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Diversity in fashion and women's roles from 1873 to 1912

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Diversity in fashion and women's roles from 1873 to 1912

by

Sarah Louise Cosbey

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

Major: Textiles and Clothing
Major Professors: Mary Lynn Damhorst and Jane Farrell-Beck

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1997

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INTRODUCTION

Rationale

The process of fashion change has long been an interest of scholars from various areas of study, and particularly of those from the field of clothing and textiles. Literature on the topic has considered factors which promote or inhibit fashion change; the process by which new fashions are introduced, adopted, and become obsolete; and sources which influence the look of fashion at a given place and time.

One of the more recent attempts at explaining stylistic changes in clothing is what has been termed the ambivalence theory of fashion change (Kaiser, Nagasawa, & Hutton, 1995). This theory incorporates symbolic interaction theory to consider social and psychological phenomena in explaining the fashion process. The ambivalence theory of fashion is thought to be particularly relevant to the present because U.S. society appears to be characterized by, the theory's proponents argue, ambivalent feelings about cultural categories—traditional classifications used by people in order to make sense of their reality—such as the social class, age, gender, and ethnicity of their fellow society members (McCracken, 1988).

Kaiser et al. (1995) attempt to explain not only why fashion change occurs, but conditions under which "appearance-modifying commodities" (i.e., dress) will become more heterogeneous. Simply put, the authors suggest that, given a
capitalistic marketplace and human ambivalence, appearance-modifying commodities will become ambiguous in symbolic meaning. The meaning of the resulting ambiguous appearance styles will then be collectively negotiated through social interaction. Continued human ambivalence and continued availability of new appearance-modifying commodities in the marketplace will allow the process to repeat itself, and in this way fashion change is ongoing. In addition, the authors propose that, given the same open marketplace, "if cultural ambivalence increases, then the heterogeneity of appearance-modifying commodities will increase" (Kaiser et al., 1995, p. 180).

The ambivalence theory of fashion is based on the symbolic interaction theory. Simply put, a symbolic interactionist perspective on fashion provides that people use clothing symbols to communicate information about themselves and in forming ideas about others (Kaiser, 1990). The meanings attached to such clothing symbols are defined through social interaction. It follows, then, that ambivalence about one's social identity may be expressed via one's dress. Through social interaction, individual ambiguous styles would be interpreted, and those which become meaningful to consumers would be adopted.

The idea of a relationship between ambivalence and diversity in dress has been suggested before. Littrell and Evers (1985) studied the relationship between role clarity and
designs for Catholic priests' liturgical vestments. Applying Warren's theory (1949) about social disorganization, role clarity, and behavior, Littrell and Evers hypothesized that when the clarity of definition for the role of priest decreased, diversity in vestment design would increase. According to Warren, the lack of role clarity requires individuals to define appropriate behaviors for themselves, leading to a variety of interpretations; therefore, lack of role clarity may also stimulate a diversity in appearance styles deemed appropriate to that role.

Littrell and Evers (1985) visually analyzed photographs of chasubles produced over a 30 year span which saw a change in the priest role involving a period role clarity, followed by a period of role ambiguity, and finally a return to role clarity. Evidence was found to support the hypothesis—a greater diversity in vestment design occurred during the period of ambiguity for the priest role than during the periods of role clarity.

In his book Fashion, Culture, and Identity, Fred Davis (1992) explored similar issues. Davis wrote that clothing is a particularly suitable medium for conveying one's social identity. Because of clothing's inherently ambiguous symbolic nature, ambivalent social identities particularly may find expression through dress. He proposed that identity ambivalence has an ongoing influence on changing fashion in that clothing designers draw inspiration from "collectively
experienced, sometimes historically recurrent, identity instabilities" (p. 17), such as those involving gender roles. For example, a woman's ambivalent feelings about her gender role may be similarly experienced by many of her female contemporaries; fashion designers would sense this ambivalence and incorporate ambiguous symbolic elements, such as combining feminine dress characteristics with masculine dress characteristics, to reflect the confused feelings about women's gender roles. Davis observed that social identities are in a constant state of agitation due to ongoing changes in various aspects of society, such as technology change and social change. If the ambivalence theory of fashion is sound, then, evidence for increased diversity in fashion should be available during other periods in history when ambivalence about social identities has occurred.

The ambivalence theory of fashion has received much attention in recent years (Kaiser, 1990a; Kaiser, 1990b; Kaiser, Nagasawa, & Hutton, 1991; Kaiser, et al., 1995; Nagasawa, Kaiser, & Hutton, 1995; Nagasawa, Kaiser, & Hutton, 1996) however, to date there has been little effort at collecting empirical evidence from times other than the last decades of the twentieth century to support or refute the theory. The purpose of the present study was to do just that. Middle- to upper middle-class, white, American women's social roles and the fashions they wore from the later nineteenth century through the early twentieth century provided an ideal
context in which to test this theory. This time period began with an ideology about woman's place in society rooted in a relatively clearly defined set of ideas which prescribed a home-centered life for women, sometimes referred to as the "cult of domesticity" (Harris, 1978). As time passed, an increasing ambivalence about this role gathered momentum, leading to the nineteenth century women's movement and the fight for woman suffrage.

For the present study, women's magazines published regularly during the period of interest were available which contained primary evidence of clothing styles in the form of fashion illustrations marketed to and presumably worn by this group of women. A review of women's history literature indicates that, between 1873 and 1912, views on women's roles in American society became increasingly ambivalent. If evidence exists to support the ambivalence theory of fashion change, women's fashions, as represented in the illustrations from women's magazines, should become increasingly diverse in styling over the 40 year period.

In order to measure the diversity in the illustrated fashions, an instrument was developed for conducting a visual analysis. The instrument allowed researchers to "code" the illustrations, or assign numerical values to features of the costumes. By obtaining a thorough, quantitative description of fashions of the period, a measure of the diversity in fashion could be achieved objectively. Therefore, in addition
to testing the ambivalence theory of fashion change, the
development of a comprehensive visual analysis instrument was
considered an important contribution of this study.

Hypotheses and Research Questions

The following hypotheses were examined in the context of
the years 1873 through 1912. References to "women's roles"
imply the role of white, middle- to upper middle-class,
American women.

The null hypothesis:

H₀: There was no association between women's role
ambiguity and diversity in women's fashions.

The alternative directional hypothesis:

H₁: There was a positive association between women's
role ambiguity and diversity in women's fashions.

If a steady increase in the diversity of clothing styles
with time occurred, the alternative hypothesis was supported.
Any other association between year and diversity in clothing
styles supported the null hypothesis.

Organization of Dissertation

To establish the increasing ambiguity which characterized
women's social roles during the period of interest, Chapter 2
reviews primary and secondary literature pertaining to women's
social history from the later nineteenth century through the
early twentieth century. As mentioned, a major part of the
study was the development of a visual analysis instrument with
which to gather the data from the fashion illustrations.
Therefore, Chapter 3 reviews studies using a visual analysis approach in collecting data, and concludes with a brief discussion of those approaches incorporated into the instrument designed for the present study.

Chapter 4 reports the methods used in the study. It will include a definition of terms, a description of how the sample fashion illustrations were selected, and a brief overview of the instrument design and the procedure used to code the sample. Methods used in measuring reliability for the various instrument items are discussed, in addition to the data analysis used to ascertain whether diversity in fashion was associated with the increasing ambiguity surrounding women's roles.

The results of the analysis follow in Chapter 5, along with an interpretation of those findings. Finally, recommendations for further research are discussed.

The appendices provide further detailed information about the instrument and findings. Appendix A contains the visual analysis instrument used for coding the sample fashion illustrations, followed by a thorough discussion of each item in the instrument in Appendix B. Appendix C contains graphical representations of the significant findings.
LITERATURE REVIEW - WOMEN'S HISTORY

The years beginning just after the Civil War and continuing through the first decade of the twentieth century witnessed a marked change in the social role of white, middle-class American women. This change was characterized by a movement away from a relatively restricted and clearly defined role, toward a much more ambiguous role associated with an expanded sphere of activity. A review of the relevant literature, including both primary and secondary sources, indicates that evidence of women's role change over this period may be grouped into the following general categories: higher education for women; organizational activities of women, including women's clubs, settlement work, and the suffrage movement; women's advancement in the professions; and popular views regarding feminine beauty and conduct. Primary evidence was obtained from issues of Harper's Bazar, one of the periodicals used as a source of fashion illustrations. In addition to fashion information, Harper's Bazar contained a variety of material deemed suitable for women (i.e., needlework projects, poetry, society news, etc.) as well as editorials reflecting thoughts about women's social status. Selected issues were examined for general content and for articles that specifically addressed the role of women in contemporary society. Secondary sources consisted largely of "feminist" types of women's histories that covered the period of interest.
Prologue: The Cult of Domesticity

To appreciate the change that occurred in women's social roles, it is necessary to understand the set of beliefs that shaped women's lives at the outset of this period. The generally accepted ideology concerning the role of women in the nineteenth century is expressed by what has been called the "cult of domesticity" (Harris, 1978). In her book Beyond Her Sphere: Women and the Professions in American History (1978), Harris wrote that four core beliefs composed the cult of domesticity. First, there was a distinct separation between home, the domestic sphere, and the world outside, the economic sphere, that "paralleled a sharp contrast between female and male natures" (p. 33). The domestic sphere was viewed as woman's proper place, to which her husband would retreat after a day spent in the hard and demanding public sphere. It was also believed that women were inherently more moral than men. Finally, motherhood was considered to be woman's highest purpose, and took on an almost sacred significance.

Though the cult of domesticity was primarily a middle-class set of beliefs, it affected all who strove to be "respectable." This made things rather difficult for some women, such as "the middle-class spinster without an adequate inheritance or a relative with whom to live" (p. 60), or married women of the working class who, aspiring to middle-class respectability, gave up paid employment and the needed
extra income the moment they could get by without it. In reality, those who could achieve the ideal were largely married, "white, middle- and upper-class women in more settled areas of the country" (Harris, 1978, p. 33).

Even though the home was considered the Victorian woman's domain, her position was still subordinate to that of her husband; she accepted her husband as her authority. Selflessness in the cause of ministering to the needs of others--husband, children, and relatives--seemed to underlie woman's defined role (Harris, 1978). However, Harris wrote that it was the cult of domesticity, not the older tradition of female inferiority and subordination, that was most characteristic of nineteenth-century ideas about women and that appeared most frequently in the flood of fiction and nonfiction designed to define the female role and tell women how to behave. Many Victorian Americans who rejected, or at least equivocated about, ideas of female subordination and inferiority still advocated an exceedingly restricted role for women, because they accepted fully the assumptions of the cult of true womanhood. (p. 56)

Gail Hamilton's article "The Useful Woman," published in an 1876 issue of Harper's Bazar, supported Harris' statement. Hamilton argued against the tendency to devalue a woman's work
unless she received a wage or salary. She pointed out that all the activities entailed in caring for a home and family were of great importance even though they did not result in earning money. According to the author, one of woman's greatest functions was that of spending her husband's income toward making a comfortable life for her family. Hamilton stated that the "work that earns no money, that has no relation to money except to make a continual drain upon it" was really "the very best work done in the world, the most useful, the most essential, the most elevated" (p. 354). The sanctity of nineteenth-century woman's role is made clear by her statement, "The one duty of the race is its own elevation. Man does this indirectly by material work: woman does it directly by moral work" (p. 354).

The Victorian American view of women's mental and physical make-up reinforced the cult of domesticity. According to Harris (1978), it was thought "that women's reproductive organs determined the state of their physical and emotional health, while their behavior and character in turn affected the health of their reproductive systems (p. 40). In comparison to men, women were considered to be less rational, more emotional, and more subject to illness, both mental and physical. It was believed that women should refrain from higher education or the professions because intellectual activity "robbed their uteri of adequate supplies of blood and energy" (p. 41). Instead, a woman should confine herself to
domestic activities and, more importantly, to her intended purpose--motherhood. It is ironic that despite the belief that women were at the mercy, as it were, of their reproductive cycles, and their subsequent association with "the natural and the physical" (p. 41), they were still viewed as being the more moral and spiritual half of Victorian society (Harris, 1978).

Nineteenth century America's support of such an ideology may be attributed to several factors. Harris (1978) wrote that the cult of domesticity evolved from middle class, Protestant ideas about "love, marriage, and women" (p. 45) that emerged in the eighteenth century. The industrial revolution brought the middle class to a more prominent position in society, and subsequently their value system became prevalent. While the aristocracy did not necessarily adhere to the cult of domesticity in Europe, the United States did not have a similar set of people to challenge this middle-class definition of respectability. Harris also noted that the cult of domesticity offered Americans stability during unsettling times. By having women attend to religion and morality while men of the nineteenth century "were conquering the land and making their fortunes" (p. 57), society was able to "quiet its anxiety about the fundamental amorality of its commitment to materialism without changing its basic direction" (p. 57). The cult of domesticity also "preserved the sexual hierarchy in an era when almost every other form of
social classification was crumbling in the face of extraordinary pressure toward egalitarianism" (p. 57). Furthermore, the industrial revolution moved to the public sphere many forms of labor that were previously carried out in the home (Harris, 1978), and improvements in household technology continued to ease what labor still remained (Evans, 1989). As a result, two major aspects of the cult of domesticity could be more fully effected; the separation of private and public sphere became more complete, which in turn enabled women to devote themselves more completely to the care and upbringing of their children (Evans, 1989).

