the scale.

### Recommendations

There are two areas of recommendations. First, several procedural changes could be made in conducting the study which might have reduced ambiguity. Second, several interesting avenues for research have been generated.

### Operationalization

On some respondents' questionnaires, the subjects seemed indiscriminating in their ratings of importance for attributes, circling all 6's. If certain questions were reversed, the subjects may pay more attention to each item.

The category Sometimes proved to be somewhat ambiguous, possibly serving as a catch-all for people who had tried something at least once, and thus could not check Never. In future research, analysis should rest on those who had a frequency rating of Often or Very Often, especially in activities of interest.

The Importance of Attributes Score was not sensitive to the way that handweavers evaluated craft yarns. A more sophisticated way of measuring than a simple average could

be an improvement. It is possible that ranks or weights might be assigned to various attributes.

### **Suggestions for Further Research**

Another area of interest might be the sources of satisfaction or dissatisfaction with craft yarns among handweavers. For example, it might be very simple to put yardage information on yarn wrappers, if a majority of textile handcrafters indicated that they needed this information.

The section that examined sources of yarns was not inclusive. There was no attempt to determine what proportion of yarns used came from each source. The sample indicated that they engaged in spinning and dyeing, therefore some proportion of the yarns were spun or dyed by the handweavers.

The theory of enduring product involvement may be applied to other specialty consumer groups. It may be possible to generate a model showing that highly involved consumers are product experts. This model might help explain how consumers evaluate the quality of specialty products.

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## APPENDICES

**APPENDIX A**

**Letter to guild presidents**

# VIRGINIA TECH

College of Human Resources  
Department of Clothing and Textiles

103 Wallace Hall  
Blacksburg, Virginia 24061-0410

13 November 1989

Dear

Dr. \_\_\_\_\_, a member of the Board of Directors of the Handweavers Guild of America, has suggested your guild as one whose members might be interested in participating in a survey I am conducting. I am a graduate student in the Department of Clothing and Textiles at Virginia Tech who is seeking several guilds to be a part of the survey, which will provide data for my thesis research.

The purpose of my research is to identify the aspects of craft yarns that handweavers are most interested in, the sources of information that they use to learn about craft yarns, and the methods that they use to communicate information about handwoven textiles to the ultimate consumer. The results of this research may help educators and yarn companies understand what weavers look for in products.

One guild president I spoke to suggested that it might actually take less time for everyone involved if the surveys were distributed and collected at a regular meeting. The survey takes about ten minutes to complete. If the members of \_\_\_\_\_ Fiber Guild would be willing to participate, I would send a package of surveys to a contact person designated by you together with a postage paid return envelope. Then early next spring, I would share with you the aggregated data from all the guilds who participated, so that you could see the results.

You will find enclosed a return post card on which you may indicate your willingness to take part in the research. If you have questions about this research, please feel free to call me at the Department of Clothing and Textiles (703) 231-6179 or at my home number (703) \_\_\_\_\_. Thank you for your time.

Sincerely,

Susan Ruth Rendleman  
Graduate Student

Enclosure

Virginia Polytechnic Institute and State University

**APPENDIX B**

**Postcard**

\_\_\_\_ Please send the questionnaire. The date of the next guild meeting is

\_\_\_\_\_.

The name and address of the contact person is

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone number \_\_\_\_\_

Number of questionnaires needed \_\_\_\_\_

\_\_\_\_ We are not able to take part in the research at this time.

Comments:

S. R. RENDLEMAN

VIRGINIA TECH

Department of Clothing and Textiles  
Blacksburg, Virginia 24061-0410

**APPENDIX C**

**Instructions to contact person**

## INSTRUCTIONS

Please read the following statements to the group:

This research is being conducted by a graduate student at the Department of Clothing and Textiles at Virginia Tech. The purpose of the research is to identify the aspects of craft yarns that weavers are most interested in, the sources of information that weavers use to learn about craft yarns, and the methods that weavers use to communicate information about handwoven textiles to the ultimate consumer.

Your thoughtful responses to the questionnaire will help educators and yarn companies understand what you look for in products.

The individual surveys will be averaged. The only form in which the survey data will be released is in the averaged form. However, your comments may be quoted to illustrate important points in the final paper. If you wish to comment without being quoted, please make a note.

Thank you for sharing your time and thoughts.

Number of current official members \_\_\_\_\_

Number of members in attendance \_\_\_\_\_

Please return this page with all questionnaires to:

Susan Ruth Rendleman  
Department of Clothing and Textiles  
103 Wallace Hall  
Virginia Polytechnic Institute and  
State University 24061-0410

Thank you!