Impetus for Change: Higher Education for Women College Attendance

Probably the most important way that women began to enlarge their sphere of activity was by going to college. Education appears to have been an important first step that would lead to other changes. Higher education for women expanded significantly during the last third of the nineteenth century (Harris, 1978). In her book *Women Have Always Worked: A Historical Overview* (1981), Kessler-Harris wrote that "a steady stream of daughters from affluent and middle-class families fed the growing numbers of coeducational universities and the new colleges for women that opened in the 1870s and 1880s" (p. 109). According to Patricia Graham (as stated in Harris, 1978), this expansion occurred partly in response to feminist stirrings in the East, but primarily as a result of
"the dire economic need of colleges and universities, which faced dropping enrollments due to the Civil War, economic depression, and dissatisfaction with the college curriculum" (p. 98). State universities found it necessary to admit women also "because taxpayers with daughters would not support institutions unless their children could attend along with the sons of their neighbors" (Harris, 1978, p. 98). During these years a number of private colleges for women were also established in the East; Vassar was founded in 1861, Smith and Wellesley in 1875, Bryn Mawr in 1885, and Radcliffe in 1893; Mount Holyoke was able to grant degrees by 1888 (Harris, 1978). Harris wrote that "the number of women going to college increased steadily between 1860 and 1920. By the latter year, 47.3 percent of the total enrollment was female, a figure that signified a major educational revolution. . . . The college woman was no longer an isolated figure by 1900" (p. 103).

**Tendencies After College**

The first female college graduates were faced with the novel question of what use to make of their education (Gordon, 1987; Kessler-Harris, 1981). For some women, an education itself was its own reward, and a specific application for their newly acquired knowledge was not a concern. Many simply returned to a domestic existence "as dutiful daughters, or as housewives and mothers" (Gordon, 1987, p. 214). Those who pursued a particular career usually met with discrimination;
the public domain was not yet ready to accept the woman professional (Evans, 1989; Gordon, 1987). Public school teaching seemed to be the most likely career for a college-educated woman. Some pursued further education in medicine. Colleges of medicine for women were available, although a small number of women attempted to penetrate the student body of the established medical schools (Kessler-Harris, 1981). The literature often mentioned a period of melancholy for women graduates who had known a happier time of intellectual freedom at college, where they were able to explore their interests and abilities (Evans, 1989). Along with the formation of intimate friendships and a "recognition of sisterhood" (p. 103) with other college women, this postgraduate unrest led to the growth of women's clubs and women's growing interest and involvement in social reform, especially settlement house life (Evans, 1989; Harris, 1978).

On a more personal level, many women found that a college education put them in the difficult position of choosing between marriage and a career. The prevailing middle-class Victorian views on womanhood would not accommodate the notion of a working wife, let alone a working mother (Gordon, 1987; Harris, 1978). In her article entitled "The Passing of Matrimony" in the June, 1903 issue of Harper's Bazar, author Charlotte Perkins Stetson Gilman explained, "We have so arranged life . . . that a woman must 'choose'; must either live alone, unloved, uncompanioned, uncared for, homeless,
childless, with her work in the world for sole consolation; or give up all world-service for the joys of love, motherhood, and domestic service" (p. 496). She also illustrated the injustice of the situation by observing, "Suppose every man had to choose between marrying the woman of his choice and instantly becoming a janitor for life, or remaining a bachelor and following the work he loved best, serving his fellow men and reaping honor and profit" (p. 496).

Indeed, many women found it difficult to abandon the intellectual stimulation they became accustomed to at college, or their dedication to a particular field. Because a higher education enhanced their ability to earn a living, many women had the option of rejecting marriage in favor of a career (Harris, 1978). Although securing suitable work was not easy, opportunity increased with the spirit of reform that was to characterize the 1890s (Gordon, 1987). Many college women may also have chosen work over marriage in an effort to avoid sexual relations. Because many women were raised with the view that sex was a "necessary evil" of marriage--an act which was somewhat offensive--the Victorian woman's ingrained aversion to sex may have been another motive for the female college graduate to embrace alternatives to marriage (Harris, 1978).

Accordingly, a large number of college-educated women made the choice of remaining single (Harris, 1978). Gordon (1978) cited economist Mary Cookingham in observing that "the
proportion of college-educated women who married was lowest between 1865 and 1900," and added that "others have noted that the generation of women born between 1860 and 1880 contained the highest percentage of never-married women in American demographic history" (p. 223). In addition to the falling rate of marriage, college-educated women were blamed for the falling birth rates and the rising divorce rates of the late nineteenth century (Gordon, 1987). Harris (1978) attributed "the stereotype of the educated spinster" (p. 101), a figure completely in conflict with the cult of domesticity, to the behavior of eastern women's college graduates. The tendency of these women to seek graduate educations, positions of social reform leadership, and employment in the male-dominated professions, along with their inclination toward remaining single, attracted attention by challenging convention.

Contrary to the fears of many in the early twentieth century, the institution of marriage remained intact despite the fact that more and more women were going to college. Other changes came about to make marriage a more attractive option to women college graduates, including society's support of "women's heterosexual pleasure (within marriage), smaller families through birth control, and egalitarian spousal relationships" (Gordon, 1987, p. 224). Also, attending college along with their male peers, especially in a coeducation environment, assisted in closing the gap between women's and men's lives which existed under the Victorian
Era's doctrine of separate spheres. The strong feelings of separateness from men that united so many women of the nineteenth century lessened with time (Gordon, 1987).

**Climate of Opinion**

In its early years, women's higher education was condemned by various supposedly learned sources (Gordon, 1987). Physical anthropologists argued that women's smaller brains were evidence that they were not as intelligent as men (Harris, 1978). Consistent with the Victorian fixation on women's reproductive capacity, physiologists proclaimed that the intellectual activity required in a college education would divert necessary energy from women's reproductive organs, which would result in inhibited childbearing capabilities, or the birth of weakened or otherwise handicapped children (Evans, 1989; Harris, 1978). Aside from the biological consequences, opponents of women's higher education maintained that by going to college, women "had unsexed themselves . . . culturally and socially" (Gordon, 1987, p. 213). The greater likelihood of college-educated women remaining single or, if they married, of having fewer children also gave cause for concern (Harris, 1978).

Women still faced discrimination once they arrived at college. State universities did not provide women with the amenities available to the male students, including medical and recreational resources (Gordon, 1987). Gordon wrote that "male students and faculty sometimes ridiculed female
students, but more often ignored them because the numbers of
women on any one campus remained small before the 1890s, and
did not appear threatening" (p. 214). Women's colleges
catered more to their students' needs. However, they still
carefully regulated and supervised the students in order to
maintain a respectable reputation (Gordon, 1987).

Keeping in mind the postgraduate tendencies of the first
generation of college women, Americans of the Progressive Era,
while apparently more accepting of higher education for women,
became increasingly anxious about the future of their young
women as more and more of them went to college (Gordon, 1987).
In his 1903 article "Girls and their Education," author E. S.
Martin expressed mixed feelings about higher education for
women. He allowed that "when you disparage women, and balk
their reasonable aspirations, and leave them with their minds
ill-trained and imperfectly developed, you waste, by
misdirecting it, an enormous amount of will power that ought
to be working harmoniously for the betterment of everything"
(p. 1134). On the other hand, he pointed out that by allowing
a girl to pursue a field of interest she is not only diverted
from "a woman's greatest career," that of wife and mother, but
she is in danger of becoming "so busy with other concerns as
to miss meeting the man whom she ought to marry" (p. 1136).
Another concern Martin had regarding women's higher education
was that "too many women, perhaps, in these days, are educated
beyond the point of being satisfied with any man who is likely
to want to marry them" (p. 1138). The author confirmed the ambiguity surrounding women's social roles at this time by the statement, "The ultimate use of girls' education is as yet much less clearly ascertained than the ultimate use of education for boys" (p. 1135).

However, a turn back in the tide of higher education for women was not likely to happen. The answer to the uneasiness over college women was to defuse the threatening image of the female college student, and redirect her back to the domestic sphere upon graduation. In her article "The Gibson Girl Goes to College: Popular Culture and Women's Higher Education in the Progressive Era, 1890-1920," Gordon (1987) argued that the Gibson girl interpretation of the college woman reflected an attempt to do just that. Gordon wrote that by "calling them 'college girls,' and depicting them as typical, fun-loving, middle-class Gibson Girls, popular literature of the Progressive Era softened the disturbing image of educated women" (p. 215). This biased depiction of the female college student "demonstrated the consternation with which most Americans regarded women's changing status" (p. 211).

Popular representations of young women at college in the early twentieth century tended to stress their more domestic or diversionary activities; examples Gordon (1987) mentioned include fudge parties, elaborate teas, chafing dish suppers, sewing costumes for plays, and dancing around trees. Drawings of college girls presented attractive, feminine young women;
Harrison Fisher illustrated the college girl studying with a long-stemmed rose lying gracefully across her books. However, after about 1910, when the Gibson Girl became outdated and the college girl became less of a threat, popular literature would still discourage the middle-class woman from straying too far from the domestic sphere (Gordon, 1987).

In an anonymous 1912 Harper's Bazar article entitled "How Love Passed Me By: The Confessions of a Business Woman," the author, a successful "woman land agent" with her own business, attempted to warn girls off the "rut" in which she found herself. A graduate of a business college, the author wrote about how she worked up to owning her own business. Her success, she confessed, was empty because she neglected the traditional feminine ambitions, such as "learning something about the household crafts" (p. 277), pursuing a social life, finding love and getting married, and attending to her personal appearance. She also blamed her preoccupation with her job for "a gradual deadening of my entire emotional nature" (p. 277), for without an emotional outlet in her job, she wrote that "gradually I became accustomed to stifle my emotions, conceal my dislikes, control my likes, and generally repress any tendency to natural feminine behavior" (p. 277). While some of these regrets seem understandable, if somewhat stereotyped, what is perhaps most disheartening is the woman's lack of appreciation for her own achievements. Lamenting her nervous state, she wrote, "as I sit and fidget in my luxurious
office, snap at my stenographer, and jump and tremble at a sudden ring of my telephone—I wish I had stayed home and just helped mother!" (p. 277). The author ended the article with a pledge to "turn my sham success into a real one" (p. 277), starting with allowing her staff to have Saturdays off, ordering a tailor-made gown, and inviting "three other lonely spinsters to a little theater-and-supper party" (p. 277). Consistent with Gordon's statement, while the article was neither completely for or against women having careers, it did caution them about the dangers of straying too far from the traditional female role.

**Domestic Science**

Gordon (1987) identified the domestic science movement, which included the establishment of domestic science (or home economics, etc.) curriculums at universities, as one reason why changes in women's roles which began with the first generation of college women did not continue thereafter. This popular movement of the Progressive Era had a variety of prestigious supporters, including "feminists, social reformers, and academics," as well as women's magazines (Gordon, 1987, p. 220). While Harris (1978) wrote that the majority of female students at state universities "were enrolled in education and home economics programs and received much less rigorous intellectual training than male students" (p. 99), it seems that domestic science programs could be quite demanding. Gordon (1987) described the sanitary science
curriculum at the University of Chicago as requiring "the study of chemistry, biology, sociology, and special seminars to integrate these disciplines around the study of home and family" (p. 220). Still, the resisting eastern colleges felt that such a program would undermine the intellectual progress of women (Gordon, 1987). It seems that even within the academic community there developed differences in the philosophy regarding what kind of education a woman should receive.

The domestic science curriculum evidently was a necessary transitional step in opening further options to women. While home economics classes were not required of female students (Gordon, 1987), their availability seemed to help society accept the presence of women at colleges and universities. For this reason, the domestic science movement may reflect, like the "Gibson College Girl" image, society's effort to deal with its ambivalent feelings about the higher education of women; let women have a college education, but one that would not threaten their traditional role. Women's intellectual abilities would not be denied, but fear of what these abilities would lead to was still cause for concern in the early twentieth century.
Women Organize:
Women's Clubs, Settlement Houses, and Suffrage

Women's Clubs

Another way in which women's sphere expanded during the late nineteenth and early twentieth centuries was through participation in a variety of organizations (Kessler-Harris, 1981). The formation of these organizations was a response to a growing discontent among nineteenth century middle-class women (Evans, 1989), resulting from, for the most part, their restriction to the domestic sphere. Club activity helped to widen women's narrow lot by providing them with opportunities for social interaction, avenues for improving the community (Kessler-Harris, 1981), intellectual stimulation, and "mechanisms of upward mobility not totally controlled by their husbands" (Evans, 1989, p. 140). College-educated housewives found fulfillment through club participation (Evans, 1989).

Founded in 1874, the notable Women's Christian Temperance Union (WCTU) was formed in response to the problems middle-class midwestern women faced due to men's abuse of alcohol (Evans, 1989). The WCTU campaigned for the protection of women and their children who had to rely on the support of alcoholic husbands and fathers, making them vulnerable to abuse, financial hardship, and abandonment (Evans, 1989; Kessler-Harris, 1981). The WCTU argued that eliminating drink would preserve family life and would save the community from corruption and decay (Kessler-Harris, 1981). Members believed
in the ability of women's moral superiority to correct this and other social problems that affected the family, home, and community (Evans, 1989; Kessler-Harris, 1981). They advocated what Evans described as "a maternal commonwealth that fused public and private concerns, domesticity and politics, as well as the republican mother and the suffragist" (p. 127). The separation between women's sphere and men's sphere that characterized the nineteenth century middle-class social code cultivated an atmosphere in which female reform groups were united, like women's college students, by strong feelings of sisterhood. Women's moral guardianship not only gave them a sense of solidarity but drew them into the community to promote the virtue they instilled in their homes. Without directly challenging their prescribed boundaries, women were able to take an active public role through club activities and, by doing so, became aware of their potential for influence. Club involvement also nurtured organizational skills which would serve women well as their public activity continued to increase (Evans, 1989).

Evans (1989) noted that "the women's club movement began in 1868 with the formation of Sorosis by professional women angry that they could not attend a dinner for British author Charles Dickens at the New York Press Club" (p. 139). Women's clubs continued to develop to serve different purposes (Kessler-Harris, 1981). Many were organized, like the WCTU, for the purpose of social reform. Evans wrote that "women's
clubs worked most actively on the broad agenda of 'child-saving'—including reforms such as child labor laws and mothers' pensions" (p. 150). Other clubs met for the purpose of self-improvement or "self-culture" (Evans, 1989, p. 140), "as reading and discussion groups" (Kessler-Harris, 1981, p. 110), or "merely for entertainment" (Kessler-Harris, 1981, p. 110). By 1982 the club movement became popular enough to warrant the formation of the General Federation of Women's Clubs (Kessler-Harris, 1981). Kessler-Harris noted that "By 1920, the federation had nearly a million members. Its goals now explicitly involved community outreach" (p. 111). Efforts toward public improvement "ran the gamut from investigating sanitation and corruption, to raising money for worthy causes such as building hospitals, schools, or homes for the aged" (p. 111).

Of the Harper's Bazar issues reviewed for primary evidence, features relating to women's clubs appeared in 1891, 1897, 1900, and 1912 issues. This suggests, along with the formation of the General Federation of Women's Clubs in 1892, that widespread interest in club activity had evolved by the 1890s, and continued through the first decade of the twentieth century.

**Settlement Houses**

The settlement house was another type of organization through which middle-class women stretched the confines of their social roles. The beginning of the settlement house
movement is attributed to Jane Addams who, in 1889, along with fellow college graduate Ellen Gates Starr, "established Hull House in a poor immigrant neighborhood of Chicago" (Evans, 1989, p. 148). Settlement houses served the poor by offering instruction on "household cleanliness, nutritious food preparation, and appropriate childrearing techniques" (Kessler-Harris, 1981, p. 114). Again, their moral superiority seemed to compel middle-class women to get involved, sharing their insights on virtuous living with the lower classes. Eventually, settlement workers "turned from demonstrating virtue to actively participating in social and political life" (p. 115).

Settlement work seems to be noted as much for giving college-educated women something to do as for helping the disadvantaged. According to Kessler-Harris (1981), settlement work became an important source of fulfillment for new female college graduates. Not surprisingly, more women than men took interest in "social housekeeping" (p. 115); the relative ease with which they assumed this type of work is probably due to its compatibility with nineteenth-century thoughts about the domesticity of women. The settlement house concept grew in popularity throughout the 1890s until "nearly a hundred" were established by 1900 in the more urban areas of the United States (Evans, 1989, p. 148).

Not only did settlement work itself draw women out of the domestic sphere, but it led to further public involvement.
Close interaction with the struggles of the working class sensitized settlement workers to the social problems of the community, and before long women were drawn into reform and political activism (Evans, 1989; Kessler-Harris, 1981). Exposure to the lack of city services in working-class neighborhoods encouraged settlement workers "to participate actively in city and state agencies" (Kessler-Harris, 1981, p. 116). Experience in the settlements, like participation in clubs, trained women in organization and leadership; women who later became prominent leaders for various social causes often had work experience at settlement houses (Evans, 1989). The settlement house movement also contributed to the development of the social work profession (Evans, 1989), one of the professions that admitted women from its inception.

**Participation in the Cause of Working Women**

Middle-class women who worked in the settlements were also drawn further into reform through their exposure to the plight of working-class women. The existing American Federation of Labor did not protect working women, and settlement leaders soon realized that a more effective way for them to assist these women was by helping them organize (Flexner, 1975). As a result, the Women's Trade Union League (WTUL) was formed in 1903 (Evans, 1989; Flexner, 1975). The WTUL united upper-, middle-, and working-class women for "the dual goal of organizing working women into the trade union movement and integrating working women's concerns into the
women's rights movement" (Evans, 1989, p. 158). According to Kessler-Harris (1981), "organizing strategy, strike leadership, and labor know-how came from wage-earning women," while upper-class women "used their social position, financial security, and relative leisure to fight for issues of concern to wage-earning women" (p. 118). Eventually, WTUL members would fight for legislative change to help working women (Kessler-Harris, 1981).

The National Consumers League (NCL), formed in 1899, was another organization established for the purpose of improving the condition of the working woman. The NCL asked women from the middle and upper classes to patronize only those businesses that met certain standards in the working conditions of its female employees. Adequate wages, reasonable working hours, and appropriate arrangements for meal breaks were among the concerns of the NCL. Like the WTUL, the NCL eventually fought for legislative change to ensure the welfare of women workers (Flexner, 1975; Kessler-Harris, 1981). Through participation with the WTUL and the NCL, middle- and upper-class women assisted in making more substantial improvements in working women's lives.

The settlement house movement and the women's club movement supported each other in their common cause of social reform. Women's clubs would increasingly focus on "a variety of benevolent activities in behalf of women and children" (Evans, 1989, p. 150). Through helping others and promoting
their innate sense of morality, both natural aspects of their role as defined by the cult of domesticity, women were breaking down barriers set up by that very same social code (Evans, 1989).

Suffrage

Women's beliefs in their ability to benefit society naturally led to a desire for the vote. While the fight for woman suffrage had begun before the Civil War, Evans (1989) wrote that by the Progressive Era "the growing middle-class base of the woman's rights movement shifted suffrage from the periphery of women's organized activities toward the mainstream" (p. 155). In 1890, the National American Woman Suffrage Association (NAWSA) united the two factions of the woman suffrage movement previously divided by differing views on how to achieve their ultimate goal (Evans, 1989). Woman suffrage was finally considered a "respectable" issue by the 1890s (D. Schweider, personal communication, October 23, 1991).

However, as the question of woman suffrage became more pressing, the opposition organized, too. They argued that if women took part in public concerns, the separate sphere arrangement would be compromised, along with women's femininity. Women would need to study the issues in order to make voting decisions, which would draw them away from their domestic responsibilities. Homes and families of women who became active in the suffrage movement would suffer from
neglect. In addition, women's virtuous nature might become sullied by exposure to the vulgarity of politics. Opponents also argued that giving women the vote wouldn't make that much difference. On the other hand, if a woman's political views differed from her husband's, the result would be disharmony in the home. Finally, many believed that women didn't really want the vote anyway (D. Schweider, personal communication, October 23, 1991).

As in justifying their involvement in social reform, women turned to their advantage the social code that had restricted them so. They used their "differences" as reasons for why they should have the vote. Women argued that their superior morality would purge the filth and corruption that thrived in the wake of the industrial revolution. They felt their natural benevolence also qualified them for involvement with "the new social responsibilities of the state" (Evans, 1989, p. 154). It is interesting to note, however, that some suffragists appear to have been somewhat uncomfortable with this argument. In the article "Women and Men - On the Advantages of Candor" from the March 6, 1897 issue of Harper's Bazar, author T. W. H. cautioned women to avoid the faulty argument that women should have the vote because of their morality; women may well have avoided corruption as a result of their protected existence, which rather made a case for keeping the vote from them. In support of this argument, the author quoted Jane Addams as saying
Women have not wrecked railroads and perverted legislatures; and this not merely because they were women, but because they had no chance. When we have the ballot, we shall probably do many of the things that men do; and we shall perhaps lose some part of our reputation for superior morality. . . . But if we insist on social equality and equality of consideration, we must take the consequences that go with them. (p. 186)

In response to those who thought woman suffrage would undermine the separate sphere arrangement, suffragists reasoned that giving women the vote would instead restore the social order. Moreover, who could better look out for the concerns of women and children--such as children's education, exploitation of working women, and abuse of women by alcoholic husbands--than women themselves. Finally, in accordance with the philosophy of republican motherhood, suffragists argued that women needed to vote to properly demonstrate citizenship to their children (Evans, 1989).

As more women went to college and became active in the public domain, they viewed their right to vote as only logical (Evans, 1989). With the exception of the article just mentioned, the only item found on the subject of woman suffrage in the Harper's Bazar issues reviewed appeared in 1912. This tentatively suggests that woman suffrage was still quite controversial in the common view well into the first
decade of the twentieth century. The pro-suffrage article "Votes for Women" by Ida Husted Harper (1912) discusses the progress of the movement at home and abroad. Harper describes the recent enfranchisement of California women; in 1911, California was one of the first states to grant women full suffrage (Filler, 1972). After reviewing the positive changes the voting women of California might make, the author expressed the suffrage movement's growing impatience and frustration with the ambivalent feelings of their own sex with the closing statement, "Cannot the women in other states see the difference and realize how much more power they would possess for doing good if they had political influence?" (p. 148).

Women Enter the Professions

As a result of the expansion in higher education for women, some women graduates were able to flout convention and pursue a career in lieu of domesticity; these pioneers "gained a foothold in the professions that they have never relinquished" (Harris, 1978, p. 116-117). Women's advancement in the learned professions, however, fell short of their progress in higher education. As mentioned, marriage and a career were incompatible for women of the nineteenth century; choosing the one meant relinquishing the other (Gordon, 1987; Harris, 1978). It wasn't until the early twentieth century that gainful employment for married women became respectable, but only on the condition that they had no children; the idea
of a working mother remained "utterly foreign" (Kessler-Harris, 1981, p. 126). Regardless of the growing momentum of the women's movement, marriage was still the preferred choice among middle-class American women (Harris, 1978). Those who did pursue a career usually "retired gracefully" upon marriage (Evans, 1989; Harris, 1978; Kessler-Harris, 1981, p. 126).

**The Female Professions**

There emerged at this time a variety of "female professions," so named because of their compatibility with the traditional female role and subsequent acceptance as suitable employment for women. At first these professions consisted mainly of teaching and nursing, but later expanded to include social work, library science, and home economics-related occupations (Evans, 1989; Harris, 1978). The literature depicts these professions as mixed blessings. On the one hand they provided more opportunities in professional work for women; on the other hand they contributed to the gender division in the professions and were thus confining in their own right (Kessler-Harris, 1981). Harris (1978) wrote, "The women's professions were all underpaid and conferred little prestige among their members" (p. 118) and credits Susan B. Anthony with the observation that, "no profession filled with women would be prestigious as long as the female sex was considered inferior" (p. 119).

Harris (1978) pointed out that the struggle for suffrage that preoccupied the women's movement in the early twentieth
century removed much of the support that had previously existed for professional working women. The result was an eventual shift back to a more traditional ideology about women's social roles and a decrease in the number of career women. Women found an increase in professional opportunities with the advent of World War I, and as a result managed to destroy "remaining myths that women lacked the physical stamina or intellectual prowess for the most demanding jobs" (Kessler-Harris, 1981, p. 124). By 1920, however, professional working women still occupied "job categories that were heavily female," (p. 124) such as social work, welfare work, nursing, physiotherapy, dental hygiene, and "all of the non-supervisory aspects of education and library work" (Kessler-Harris, 1981, p. 125). According to Harris (1978), "of the women working in 1920, 11.9 percent were in the professions; 75 percent of this group were nurses or teachers. . . . Women made few inroads into the so-called higher professions--medicine, law and the ministry" (pp. 104-105).

**Medicine**

Of the professions women attempted in the late nineteenth century, medicine appears to be among those in which they made the most headway. Women's progress in this field has been attributed to the Civil War and the "enormous interest in and need for hospitals and doctors" which resulted (Jacobi as stated in Harris, 1978, p. 105). About this time, medical training for women began to improve substantially (Jacobi as
stated in Harris, 1978). As may be expected, the arguments for why women should not engage in intellectual pursuits were applied in the case against training women to be doctors; women were considered to be handicapped by their reproductive physiology (Harris, 1978). Harris pointed out that although the 1880 census registers 2,432 women doctors, "probably only a small percentage of them were genuinely professional in terms of their training and competence" (p. 108). However, as better education in medicine became available to them, women physicians began to be recognized; by 1876 the American Medical Association admitted women as members. Major hospitals admitted women to their lectures by the 1880s (Harris, 1978).