APPENDIX D  
Questionnaire

HANDWEAVER'S QUESTIONNAIRE

Thank you for taking part in this research. Your answers will be kept anonymous. The purpose of this research is to describe handweavers' use of craft yarns. There is space on the last page for your comments.

How many years ago did you first learn to weave? \_\_\_\_\_

Have you taken a formal course of instruction in the following? (Please check as many as apply.)

- textile science or textile chemistry
- art or design
- weaving techniques

What percentage of your household income is derived from the sale of textile items you have woven? (please check one.)

- none
- some, but less than 25%
- between 25% and 50%
- more than 50%

Do you ... (Please circle one.)

Have permanent "craft space" in home? ..... Yes No

Teach weaving at college level? ..... Yes No

Subscribe to textile/craft magazines? ..... Yes No  
(please specify which magazines below)

\_\_\_\_\_

\_\_\_\_\_

When you sell handwoven textile items, what information do you include? Please check all that apply.

- a business card with address and phone number
- a leaflet describing the process of making the item
- a leaflet with care instructions
- a permanently attached care label
- information required by the guild or craft fair
- oral instructions for care

What type of products do you weave? Please circle the most accurate response.

(Never Sometimes Often Very often)

- scarfs ..... N S O V
- outer wraps or ponchos ..... N S O V
- tops or blouses ..... N S O V
- suits (top and skirt) ..... N S O V
- yardage ..... N S O V
- curtains/draperies ..... N S O V
- rugs ..... N S O V
- table linens ..... N S O V
- bedspreads ..... N S O V
- tapestries/wall hangings ..... N S O V
- other (please specify each on a separate line)

\_\_\_\_\_ N S O V

\_\_\_\_\_ N S O V

For each of the following statements, please mark "T" if you believe the statement to be true and "F" if you believe the statement to be false.

- Handmade garments do not require care labels when they are sold.
- A paper hang-tag is an acceptable care label for a garment.
- If a handwoven garment were damaged when laundered using the care instructions from the yarn wrapper, it is the responsibility of the yarn manufacturer.
- Many yarns that are labeled "dry-clean only" may be safely hand washed.

What fiber yarns do you use? Please circle the most accurate response.

	(Never)	Sometimes	Often	Very often
wool .....	N	S	O	V
cotton .....	N	S	O	V
linen .....	N	S	O	V
rayon .....	N	S	O	V
silk .....	N	S	O	V
ramie .....	N	S	O	V
acrylic .....	N	S	O	V
mohair .....	N	S	O	V
grasses .....	N	S	O	V
other(please specify)				
_____	N	S	O	V
blends of (please specify)				
_____	N	S	O	V

When you need to find out how to care for a new type of yarn, how often do you seek out the following sources of information? Please circle the most accurate response.

	(Never)	Sometimes	Often	Very often
the retailer who sold you the yarn .....	N	S	O	V
the manufacturer of the yarn .....	N	S	O	V
other weavers who may have used the yarn .....	N	S	O	V
reference books .....	N	S	O	V
testing care methods on a small sample .....	N	S	O	V
dry-cleaner .....	N	S	O	V
care instructions from the yarn wrapper .....	N	S	O	V
past experience with the same fiber type ....	N	S	O	V
other (please specify)				
_____	N	S	O	V

How often do you engage in the following activities? Please circle the most accurate response.

	(Never)	Sometimes	Often	Very often
Attend craft workshops .....	N	S	O	V
Teach craft workshops .....	N	S	O	V
Exhibit at craft fairs .....	N	S	O	V
Exhibit in shops or galleries .....	N	S	O	V
Attend exhibitions in galleries .....	N	S	O	V
Make custom order pieces .....	N	S	O	V
Buy yarns in local shops .....	N	S	O	V
Buy yarns by mail order .....	N	S	O	V
Buy mill ends of industrial yarns .....	N	S	O	V

How often do you engage in these fiber arts? Please circle the most accurate response.

	(Never)	Sometimes	Often	Very often
weaving .....	N	S	O	V
knitting .....	N	S	O	V
spinning .....	N	S	O	V
dyeing .....	N	S	O	V
fabric painting .....	N	S	O	V
sewing .....	N	S	O	V
felted .....	N	S	O	V
papermaking .....	N	S	O	V
lacemaking .....	N	S	O	V
raising fiber animals .....	N	S	O	V
other (please specify each on a separate line)				
_____	N	S	O	V
_____	N	S	O	V

How much time do you spend in weaving or other fiber related activities listed above?