This positive trend did not continue. Co-educational medical schools began to form in the 1890s and there no longer seemed to be a need for women's medical schools, which subsequently began to close or merge with other institutions. What seemed like a triumph soon turned into a setback; the new co-ed medical schools set strict limitations on how many women could attend (Harris, 1978; Kessler-Harris, 1981). The result was a decrease in the number of women medical students between 1902 and 1926, and the number of women physicians, which "peaked at 6 percent of the national total in 1910," declined (Harris, 1978, p. 109). Again the ambivalent feelings surrounding a woman's right to widen her sphere--to
participate in the medical profession—is illustrated by this paradoxical situation.

Law

In addition to medicine, women began to enter the legal profession during the later nineteenth century. However, the field of law proved more difficult for women to break into than medicine (Harris, 1978). Harris wrote that "the legal profession was institutionalized and had been granted licensing powers much earlier" (p. 110) than the medical profession. Because women could not be lawyers under English common law, "the law had to be changed in each state by court decision or statute" (p. 110). On a psychological level, society found it even more difficult to accept women as lawyers than women as doctors. The role of physician seemed more compatible with women's established role as caretakers. Furthermore, women doctors "protected female modesty" (p. 110) by providing medical services to other women. Similar associations between woman's traditional role and the role of lawyer were more difficult to find. Accordingly, although there were 9,000 women doctors in the U.S. in 1910, only 1,500 lawyers were women (Harris, 1978).

This period, however, did see an improvement in the opportunities for women who wanted to practice law. In the 1880s "women sought and won admission to the bar in most states through court decisions or legislative acts" (Harris, 1978, p. 112). Also, with a few exceptions, law schools
became coeducational by 1891 (Harris, 1978). Thus, women's roles expanded to include that of lawyer, if only to a limited extent.

**College Teaching and Science**

Access to higher education also enabled women to occupy positions in academia. Accordingly, women began to secure faculty positions at colleges in the 1890s. Although women received 33.3 percent of graduate degrees granted in 1920, "only 7.9 percent of the professors in American institutions of higher learning were women" (Harris, 1978, p. 114). The reluctance of these schools to hire their own female graduates further demonstrated the ambivalence regarding women's roles and abilities. Women's colleges were naturally more willing to hire females (Harris, 1978).

In the early years of women's higher education, it was difficult to find a graduate school that would grant Ph.D.s to women. By the 1890s, "most graduate schools accepted women more willingly and granted them doctorates in large numbers" (Harris, 1978, p. 115). After graduate school, however, women's opportunities remained largely confined to academia, whereas their male counterparts had the additional option of working in industry. Even in their academic positions, women were still "concentrated in lower positions at less prestigious institutions" (p. 115). It wasn't until World War I that a female scientist would work in industry (Harris, 1978).
Other Professions

Women's social reform activities in the late nineteenth century qualified them for the evolving social service professions of the Progressive Era. Their roles as moral guardians and "social housekeepers" lent them a degree of expertise in achieving the Progressive goal of saving a corrupt society (Kessler-Harris, 1981). Women occupied positions such as "factory inspectors, child labor investigators, visiting nurses, and truant officers," and were able to obtain "jobs in bureaus of labor statistics and the personnel offices of large industries" (Kessler-Harris, 1981, 120-121.)

Between 1860 and 1920, some women found success in business (Harris, 1978). Harris observed that women from a wider range of social classes were able to enter the business field because formal education was not a prerequisite. According to Kessler-Harris (1981), it became acceptable for women to take courses in banking, business, and management on the condition that, like the other "Helping professions"--teaching, nursing, and social work--"they were rooted in virtue and not in ambition" (p. 121).

The Progressive Era's interest in qualified social workers and other professionals in helping achieve its goals lent renewed justification to higher education for women (Kessler-Harris, 1981). Kessler-Harris wrote
In the period from 1890 to the First World War--the height of the progressive period--the number of women who sought professional training multiplied. Although three quarters of the new professionals became teachers and nurses, the numbers in traditional professions like law, medicine, and science climbed, reaching their peaks around 1910. (p. 121).

This expansion in professional opportunities for women must be kept in perspective, however. Harris (1978) noted that by 1920 women were still only "a tiny, isolated minority in all of the learned professions. Less than 8 percent of the college professors, 3 percent of the lawyers, a small fraction of the doctors, and a mere handful of ministers were females" (p. 117). Women's achievements in the professions occurred in an atmosphere of prejudice, and a general tolerance for professional working women would be slow in coming (Harris, 1978). Women had effected enough change, however, to leave the question of women's roles much more open than before and to make it possible, if difficult, for a woman to earn a living working in a profession.

**Popular Thought on Beauty and Conduct**

Accepted notions of women's social role may often be glimpsed in the fashions and beauty ideals of a given time. Therefore, insights can come from popular views on feminine
beauty and how these standards of beauty reinforced and reflected prevailing notions on women's place in society.

**The Ethereal Victorian Beauty**

At the beginning of this review, the cult of domesticity was identified as a set of ideas that shaped white, middle-class American women's roles in the nineteenth century. In her book *American Beauty* (1983), Lois Banner discussed the "steel-engraving lady," named after popular nineteenth-century lithograph illustrations of women, as the personification of the middle-class Victorian lady. She described the steel-engraving model of beauty as follows:

Her face is oval or heart-shaped. Her eyes gaze into the distance or are downcast. Her chin is soft and retreating. Her mouth is tiny, resembling a "beestung cupid bow" or a "rosebud," as contemporaries described it. Her body is short and slight, rounded and curved. Her shoulders slope; her arms are rounded; a small waist lies between a rounded bosom and a bell-shaped lower torso, covered by voluminous clothing. Her hands are small, her fingers tapering. Her feet . . . are tiny and delicate. (p. 46)

The steel-engraving lady possessed beauty of a fragile and ethereal quality. Physical frailty in women, which apparently was sometimes feigned for the sake of fashion, was thought to indicate moral superiority. Such delicacy of body, in
addition to nineteenth century fashions for women that were at once restrictive and cumbersome, greatly limited a woman's suitability for practical activity. This rendered her dependent upon the services of others, such as her husband, her father, or her servants. In this sense, the steel-engraving lady reflected a genteel, high status type of beauty (Banner, 1983).

The Sensual Victorian Beauty

While the steel-engraving lady would continue to represent a popular standard of beauty into the late nineteenth century (Banner, 1983), other ideals would develop that would represent not only the changing views about women, but the growing ambiguity about what was considered attractive. Banner identified the "voluptuous woman" as an alternative type of feminine beauty with lower-class origins that became popular in the early 1870s. This more sensual model was commonly depicted in popular art, as in the paintings of Bourguereau. Banner also credited contemporary medical thought, which viewed plumpness as a sign of good health, and the fleshy European fashion leaders and burlesque performers with the advancement of the voluptuous ideal.

Not only did the voluptuous woman differ from her more fragile predecessor in the matter of physical appearance, but also in the matter of attitude. The voluptuous woman, as portrayed by British burlesque performers, "was as energetic and emancipated as she was erotic" (Banner, 1983, p. 127),
characteristics she would share with the new woman of the 1890s. American soprano Lillian Russell would become a popular, more refined version of the voluptuous woman in the late nineteenth century. However, the sensuality of the voluptuous model called into question its allure, and eventually a more athletic model came into vogue. By the turn of the century, the voluptuous woman was once again a lower-class image with lewd associations (Banner, 1983).

**The Natural Victorian Beauty**

In the 1880s, the natural or athletic look was made popular by the growing interest in physical fitness for women and the acceptance of a classical look which was typified by the famous British actress and society beauty Lillie Langtry, also known for the romantic attachment she once shared with Edward, Prince of Wales. The Grecian-style nose, one of Langtry's striking characteristics, began to be depicted in fashion illustrations appearing in 1880 issues of *Godey's Lady's Book* and *Harper's Bazar*. While Americans were at first ambivalent toward Lillie Langtry and her style of beauty, the natural look she represented eventually came into vogue in 1880s New York society (Banner, 1983).

The natural look was also advanced through the growing popularity of athletics for women. Although educators such as Catherine Beecher advocated physical fitness for women earlier in the nineteenth century, the movement did not take hold until the 1880s. Before then, concerns regarding physical
fitness for women included the toning and slimming effect athletics might have on the popular voluptuous look, not to mention the unfeminine movements and perspiration it would require of young ladies. It was in the mid- to late-eighties, however, that recognized health authorities endorsed healthful physical activity for women, and women's colleges began to include athletics in their programs of study. Also inspiring a change in attitude about physical exercise for women was the introduction of the bicycle. The bicycle eventually became associated with other changes in women's lives, too; it gave women a means by which to get out and about, and it required women to wear clothing that was less confining. By the time the new woman was established in the 1890s, the woman cyclist became a more conventional image (Banner, 1983). Popular acceptance of physical exercise for women is also evidenced by the presence of a feature called "The Outdoor Woman" in 1897 issues of Harper's Bazar, which discussed women's golf, cycling, and tennis.

By the turn of the century, the acceptance of physical fitness for women had led to the decline of the voluptuous look. American women embraced exercise in the natural course of their claim on activities that would give them an equal footing with men (Banner, 1983). While Lillie Langtry provided a high society model for the natural look, Banner pointed out that the New York elites were followers rather than leaders in their adoption of athletics and the bicycle.
The natural look seemed to become popular across social classes, albeit for different reasons.

These three models of late nineteenth century feminine beauty identified by Lois Banner (1983) seem to reflect American society's struggle with the qualities they wanted their women to possess. The changing ideal of beauty seems to indicate a movement from a more idealistic, other-worldly type of beauty in the steel-engraving lady, to a much more earthy and human one in the voluptuous model, and finally to the healthiest and most capable model, the natural woman. Both the steel-engraving model and the voluptuous model personified women of generations caught in the cult of domesticity. Their respective types, whether frail and sickly or plump and erotic, suggest a more passive type of woman, one who did not appear to be particularly suited to taking an active role in her own well-being or in affairs outside of the home. The natural woman came into vogue at a time when women were beginning to take more interest in such things; her success as a standard of beauty was probably due, at least in part, to this change in attitude.

The New Woman and the Working Girl

As with any one standard or ideal, many American women undoubtedly felt it a struggle to adhere to the cult of domesticity. While a portion of women probably lived comfortably within its doctrines, Barbara Welter (1976) wrote
of a similar philosophy she called "the cult of true womanhood" that

Real women often felt they did not live up to the ideal of True Womanhood: some of them blamed themselves, some challenged the standard, some tried to keep the virtues and enlarge the scope of womanhood. Somehow through this mixture of challenge and acceptance, of change and continuity, the True Woman evolved into the New Woman. . . And yet the stereotype, the "mystique" if you will, of what woman was and ought to be persisted, bringing guilt and confusion in the midst of opportunity. (p. 41).

The "new woman" was the product of a variety of trends. Attainment of higher education, active participation in organizations, a growing interest in woman suffrage, and a gradual infiltration of the professions were all ways in which women were breaking out of their previous confines and taking a more active role in the public sphere. In addition, Banner (1983) wrote that "By the 1890s, standards of propriety predominant in the 1870s and 1880s were eroding. . . . By then commercialization and the pleasure ethic were making inroads in all aspects of American life" (p. 175).

This "pleasure ethic" was an important characteristic of the new woman and her working-class counterpart, the working girl (Banner, 1983). Banner credited three groups of
individuals with the introduction of "sensual behavior" to late nineteenth and early twentieth century Americans: actresses, "society men who were attracted by the subculture of sensuality" (p. 175), and young, working-class singles who sought various forms of public amusement in their spare time. The actress and especially the chorus girl--a popular figure at the turn of the century--exhibited an independence, self-confidence, and pleasure-seeking personal style that many women found appealing. They also offered proof that women could find success and upward mobility in a career. Young, urban, working-class men and women found diversion through various forms of commercial recreation; dance halls, amusement parks, nickelodeons, and eventually movie theaters became accessible sources of "entertainment that challenged prudery and advertised sensual pleasure" (p. 195).

The pleasure ethic was adopted by middle- and upper-class Americans, too. The middle class was somewhat hesitant, indulging themselves in some forms of enjoyment, yet declining others that seemed too daring or risque. Banner observed that "some middle-class women were willing to take up exercise and reform dress and even seek employment; yet they would never wear makeup or go to an after-theater dinner" (1983, p. 190). Their pursuit of pleasure included activities that, by present day standards, seem somewhat restrained, such as reading the society columns, shopping at department stores, or attending a vaudeville matinee. The increase in divorce among the middle
class around the turn of the century was attributed to women who, in embracing the pleasure ethic, wanted freedom from unsatisfying marriages. High society women also practiced the pursuit of pleasure with mixed emotions. While many adhered to the established code of behavior, a few obtained divorces or lit cigarettes in public. Though the upper class lagged behind the lower classes in its relaxation of social conduct, the changing attitudes were felt nonetheless (Banner, 1983).

Though primarily a middle-class figure, the new woman came to represent a variety of American women—"she could be found among athletes, college students, reformers, and businesswomen" (p. 187). It was the self-confident, assertive demeanor and the "desire for pleasure" (p. 187) that marked her character. Despite their negation of many of the Victorian ideals, new women of all social classes still embraced a certain number of traditional values. Especially among the middle class, simply having the right attitude seemed to qualify a woman as "new"; the label was not restricted to career women or social reformers. A mixture of traditional and progressive behaviors was evident in new women; beliefs about appropriate behavior varied among them. By nature an ambiguous figure, "no single set of qualities characterized the new woman" (Banner, 1983, p. 187-188).

Barbara Welter (1976) observed that women's magazines sensed the confusion about women's proper role, and tried to convince their readership that woman's true place was her
traditional place—the domestic sphere. Toward this end, they generally provided—again, in comparison to present day standards—rather flowery prose in argument for women's undivided commitment to home and family.

An article from an 1891 Harper's Bazar, called "The Better Part," provides a good example. The author recognized the expanding role of woman—"the sphere of her duties seems to have enlarged enormously" (p. 170). However, she should "take account of her stock in trade, of her mental endowments, her capacity, and her strength, and from these let her select what is best for her to do and to be" (p. 170). The author concluded that a woman's home—"that trinity of husband, children, and self—is her better part," and that she should "turn her back upon all those ambitions foreign to this purpose" (p. 170). The reader was warned against thinking her domestic duties insignificant, and adopting the ambitions of "other women whose aims are not like hers" (p. 170). In direct contrast with the philosophy of the women's movement, the message was that women should not become distracted by worldly interests, but stay focused on and contented with the domestic sphere.

A more moderate attitude was expressed in the article "Two Surprises of Women" from an 1897 issue of Harper's Bazar. Author Mary R. Baldwin identified the two surprises of women as being (1) the giving and receiving of love, and (2) "the discovery of latent powers" (p. 816) or, apparently,
intellectual stimulation and ability. Baldwin cautioned that with the advent of the second surprise, "just here is where a danger presents itself" (p. 816). Women may be tempted to neglect the giving and receiving of love in favor of nurturing their intellectual powers. According to the author, "women have imperilled their homes and their very souls because lacking the perception that would have discovered, both for heart and mind, the true course" (p. 816). Women who rejected "love" in favor of "mind" entered "the wider domain . . . stripped of all the softness and sweetness engendered by the surrender to the service of love" (p. 816). Finally, the author advised walking "between the two surprises" (p. 816), embracing both the need for love and the need for intellectual stimulation.

Katherine DeForest expressed another concern regarding the new woman in her 1897 article "On Woman's Looks." She pointed out that "in her transformation from ignorance to scholarship woman has oftentimes become an intelligence, but ceased to be a delight. She has cultivated her intellect at the expense of her grace of person and charm of manner" (p. 830). DeForest contended that matters of personal appearance are of importance to a woman in addition to her "serious side" (p. 831). She wrote that, according to the book Ascent of Woman by Mrs. Roy Devereux, "as a woman ascends--that is, as she develops intellectually--her sensibility, her feminine
potentiality, her love for beauty, and the expression of all these in her outward garb, should keep pace with her growth” (p. 831).

The 1897 article "Women in the New Era" expressed a yet more progressive viewpoint. The author assumed that it was now the role of all women to be gainfully employed. Professions should be studied in earnest, not as hobbies or temporary employment to be undertaken until "the Prince" appeared. The reader was cautioned that one's husband may be poor or become ill, in which case a woman might need to go to work to keep the family going. According to the author, the great advantage to women in the "modern era" was that they would no longer suffer social ostracism for working outside the home; paid employment for women was now socially acceptable.

Changes that were occurring in the lives of middle class women in the 1870s and 1880s were limited enough to be considered fairly innocuous to the status quo. However, the number of articles found in 1890s issues of Harper's Bazar that dealt directly with what a woman's role should be indicates the prominence of the question by that time. The differing views espoused by the authors in the articles mentioned reveals mainstream society's struggle to come to terms with the new woman.
The Gibson Girl

The Gibson girl, creation of illustrator Charles Dana Gibson, is a familiar image associated with turn-of-the-century American popular culture. She appeared in Gibson's illustrations, known for their satirical social commentary, which could be found in popular magazines of the day, such as *Life* and *Collier's*. A tall, commanding figure, the Gibson Girl, according to Banner (1983), was of the "natural" type. While she came to represent the ideal in feminine beauty at this time, exactly who she was meant to be was somewhat unclear (Banner, 1983). The ambiguous identity of this late nineteenth-early twentieth century model of American womanhood may be considered indicative, much like that of the new woman, of the increasing lack of clarity surrounding women's social roles.

The Gibson girl and the new woman have been considered to be one and the same; however, the two figures have striking differences as well as similarities. In considering the qualities shared by these two figures, it is easy to see why the Gibson girl was often taken as a symbol of the new woman. The Gibson girl's appearance was strong, stately, self-confident and self-possessed; inner strength and self-confidence were also hallmarks of the new woman. The Gibson girl had pretty facial features that suggested an underlying sensuality and seductiveness; the new woman was associated with pleasure-seeking behavior, and had a more assertive
approach to members of the opposite sex than the proper Victorian lady. In some of Gibson's illustrations, the Gibson girl was depicted playing golf or engaged in some other form of athletics; the new women were strong supporters of athletics and physical fitness for women. When shown pursuing these healthful activities, the Gibson girl sported the simple shirtwaist and skirt associated with reform dress; the shirtwaist blouse, worn with a skirt, was mass marketed in the 1880s and 1890s in response to the growing number of new women who engaged in sports or paid employment outside the home (Banner, 1983).

There were also, however, important differences between these two figures. The Gibson girl was associated mostly with the upper class. Gibson tended to portray her in high society milieus--"at balls, the opera, or the Madison Square Garden Horse Show that opened the New York social season; in huge elegant drawing and dining rooms; on ocean liners; at the Royal Court in London" (Banner, 1983, p. 158). Gibson was "a close student, especially of the airs, the mendacities, the gilded show of society in general, and of womankind in particular" (p. 288), and these are common themes in his illustrations, along with "love, courtship, marriage, and . . . quarrels" (p. 290) among the elite (Morton, 1901). Even in athletic scenarios, the Gibson girl was usually involved in some sort of love-related encounter or dilemma (Earnest, 1974). Banner wrote that "she was rarely portrayed as a
working or college woman. Gibson never showed her as a settlement house or social worker" (p. 156), two roles commonly associated with the new woman. Those illustrations which touched on the progressive changes in women's lives were satiric rather than supportive (Earnest, 1974); Gibson himself was "unsympathetic to organized feminism" (Banner, 1983, p. 157).

In contrast, the new woman was largely a product of the middle class. As mentioned, the original new women were among the first generation of female college graduates, many of whom chose a career over marriage and children. Initially, the new woman seemed to be marked by unconventional behavior as well as attitude, taking a distinctly different path in life than the traditional one outlined by the cult of domesticity. The Gibson girl rarely challenged convention, her ultimate goal usually being a good marriage (Robert Grant as stated in Banner, 1983).

As mentioned, the Gibson girl and the new woman were both ambiguous figures with which women from various segments of society were able to identify. In addition to a romanticized version of the Progressive Era college girl, the Gibson girl became a non-threatening representation of the many changes that were occurring in women's lives. She was a compromise between the proper Victorian lady and the educated and emancipated new woman. She seemed to belong to the wealthy upper class, but also possessed many of the progressive
characteristics of the middle-class new woman and the working girl (Banner, 1983). She made the attitudinal changes in women seem attractive, and, for the most part, denied the more intimidating, substantive changes. Banner wrote, "In many ways the independence of the Gibson girl did not go much beyond playing sports, wearing comfortable clothing, and looking self-reliant" (p. 157).

Also contributing to the Gibson girl's ambiguity was her tendency to embody conflicting personality traits. To some observers, she was innocent, yet to others she was "worldly wise, a 'tomboy,' 'slangy,'" and "'self-assured'" (Banner, 1983, p. 157). Some thought "'Her creed was modesty . . . to the average American male she was an aloof dream girl'" (Helena Rubinstein as stated in Banner, 1983, p. 157), yet to others she was clearly erotic, "'a perfectly pagan thing'" (Winfield Scott Moody as stated in Banner, 1983, p. 157). Such inconsistent interpretations of her character also underscore the Gibson girl's ambiguity. And, as Banner observes, this ambiguity was perhaps the reason for her popularity; a variety of views on what a woman should be found expression through the Gibson girl.

The Gibson Girl Gives Way to the Flapper

As mentioned, the early twentieth century was marked by an increased drive toward pleasure, satisfied by a variety of public forms of amusement; amusement parks, theaters, and dance halls all became favorite haunts. In the city, young
men and women met more easily and without chaperones (Evans, 1989). Eventually, the subject of sex was discussed more openly; Havelock Ellis and Sigmund Freud contributed to a greater understanding and acceptance of sexuality in women (Gordon, 1987; D. Schweider, personal communication, November 13, 1991). As a nurse to women who suffered physically and mentally from repeated unwanted pregnancies and self-performed abortions, Margaret Sanger became a leader in making birth control available to women and bringing the need for contraception into the public consciousness (Kerber & De Hart, 1991). In addition, in contrast to Victorian ideas on matchmaking, marriage based on compatibility and romantic love became the norm (D. Schweider, personal communication, November 13, 1991).

Women's fashion and standards of beauty accommodated these changes. The "look" for women shifted "from the hourglass figure of the Gibson girl to a slender, smaller silhouette no longer weighted down by corsets" (Evans, 1989, p. 161). As early as 1913, the flirtatious flapper was becoming the image for the times (Banner, 1983; Evans, 1989). Single working women came to be known as "bachelor girls," a term with an agreeable connotation. The working girl became a popular fictional character, and the "vamp," a somewhat dark, erotic female figure, appeared in movies (Evans, 1989). Evans noted, however, that despite these changes, after marriage middle-class, educated women tended to return to the domestic
life, albeit with the resources to pursue a way of life
different from the one defined by the cult of domesticity.

Conclusion

In summary, the late nineteenth and early twentieth
century saw a gradually increasing controversy about the
social role of middle-class, white women in America. The
expansion in higher education for women that began at the
outset of this period was an important enlargement of women's
sphere, not only in and of itself, but because it generated
more opportunities for women. Education cultivated women's
abilities and desires to participate in the affairs of the
world. Women penetrated, if only to a limited extent, a
variety of professions, and carved out new public spaces and
occupations in which they could be active. Club life drew
women together for the purpose of social and intellectual
stimulation, and to engage in a variety of benevolent
endeavors. With an educated mind and a drive to be useful, in
an atmosphere that was still hostile to the woman
professional, women occupied themselves with work in
settlement houses, became active in politics and social
reform, and developed the occupation of social work. This
increased awareness of society's ills and a developing sense
of relevancy to public affairs led to a fight for the vote.

At the same time these changes were occurring, standards
of beauty in women also shifted from the delicate steel-
engraving lady and the fleshy voluptuous woman to the more
healthful "natural" look, which seemed to be in keeping with the strong and capable new woman image of the 1890s (Banner, 1983). At the turn of the century, the popular Gibson girl—despite her corseted waist, long skirts, and pompadoured coiffure—cut a formidable, almost Amazon-like figure and possessed a distinctly self-confident air that was a far cry from the retiring steel-engraving model. It wouldn't be until the flapper came on the scene in the 1910s that women would begin to be liberated from corseting and long skirts, as well as the stricter forms of the Victorian social code.

As these changes came about, the cult of domesticity in its pure form gradually became a thing of the past. Ideas stemming from this social code never fully disappeared, however, and continue to influence social customs to this day. What is important to the present study is that the changes that occurred in women's lives from approximately 1873 to 1912 challenged the cult of domesticity's definition of what a woman should be and created an ever increasing ambiguity about woman's social role. For this reason, women's role change during this period provides a suitable context in which to examine women's changing fashion for evidence of increasing diversity; such evidence would support the ambivalence theory of fashion change.
The present research required the development of methods for gathering data from the pictorial evidence of fashion illustrations. Such a visual analysis of dress involves a systematic, concise way of recording features of the illustrated garments. This method allows researchers to define fashion at given points in time, thus allowing them to document fashion change, detect trends or cycles, and measure variation.

The purpose of this chapter is to survey previous studies of fashion which have utilized a visual analysis method for collecting data. The studies reviewed will be grouped according to the highest level of measurement used in recording garment characteristics. For each study surveyed, the following will be considered: the purpose of the research; the nature of the sample for analysis; the general visual analysis method, including the levels of measurement used and the dress features analyzed; and the findings. Finally, the various methods will be discussed as they pertain to the visual analysis method developed for the present study.