- more than 10 hours a week
- less than 10 hours, but every week
- a couple times a month
- once a month or less

Please circle the number corresponding to how well the following statements describe you. "1" means that you strongly disagree with the statement as it applies to you. "6" means that you strongly agree that the statement applies to you.

	Strongly disagree			Strongly agree		
I introduce myself to people as a weaver .....	1	2	3	4	5	6
Many of my friends are artists and craftspeople .....	1	2	3	4	5	6
Weaving is the most important thing I do to express myself .....	1	2	3	4	5	6
I tend to trust my own experience with textiles .....	1	2	3	4	5	6
I am conscious of color and texture in everything .....	1	2	3	4	5	6
Weaving for me is just a hobby .....	1	2	3	4	5	6
When I see something very striking, I use it as inspiration for a weaving design .....	1	2	3	4	5	6
I consider myself to be skilled in weaving .....	1	2	3	4	5	6
While I am weaving, I lose my sense of time and place .....	1	2	3	4	5	6
Designing and making textiles is very pleasurable .....	1	2	3	4	5	6
The feel of yarns is very important to me .....	1	2	3	4	5	6
Once I have learned the basics, it is relatively easy to master new fiber techniques .....	1	2	3	4	5	6

If wrappers for yarns were to have a standardized format, containing specific information, please rate how valuable to you the following information would be. "1" is of no importance, and "6" is most important.

	Not important			Most important		
fiber content .....	1	2	3	4	5	6
twists per inch .....	1	2	3	4	5	6
ends per inch .....	1	2	3	4	5	6
direction of twist(S or Z) .....	1	2	3	4	5	6
manufacturer's name .....	1	2	3	4	5	6
manufacturer's address .....	1	2	3	4	5	6
brand name of yarn .....	1	2	3	4	5	6
lot number .....	1	2	3	4	5	6
shade number .....	1	2	3	4	5	6
color number .....	1	2	3	4	5	6
color name .....	1	2	3	4	5	6
weight in ounces .....	1	2	3	4	5	6
weight in grams .....	1	2	3	4	5	6
length in yards .....	1	2	3	4	5	6
length in meters .....	1	2	3	4	5	6
written care instructions .....	1	2	3	4	5	6
international care symbols .....	1	2	3	4	5	6
yarn count (cotton or woolens system) .....	1	2	3	4	5	6
yarn count (tex or denier system) .....	1	2	3	4	5	6
rating for colorfastness to light .....	1	2	3	4	5	6
rating for colorfastness to laundering .....	1	2	3	4	5	6
warranty by manufacturer .....	1	2	3	4	5	6

If you were selecting yarn for a project that you were planning to sell, please rate how *important* each of the following things would be to you in your decision. "1" is of No importance, and "6" is Most important.

	Not important			Most important		
reputation of manufacturer ..	1	2	3	4	5	6
reputation of yarn seller .....	1	2	3	4	5	6
flexible return policy .....	1	2	3	4	5	6
range of colors available .....	1	2	3	4	5	6
the design as you picture it in your mind .....	1	2	3	4	5	6
compressibility (loft or bulk) .....	1	2	3	4	5	6
price .....	1	2	3	4	5	6
surface qualities (fuzzy/smooth) .....	1	2	3	4	5	6
durability .....	1	2	3	4	5	6
drape qualities (stiff/limp) .....	1	2	3	4	5	6
colorfastness .....	1	2	3	4	5	6
100% natural fiber .....	1	2	3	4	5	6
abrasion resistance .....	1	2	3	4	5	6
feel of yarn (warm/cool; dry/moist) .....	1	2	3	4	5	6
matching the type of yarn to what it will be used for .....	1	2	3	4	5	6
yarn can be hand washed .....	1	2	3	4	5	6
yarn can be dry cleaned .....	1	2	3	4	5	6

Do you feel that the terminology to describe yarns (check one).

- should be the same for hand craftspeople and industry.
- should be different for hand craftspeople and industry.

Comments:

Thank you!

## VITA

Susan Ruth Rendleman was born in Iowa City, Iowa on April 14, 1961. Her family moved to Williamsburg, Virginia in 1973. Miss Rendleman spent her senior year in high school concurrently enrolled at Christopher Newport College. She transferred to Mary Washington College, where she received a B.A. in American History in 1984. For the next three years, she worked as a museum interpreter in the Historic Area of Colonial Williamsburg. In 1987, Miss Rendleman enrolled in the Department of Clothing and Textiles at Virginia Polytechnic Institute and State University. Her areas of study were textile marketing and evaluating the physical properties of textiles. In her graduate assistantships, Miss Rendleman worked in the Clothing and Textiles Extension Office and taught the Textile Evaluation laboratory.

*SR Rendleman*