Nominal Measurement in Visual Analysis

In studying the stylistic changes in dress, researchers have analyzed pictures of fashions by singling out garment features of interest (e.g., sleeve style, silhouette) and then categorizing those features by type (e.g., for sleeve style: bishop sleeve, coat sleeve, pagoda sleeve, etc.). This would
constitute a nominal scale of measurement, where categories may be coded or represented by numbers. In this method of data collection, the numbers themselves would have no numerical value, but would merely serve to label the feature category or type.

Behling and Dickey (1980) employed such a method in their study of the changes which took place in haute couture from 1900 to 1925 and the designers who influenced those changes. Their sample consisted of 822 slide photographs of fashions taken from 17 French periodicals and books which were published during the period of interest and related to fashion, art, and theater.

The source and date of each illustration, in addition to the designer's name, were recorded. Features of the fashions analyzed, along with some of the categories identified, included neckline style (e.g., decolletage, high neck), hemline style (e.g., train, small train), sleeve length (e.g., short, elbow, long), silhouette (e.g., "S," empire), and color (e.g., white, yellow, rose). The data were recorded on charts and studied for the "identification of major fashion trends and/or influential designs" (Behling & Dickey, 1980, p. 431). The authors concluded that important changes in fashion which occurred over the 25 years were attributable to a variety of individuals, including artists such as Iribe, Lepape, Bakst, and Erte, as well as the couture houses of Doucet and Lanvin.
In her study of nineteenth century headgear using a "seriational technique," Turnbaugh (1979) also used nominal measurement in recording stylistic changes in bonnets. Turnbaugh collected data from all fashion plates and bonnet diagrams appearing in each issue of *Godey's Lady's Book and Magazine* from 1830 through 1898. She conducted a content analysis of the pictures, and recorded the frequency of different illustrated bonnet styles based on the bonnet structure shape.

For analysis of the data, a type of bar graph was made where frequency of headgear type was plotted on the horizontal axis, and time was plotted on the vertical axis; each style of headgear had its own vertical column made up of horizontal bars. Where the bars were widest, it was interpreted that the style reached its maximum popularity. Turnbaugh identified 21 varieties of bonnets based on shape, and grouped these into four general categories: "The pamela, the capote, the bibi, and the crownless bonnet" (Turnbaugh, 1979, p. 244). The duration and popularity of the various styles of headgear were documented and discussed.

In an effort to determine whether patterns of stability and change in fashion corresponded with periods of social stability and change in France from 1715 through 1914, Robenstine and Kelley (1981) also used nominal measurement in coding fashions of that period. Their sample consisted of 112 photographs of men's and women's costumes of French origin.
taken from portraits and fashion illustrations of the period. The years from 1715 through 1914 were divided into seven periods, and each period was categorized as being a time of institutional stability or change and political stability or change. The authors noted that "the illustrations were spaced as evenly as possible throughout each period, and the fashions of each sex were chosen to match years as closely as possible" (p. 81).

The features of the garments coded, along with some of their respective categories, included skirt silhouette (e.g., bell, back-fullness, tubular), design line (linear, curvilinear, and angular were combined with vertical, horizontal, and oblique), neckline (e.g., extremely high, natural, lowered), armscye/shoulder treatment (natural, narrow, and broad), sleeve style (bell, full, tubular/body conforming, etc. were combined with length--short, elbow/forearm, wrist, etc.), and waistline (e.g., natural, raised). New categories were created to describe the various features when needed. It is worth noting that the researcher deemed ornamentation, fabric design, and accessories as "too complex or too sketchy to be included in hypothesis testing," (Robenstine & Kelley, 1981, p. 81).

Response categories for each feature appear to have been assigned a numerical value for identification purposes only. The costume characteristics were recorded in code books and "then prepared for a computer frequency printout by noting
whether changes occurred from one observation to the next within each time period for each feature of each costume for each sex" (Robenstine & Kelley, 1981, p. 82). Between sequential observations, a change in the style of a given dress characteristic was assigned a value of 1 and no change was assigned a value of 0. For each time period, the total number of changes between chronologically adjacent garments in all six characteristics were then counted; the frequency of the number of changes per garment was recorded. Data were pooled by sex and by periods of stability and periods of change, and maximum likelihood ratio tests were conducted on the pooled data. No evidence was found to support the hypotheses that patterns of stability and change in fashion coincided with patterns of institutional stability and change or political stability and change.

Ordinal Measurement in Visual Analysis

In addition to nominal measurement, ordinal measurement has also been used in the visual analysis of dress. This level of measurement may be employed when the different categories of the garment feature may be ranked in relationship to one another. In her study of the cyclical change in women's daytime dress from 1860 to 1980, Belleau (1987) combined nominal and ordinal measures in her visual analysis. The sample consisted of 489 fashion illustrations from selected monthly issues of Godey's Lady's Book, Harper's
Bazaar, Vogue, and the New York Times; four illustrations represented each year.

For each illustrated garment, six garment features were coded. The features, along with examples of their respective response categories listed in ascending scale value, included skirt length (train, floor, ankle, calf, etc.), waist emphasis (dropped at front, dropped, natural, raised), silhouette (back fullness, tubular, bell, etc.), sleeve fit (close, moderately close, full), bodice fit (close, moderately close, full), and skirt fit (close, moderately close, full). Silhouette and waist emphasis appear to be nominal level scales as the categories within a feature cannot really be ranked in comparison to one another. The response categories of the remaining characteristics seem to indicate an ordinal level of measurement.

For each year and dress feature, Belleau averaged the scores from the four fashion illustrations (it is unclear why she averaged the nominal data, in which case an average would have no meaning). Cross tabulations depicting response categories of dress features by decade, and time-series graphs plotting yearly averages over time were examined for evidence of cyclical fashion change. Spearman rank correlation coefficient was used to test for relationships between garment features.

Ultimately Belleau selected only three of the six garment features—skirt length, waist emphasis, and silhouette—for
hypothesis testing as "it appeared that they represent areas in a garment where revolutionary or visually dramatic changes occur over a long period of time and long run trends may be apparent" (Belleau, 1987, p. 17). Based on her analysis, Belleau claimed to have found evidence of cyclical fashion movement in women's day dresses from 1860 to 1980, with relationships among stylistic changes in certain garment features.

**Ratio Measurement in Visual Analysis**

In addition to nominal and ordinal scales, some visual analyses of dress have physically measured illustrations of garments using a ruler, thus achieving a ratio level of measurement. Such an approach was used in Richardson and Kroeber's (1940) study of stylistic changes in women's evening dress. Measurements were taken of six dress features from fashion plates using "calipers and ruler in millimeters" (p. 112). To make the measurements comparable, they were converted to percent proportions of the total figure length, which was measured from the center of the mouth to the forward toe. The six feature measurements included length of skirt or dress (measured from the mouth to the bottom of the skirt center front), length of "waist" or bodice (measured from the mouth to the narrowest point in the waist area), decolletage or neckline length (measured from the mouth to the center front of the upper bodice edge), skirt width (measured across the hem), waist width (measured across the narrowest area at
the waist), and decolletage or neckline width (measured at the
shoulder level).

From these measurements, means were calculated for each
feature dimension by year. Means were then combined into
averages for ten-year blocks of time. Moving averages were
calculated by averaging means for a given dimension from two
years prior to two years after a given year. These averages
were computed to minimize the "exceptionalness" of any
single year by merging it with the adjacent years, resulting
in a smoother curve.

Means were recorded on charts by feature dimension for
each year and for ten-year periods. Moving averages for each
year were also charted. The data were evaluated to give a
descriptive history for each of the dress dimensions. The
recurrence of styles was also examined by looking for "crests"
and "troughs" (Richardson & Kroeber, 1940, p. 130) in the data
and examining the length of time between maximum and minimum
points. In addition, the variability and stability of styles
were examined two ways. A year-by-year comparison of the
standard deviation of the means for each trait served as one
indication of stability and instability. Also, a percent
deviation was calculated from the annual average divided by
the trend or moving average for the same year for an
indication of variability in fashion features with a year.
Richardson and Kroeber found recurring styles in fashion based
upon their measurements and evidence of increased variation in styles during periods of social and political unrest.

Elizabeth Lowe (1984) also used Richardson and Kroeber's (1940) approach in her examination of women's evening apparel to evaluate the consistency between theories about aesthetic rules and empirical reality. Her sample was drawn from high fashion publications issued between 1926 and 1980. As in the Richardson and Kroeber (1940) study, she measured skirt length, waist length, decolletage length, skirt width, waist width, and decolletage width and converted these measures "to ratios of the dimension, divided by the total height of the figure to provide comparability of data" (Lowe, 1984, p. 170). These ratios were then examined for their uniformity and compared to aesthetic rules.

The two types of rules Lowe examined were monadic, which dealt with the distribution of cases along a single dimension, and dyadic, which described the relationship between two dimensions. Monadic rules were depicted as histograms where the frequency of cases (or garments) having a certain measurement were plotted. The histograms were studied to see which measurement or measurements occurred most frequently for the various dress features. Dyadic rules were depicted on scatterplots where measurements of two features were plotted against each other. The scatterpoints were evaluated to see if they clustered around lines representing the various rules.
of proportion. Data revealed that the evening apparel designs
did not consistently adhere to aesthetic rules.

Both ratio and nominal scales were used by Lynne Richards
(1983-84) in her study to verify whether hemlines in women's
daytime dress became shorter throughout the 1920s. Her sample
consisted of 1,978 fashion illustrations and photographs from
issues of Good Housekeeping published between 1920 and 1929.
In addition to measuring the total body height "from mouth to
base of the foot that appeared to carry the greatest
distribution of body weight," Richards took measurements "from
mouth to skirt hemline, from mouth to uppermost waist/hip
horizontal line, and from mouth to next lower waist/hip
horizontal line" (p. 43), if a lower or secondary waist/hip
horizontal line was suggested. These measurements were
converted to percentage of total body height. In addition,
Richards nominally recorded specific design features (i.e.,
belts, trimming, etc.) used in creating a secondary horizontal
line at the hip, the frequency of long overskirts, and whether
the garment was depicted in a drawing or photograph.

Yearly averaged locations of the hemline and the
uppermost waist/hip horizontals as represented by percentages
of total body height were listed chronologically. From this
list, the change in hemline length and hipline location over
the nine years were traced. Also examined were the yearly
frequency of a secondary waist/hip emphasis in addition to its
average location, the frequency of long overskirts, and
various design features used to create a secondary waist/hip emphasis. Finally, correlations between the three variables of hemline location, uppermost waist/hip location, and secondary waist/hip location were conducted to examine relationships.

Richards found that while hemlines grew higher generally over the period, they dropped between 1922 and 1923 before they began to rise, and that the publication of longer skirts occurred one month before the stock market crash. A lowered waist/hip horizontal emphasis was also seen in the fashions, which dropped between 1920 and 1925, and then rose steadily thereafter. The author wrote that "a modest inverse relationship was noted between the fluctuating positions of the waist/hip design features and hemline locations" (Richards, 1983-84, p. 48). The trends in design features as secondary waist/hip emphasis and the appearance of overskirts were discussed.

Creekmore and Pedersen's (1979) study of body proportions in fashion illustrations between 1840 and 1940 as compared to the Greek ideal also involved measurement using ratio and nominal scales. Fashion figures were measured using the Greek system, which defines body proportions in terms of head lengths. The sample was drawn from Godey's Lady's Book, Peterson's, Harper's Bazaar, and Vogue magazines. The authors wrote that 309 total issues of the magazines combined were included in the study, using the first five illustrations
which appeared in each issue. Therefore, it is implied that 1,545 individual illustrations were measured.

The body measurements taken included "total height, torso length, waist to floor length, waist width, and shoulder width," (Creekmore & Pedersen, 1979, p. 382); proportions were obtained by dividing these measurements by the figure's head length. In addition, nominal measures were used to collect data pertaining to the figure's shoulder slopes; categories included square, natural, and sloping, and were determined by "the size of the angle created by a line drawn at right angles to the neck column and the shoulder line" (p. 382). Face shapes (oval, round, or angular) and hairstyles (short, medium, long, worn up, and worn partially up and partially down) also were categorized.

The researchers divided the sampled years into three silhouette periods—bell-shaped, back-fullness, and tubular—separated by comparatively shorter transitional periods. For each period, univariate analysis of variance was used to evaluate the difference between Greek ideal body proportions and the body proportion means obtained from the fashion illustrations. Multivariate analysis of variance was used to evaluate the difference in body proportions between periodicals and the change in mean body proportions within periods. Change in types of shoulder slopes, facial shapes, and hair styles within each time period was evaluated using chi-square analysis.
Findings included that the Greek ideal did not consistently appear in fashion illustrations between 1840 and 1940. Evidence of change was found in the mean body proportions, shoulder slopes, face shapes, and hairstyles throughout the sampled time frame, and was not confined to periods of transition.

Both ratio and nominal scales were also incorporated in the visual analysis used by Littrell and Evers (1985) in their study of liturgical vestments and the priest role during the 1950s through the 1970s. The purpose of the study was to see whether diversity in vestment design increased during the 30 year period, and whether changes in the priest role were reflected by changes in vestment design.

Littrell and Evers analyzed photographs of 680 chasubles produced by the St. Francis Convent in North Dakota between 1950 and 1980. Because the structure of the chasuble stayed basically the same through the time period, the change in surface embellishment was the focus of the study. Five features of the surface embellishment were measured. Two ratio scales included percent of embellishment, which was measured using a grid whereby the number of squares filled with embellishment were divided by the number of squares filled by the chasuble as a whole, and number of motifs observed. Nominal measures included design organization, which had 21 response categories, embellishment techniques
(e.g., stitch type and density, applique techniques, etc.), and motif content (e.g., crosses, plants, etc.).

To analyze the data, diversity in vestment design based on percent of embellishment and number of motifs was measured using standard deviation. Diversity based on design organization, embellishment techniques, and motif content was measured using a statistic "based on the Pearson chi-square" (Littrell & Evers, 1985, p. 155). Means and frequencies of the design features were examined for evidence of changes in vestment design which were consistent with changes in the priest role. Results indicated that vestment design was more diverse during the 1960s, when the priest role was ambiguous, as indicated by percent of embellishment, number of motifs, and design organization features. The change in relations between priest and laity which occurred between the 1950s and 1970s was determined to be reflected in the decrease in percentage of embellishment, decrease in number of motifs, and simpler design organization of the vestments produced toward the latter part of the period.

Suitability of Past Visual Analysis Methods to the Present Research

Instrument Power in Evaluating Diversity in Dress

Like Littrell and Evers' (1985) study, the present research is concerned with relative changes in the amount of diversity evidenced in clothing over a specific time frame; this goal had a major impact on the design of the present
visual analysis instrument. Littrell and Evers analyzed liturgical vestments that varied in surface embellishments only; the main structure of the garment remained constant throughout the period. However, their analysis of surface embellishment was extremely thorough; by looking at several aspects of embellishment they were more likely to detect fluctuations in diversity.

The situation was the same for the present study. Researchers have argued that only a few select garment features, namely those pertaining to overall silhouette, are of any importance to tracing fashion change (Richardson & Kroeber, 1940). However, dress—especially historic costume—is complex, and many components go into creating a style; fabrics and materials, the manipulation of those materials into three-dimensional forms, the application of surface embellishments, and the interplay of all these features play a role. Diversity may be evident in only some of the features. Ignoring various structural or surface design components may result in failure to reject a false null hypothesis, or failure to obtain evidence which supports a true null hypothesis.

In the case of liturgical vestments, surface embellishments were the part of the garment that was manipulated and were expressive of the changes which occurred in the priest role. Likewise, if during a fashion period a distinct silhouette prevails, for whatever reason, other
garment features might serve as a vehicle for expression and thus diversity. Therefore, it was determined at the outset that the visual analysis for the present study would require a comprehensive instrument, taking more features of costume into account than the previous studies reviewed.

**Use of Different Levels of Measurement**

The survey of past visual analysis research suggests that the suitability of different measurement levels for recording costume features may vary according to the feature. Certain features may only be grouped by type, or measured with a nominal scale. Examples of such features include the presence of established styles or silhouettes, types of trimming used, or whether a certain component is present or not.

The nominal measures in some of the studies reviewed noted unforeseen feature types when existing response categories were insufficient (Robenstine & Kelley, 1981) or used an inductive approach in recording garment features, creating categories based on what was found in the sample (Richards, 1983-84; Turnbaugh, 1979). This same approach was incorporated into the visual analysis instrument for the present study; each nominal item included an "other" category through which unexpected feature types could be recorded and new response categories formed.

While nominal measures may be the only way to record certain features of dress, they can also introduce bias into the visual analysis if relied on too heavily. This is of
particular concern to studies of historic costume, where period styles are sometimes simplified in order to manage the sweeping subject of costume through history. In some of the studies reviewed (Behling & Dickey, 1980; Robenstine & Kelley, 1981) nominal scales were used in such a way that they took on a "leading" quality. Especially for nominal items which attempt to describe features using general types (e.g., types of silhouette), categories may be too simplistic, thus pigeonholing features which in actuality may manifest deviations from the type. For this reason, in the present study, nominal level scales were generally reserved for specific features of costume which had clearly distinct categories.

Higher levels of measurement can be an effective approach to recording some costume features more accurately and objectively. While lengths and widths of garment parts were measured using a ratio scale by some of the researchers (Creekmore & Pedersen, 1979; Lowe, 1984; Richards, 1983-84; Richardson & Kroeber, 1940), Belleau (1987) demonstrated the possibility of measuring the same features using an ordinal level scale. While the former approach may be more precise, the latter may be more efficient and easier to carry out in that lengths and widths may be eyeballed rather than physically measured, and no conversions to comparable ratios are necessary. Clearly, if a comprehensive visual analysis
instrument were to be designed, a combination of scales might be used, as they were in many of the methods reviewed.

Use of more than one level of scale to describe a garment component was also found to be effective, as indicated in the Robenstine and Kelley (1981) and Littrell and Evers (1985) studies. For example, sleeves have a style aspect and a length aspect; for the present study, it was found to be more effective to measure these two features separately, the former using a nominal scale and the latter using an ordinal scale. In fact, some items which were found to be problematic during the coding process for the present study (and were ultimately eliminated or modified) attempted to measure too many features at once. Thus, using more than one type of scale in describing a single component of dress may be appropriate, as well as using more than one type of scale in the visual analysis instrument as a whole.

**Use of Semantic Differential Scales and the Issue of Layers**

Two ways in which the present study departs from the studies reviewed is in its use of interval scales in the form of semantic differential scales in describing costume features, and its attempt to deal with multiple layers in one costume. Semantic differential scales were found to be particularly effective in assessing aesthetic qualities of dress which draw upon the interplay of features in creating a look or style. For example, the amount of symmetry in a garment component, such as a bodice or skirt, is effectively
measured in this way (e.g., symmetric vs. asymmetric) (Damhorst & Fiore, 1993). Aesthetic properties of fabrics, such as texture, luster, and drape, were also coded using semantic differential scales.

Identifying features to be recorded in the visual analysis tended to have a domino effect; if this was going to be measured, then this, that, and the other thing would have to be measured, too. Recording a variety of specific features of the costumes made it necessary to visually dissect the garments piece by piece and layer by layer. While layering may not be an issue for certain categories of dress, it was a decided characteristic of Victorian and Edwardian women's fashion.

Coding layers separately brought about new dilemmas. It was necessary to decide what would and would not be evaluated based on limited visibility of underlayers. Ideally, all of the same measures would have been applied to each layer; however, this was not possible. For the most part, all that was visible was recorded, but no attempt was made to assess what was unseen. Recording the number of garment layers, however, provided important information that ultimately contributed to the interpretation of the findings.

In sum, a variety of approaches may be used in visually analyzing pictures of dress. For each individual project, the research question will influence the garment features selected for analysis and, subsequently, the number of items or
measures and the levels of measurement used. The visual analysis designed for the present study borrowed from previous methods where appropriate, but adopted different approaches as needed. This method is discussed further in the following chapter.
METHODS

Definition of Terms for Methods

The terms used in this chapter are defined as follows:

Fashion Illustration or Illustration

"Fashion illustration" or "illustration" refers to an artist's rendering of a female figure dressed in an apparel item or items consistent with the fashion of the time. The fashion illustrations used in this study appeared in women's magazines published during the late nineteenth and early twentieth centuries. These illustrations were presented as the fashion in women's dress. Often a paper garment pattern of the illustrated style could be purchased by mail or was included in the magazine.

Female Figure or Figure

"Female figure" or "figure" refers to the part of the fashion illustration that was the female body or model.

Costume or Garment

"Costume" and "garment" both refer to the apparel item or items depicted in the fashion illustration. Although the term "costume" can include cosmetics and accessory items, it is used here to suggest that many of the fashions were a composite of two or more garment pieces, as well as to convey the historical nature of these garments.

Picture

"Picture" refers to a single scene in which a fashion illustration was shown. Background scenery for the
illustration varied in complexity from a few roughly drawn, abstract items to detailed room interiors or outdoor vistas. In its most basic form, however, "picture" simply refers to the setting in which a fashion illustration appeared—even if it was a blank space.

Sample

Sources for Illustrations

The sample for the research consisted of photocopies of fashion illustrations taken from two women's magazines, Harper's Bazar and the Delineator, in circulation during the late nineteenth through early twentieth centuries. Both magazines were directed toward middle- and upper middle-class white women and included information on fashion. Harper's Bazar and the Delineator were both successful magazines during the time period studied (Tebbel, 1969; Wood, 1956)\(^1\), and therefore may be considered reliable sources of information on what was being presented as current fashion.

The sampling plan was as follows. Beginning with the year 1873 and ending with 1912, every third year of each magazine would be sampled for fashion illustrations. Illustrations would then be obtained for the following years: 1873, 1876, 1879, 1882, 1885, 1888, 1891, 1894, 1897, 1900, 1903, 1906, 1909, 1912. For each of these years, five illustrations would be selected from the March, June, and October issues of each magazine. The resulting sample would consist of 420 fashion illustrations.
Two complications called for some flexibility in the execution of this plan. First, some issues of the Delineator were not located after an exhaustive search through U.S. libraries. To compensate for the fashion illustrations that would have come from these issues, additional illustrations were selected from concurrent issues of Harper's Bazar. Specifically, fashion illustrations selected to represent March, June, and October of 1873, 1876, and 1879, and October of 1885 were all from Harper's Bazar. In addition, although the June 1882 issue of the Delineator could not be located, the July 1882 issue was available and was substituted for the June issue. With these exceptions, fashion illustrations were selected using the original sampling plan.

The second complication was that, due to the length of time it took to collect the necessary data from each fashion illustration and the time limitations placed on the study, a more manageable sample size was deemed necessary. Therefore, the sample was reduced to three fashion illustrations per month; three of the original five illustrations were chosen at random for inclusion in the sample. The final sample, then, consisted of 252 fashion illustrations.

Criteria for Selecting Sample Items

The first five fashion illustrations that appeared in the specified issues of each magazine were photocopied and included in the sample, provided they met an established set of criteria. If one or more of the first five illustrations
did not meet the criteria, each successive illustration that appeared in the magazine was considered for inclusion in the sample until five acceptable illustrations were obtained. Because Harper's Bazar was issued weekly until 1901, sampling for the earlier years of this magazine began with the first issue of the month and continued as necessary with each successive issue for that month. If five acceptable illustrations could not be found for a particular month from either magazine, sampling continued into the following month.

The criteria used in selecting fashion illustrations for the sample follow. These criteria were of three general types: content criteria, appearance criteria, and location criteria. Content criteria pertained to the nature of the illustrated costume itself. Appearance criteria concerned the manner in which the illustration was rendered or executed. Location criteria related to the placement of the illustration within the picture or magazine. The criteria were as follows.

**Content criteria.** Fashion illustrations were required to depict costumes or garments that fit the "daytime" category of women's dress. Evening dress, loungewear, and outerwear such as capes and overcoats were not included. Descriptive captions were used to determine whether the costumes fit into the desired category. Types of costumes selected to compose the sample included, but were not limited to, morning gowns, afternoon costumes, house dresses, reception dresses, tailored gowns and suits, walking and promenade costumes, outing or
outdoor costumes, visiting and calling costumes, shirtwaists and skirts, and street costumes and suits. Types of costumes excluded consisted of wrappers, tea gowns, evening gowns, dinner gowns, theater gowns, and costumes for specific recreational or athletic activities (e.g., skating, bathing, and bicycling costumes). If captions were inadequate in identifying the intended use of a costume, background scenery and accessories also helped to determine the appropriateness of the fashion illustration for the study.

Fashion illustrations that depicted costumes designated as appropriate for a narrow age group, such as girls or elderly women, were not included in the sample.

**Appearance criteria.** Fashion illustrations were required to be in the form of an artist's rendering; photographs were not included in the sample.

The figure had to be shown full length (head to toe), in a standing position, and the front of the garment had to be in view. A figure only partially facing front was acceptable so long as more than one half of the front of the garment was exposed.

A fashion illustration that had significant portions or features hidden from view by scenery, such as furniture or landscaping, or other figures was not included in the sample.

Illustrations that lacked clarity (i.e., were roughly sketched, extremely small, or oversimplified) were avoided when possible. An effort was made to include illustrations
that were large—although they did not have to span the length of the page—and detailed enough to allow completion of the visual analysis designed for the study.

**Location criteria.** In cases where two or more pictures containing fashion illustrations occurred on the same page, each picture could be sampled for illustrations. When more than one acceptable fashion illustration appeared within the same picture, only one of the illustrations was included in the sample unless acceptable fashion illustrations were scarce for that month and magazine, and five sample items could be obtained no other way. Usually the most prominent (i.e., clearly rendered, unobscured) fashion illustration was selected from the picture.

Fashion illustrations that appeared on magazine covers were not selected unless, again, acceptable fashion illustrations were scarce for that month and magazine and five sample items could be obtained no other way.

Fashion illustrations that appeared in advertisements were not included in the sample.

Female figures dressed in fashionable costumes that appeared in illustrations for poetry, short stories, serialized stories, or magazine articles, but were not fashion illustrations per se, were not included in the sample.
Visual Analysis Instrument

General Purpose and Requirements

After a review of previous visual analysis methods, I developed an instrument for visual analysis of the sample fashion illustrations. The instrument was used to systematically describe the costumes in the fashion illustrations using numerical codes. A wide variety of characteristics of each costume were recorded by myself and other trained individuals via the instrument. Two requirements of the instrument were (1) that it be able to accommodate or measure the changes in fashion from 1873 through 1912, and (2) that it be detailed enough to serve as a powerful, multi-item indicator of diversity in dress over that time span. In an effort to achieve the latter, I designed the instrument to gather information regarding the following characteristics of each costume: silhouette; stylistic features within the silhouette, including both surface embellishment (i.e., applied trimming) and structural embellishment (i.e., manipulation of the garment fabric structure); fabric characteristics; and overall aesthetic characteristics. No information was collected regarding hats and bonnets, hairstyles and hair ornaments, footwear, hand-held accessory items (e.g., umbrella, purses, fans, gloves, etc.) or background scenery or pictures in which the fashion illustrations appeared. Jewelry was recorded as a type of
surface embellishment only if it was attached to or hung on top of the garment.

**General Types of Items**

The instrument was made up of three basic types of measures or items, all of which elicited descriptive information about the illustrated costumes. The items included semantic differential scales, length and width measures anchored with visual references to locations on the body, and multiple-choice items. Each type of item composed about one third of the instrument.

The semantic differential scales were interval scales consisting of five points and anchored with bipolar adjectives. These items were used to describe an overall quality of a garment component. Examples of semantic differential scale items include bodice fit (i.e., "fitted" vs. "loose") and skirt symmetry (i.e., "symmetric" vs. "asymmetric"). Some of these items were adapted from Damhorst, Guilmartin, Moreno, and Fiore's (1993) instrument for visual analysis of 1990s business suits.

Length and width measures anchored with visual references to locations on the body, more simply terms "body location scales," were ordinal scales. Body location scales consisted of varying numbers of points ranging from 5 to 12. Each of these items was accompanied by a basic line drawing of a nude female figure that had demarcations to correspond with the individual item scale values. The demarcations were not
necessarily equidistant in length, but were mapped according to "meaningful" divisions of body parts as in Holman (1980). Such items were used for establishing the length, width and location of various garment parts on or in relationship to the female figure or body. Waistline location, sleeve length, and collar width are a few examples of this type of item.

Multiple-choice items were nominal scales with response categories or choices that varied in number, ranging from 2 to 16. Some multiple-choice items allowed for more than one response or choice; for other items only one exclusive response was appropriate. Multiple-choice items were used to record styles and "types" of costume components. A few multiple-choice items (i.e., collar style, sleeve style, armscye style, and cuff or sleeve hem structural embellishment) were accompanied by "style guides." A style guide consisted of simple line drawings of the archetypical styles listed as choices for the item. Style guides served as visual references for coders and helped to enhance instrument reliability.

Organization

Instrument items were grouped into sections that corresponded with meaningful divisions of the illustrated costumes. Two major sections of the instrument described the bodice and skirt, respectively. The first item in each of these sections identified the number of the costume "layer" that was being coded. The remaining items in each section
referred to that layer\(^3\) (see "General Directions" for the interpretation of layers). For the bodice section only, an item was included to describe the general character of the bodice (i.e., dress bodice, coordinating jacket, chemisette, etc.). The next group of items in each section consisted of a set of semantic differential scales that described the fabric or fabrics used in the bodice and skirt, respectively. The remaining items in the bodice and skirt sections described components or features pertaining to those individual portions of the costume.

The bodice section of the instrument was further divided into four sub-sections: the bodice "proper," the neckline and collar, sleeve and cuff, and waistline and any part of the bodice that extended below the waistline. Because similar body divisions were not evident in features of the skirt, subsections similar to those of the bodice section were not needed in the skirt section.

**General Directions**

In responding to the instrument items, "coders" considered only the front of the costumes. Even when a figure was drawn slightly turned so that some of the back of the costume could be seen, coders considered only information that occurred from approximately one side of the figure across the front to the other side.

Because many of the costumes in the sample were composed of multiple layers (e.g., a jacket and blouse or a layered
(skirt), each costume was coded layer by layer, beginning with the outermost layer and working toward the innermost layer. A maximum of three layers was coded. The outermost layer of the costume constituted "layer one," the next layer moving inward was "layer two," and the next "layer three." The items in the bodice and skirt sections of the instrument were coded for each layer in the bodice and skirt of the costume, respectively. An instrument item was left blank when the garment part of interest was either hidden from view or did not exist on the garment layer.

Finally, the general practice used when responding to the instrument items was to code the costumes based on how they appeared as illustrated rather than trying to guess how they were actually constructed or the exact character of the materials that would have been used. Descriptive information about the various fashions was very limited and it was not possible for the coders to have complete, accurate information about each costume's construction and materials. In addition, the outward appearance of each costume was of greater importance to this research than technical information about how it was put together. This principle was particularly important in identifying the layers of the costumes for coding; second and third layer bodices, for example, that may have been partial or incomplete garments were coded as complete layers so long as they appeared to be such.
For more detailed, item-by-item directions and explanations of the instrument, refer to Appendix B.

Procedure for Coding Illustrations

Response Forms and Use of Multiple Coders

In order to establish interrater reliability, more than one individual was used to code the sample. As the primary investigator, I coded the whole sample using the instrument in its entirety (hereafter, I shall refer to myself as the "first coder"). Two other individuals, or "second coders," coded the sample using only the body location scales and the semantic differential scales in the instrument. A "third coder," another principal member of the research team, coded a randomly selected sub-sample of 25 illustrations using only the multiple-choice instrument items. Coders recorded their responses on general purpose, computer-readable answer forms by filling in the circle that corresponded to the desired response category or scale value for each instrument item.

Reliability Measurement for Semantic Differential Scales and Body Location Scales

The first and third coders trained the second coders by walking them through the coding of a fashion illustration using the body location items and the semantic differential items from the visual analysis instrument. Second coders were given a chance to ask questions and respond to these instrument items on a trial basis, with immediate feedback from the trainers. When the second coders understood how to
code the fashion illustrations using the visual analysis instrument, the following procedure took place.

The first coder began by selecting a fashion illustration for coding; illustrations were coded in random order rather than sequentially. After an illustration was coded by the first coder, it was given to a second coder who independently responded to the semantic differential scales and the body location scales. The two sets of responses were then compared. For each of these items, if the responses of the two coders differed by one, the response values were averaged. If the responses of the two coders differed by more than one, then the two coders negotiated the difference in their responses.

In negotiation, each coder reconsidered her response to the item in question and explained to the other coder how she arrived at her response. Usually one of the coders agreed to modify her response so that it would either be identical to the other coder's response or differed by only one point so that the two values could be averaged. Sometimes it was necessary for both coders to modify their responses. In rare cases, when the coders could not arrive at a compromise, a third expert in visual analysis or historic costume was consulted and the majority decision was honored. Averaged and negotiated responses were used for data analysis.

After the fashion illustrations were coded by two coders and the differences negotiated, three sub-samples of 20
fashion illustrations were randomly selected from the larger sample and used to compute interrater reliability for the semantic differential scales and the body location scales. The three different sub-samples of fashion illustrations represented progressive stages of data collection. Each of the sub-samples contained a wide array of illustration dates due to the random order in which illustrations were coded.

For each sub-sample of 20 illustrations, an interrater reliability coefficient was calculated for each semantic differential scale and each body location scale based on the differences between the two coders' independent responses. It was decided that a difference of one between the responses of the coders would not count as a disagreement. For this reason, a statistic called Weighted Kappa $K_w$ (Cohen, 1965) was used to obtain the reliability measure for these scales. The Weighted Kappa statistic took into account not only the number of times the coders disagreed, but also the extent of each disagreement. This aspect of the statistic allowed for a difference of 1 between coders' responses to have no weight and not count as a disagreement. Differences of 2 or more between coders were assigned weights, with each successive amount of difference assigned an increasingly heavier weight. The greater the extent of disagreement between coders, the greater the negative influence on the reliability.

The first step in computing $K_w$ was, for each semantic differential scale and each body location scale, to create a
"k X k table of joint categorical assignment frequencies" (Cohen, 1968, p. 213) where \( k \) equaled the number of scale values, treated here as discrete categories, for the particular item. The cells of the table were assigned weights \( (v_{ij}) \) according to the extent of disagreement between coders represented by that cell. A disagreement of 0 or 1 was assigned a weight of 0, a disagreement of 2 was assigned a weight of 1, a disagreement of 3 was assigned a weight of 2, etc. With the numbers generated by this table, the statistic was computed using the following formula:

\[
K_w = 1 - \frac{\text{the sum of } v_{ij}f_{oij}}{\text{the sum of } v_{ij}f_{eij}}
\]

where \( v_{ij} \) is the disagreement weight, \( f_{oij} \) is the observed cell frequency, and \( f_{eij} \) is the expected cell frequency, as for a \( \chi^2 \) contingency table" (Cohen, 1968, p. 216).

The Weighted Kappa statistic had limitations in the present research. It was an accurate measure of interrater reliability only in situations where there was a large amount of variance among the scale values indicated in response to an item. When coder responses were concentrated toward a certain number or range of numbers on a scale, relatively small amounts of disagreement had a dramatic, negative impact on the coefficient value (i.e., the reliability coefficient was extremely low). For items where a low variance in responses occurred, the method used in calculating interrater reliability for the multiple-choice items was used.
Reliability coefficients for the body location scale and semantic differential scale items based on the three sub-samples of illustrations are presented in Tables 1, 2, and 3.

Reliability Measurement for Multiple-Choice Items

Coding the multiple-choice items was, for the most part, the responsibility of the first coder. In order to assess reliability for the multiple-choice items, the third coder responded to the multiple-choice items for 25 of the fashion illustrations randomly selected across the sampled years. For these 25 illustrations, the first and third coders' responses were compared and negotiated in a manner similar to the semantic differential scales and the body locations scales. However, responses could not be averaged due to the nominal nature of the scales; coders had to arrive at a perfect match in their responses through negotiation. Again, negotiated responses were used for data analysis.

Reliability for each multiple-choice item was measured as the percent of agreement between the first and third coders' responses for the 25 illustrations, and was calculated using the following formula:

\[
\% \text{ observation agreement} = \frac{N \times \# \text{ agree}}{J_1 + J_2 + \ldots + J_n}
\]

where \(N\) is the number of coders, \(\# \text{ agree}\) is the number of times they agreed on a response, and \(J\) is the number of decisions made by each coder.
Table 1. Interrater Reliability Coefficients (Weighted Kappa) for Body Location Scale Items and Semantic Differential Scale Items, Group 1a

<table>
<thead>
<tr>
<th>Variable</th>
<th>$K_w$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fabric characteristics:</strong></td>
<td></td>
</tr>
<tr>
<td>Matte - shiny</td>
<td>0.9366</td>
</tr>
<tr>
<td>Flat - 3-dimensional</td>
<td>0.9259</td>
</tr>
<tr>
<td>Stiff - flowing</td>
<td>0.7329</td>
</tr>
<tr>
<td>Opaque - transparent</td>
<td>0.9815</td>
</tr>
<tr>
<td><strong>Patterned fabric:</strong></td>
<td></td>
</tr>
<tr>
<td>Geometric - organic</td>
<td>1.0000</td>
</tr>
<tr>
<td>Regular - Irregular</td>
<td>0.7648</td>
</tr>
<tr>
<td>High Contrast - low contrast</td>
<td>0.9192</td>
</tr>
<tr>
<td>Light - dark</td>
<td>0.9788</td>
</tr>
<tr>
<td><strong>Bodice</strong></td>
<td></td>
</tr>
<tr>
<td>Fitted - loose</td>
<td>0.9024</td>
</tr>
<tr>
<td>Symmetric - Asymmetric</td>
<td>0.9583</td>
</tr>
</tbody>
</table>

---

a n=20

b Responses to fabrics in the bodice and skirt, respectively, were combined for these items in measuring reliability.

c The alternative method of computing reliability was used.

d Reliability coefficient calculation based on illustrations from groups one, two, and three combined.
Table 1. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$K_w$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Neckline and collar</strong></td>
<td></td>
</tr>
<tr>
<td>Neckline length</td>
<td>0.9629</td>
</tr>
<tr>
<td>Collar width</td>
<td>1.0000</td>
</tr>
<tr>
<td>Lapel width</td>
<td>0.8719^d</td>
</tr>
<tr>
<td>Collar symmetry</td>
<td>1.0000</td>
</tr>
<tr>
<td>Lapel symmetry</td>
<td>1.0000^d</td>
</tr>
<tr>
<td><strong>Central torso area exposed:</strong></td>
<td></td>
</tr>
<tr>
<td>Neckline</td>
<td>1.0000</td>
</tr>
<tr>
<td>Upper chest</td>
<td>1.0000</td>
</tr>
<tr>
<td>Breast area</td>
<td>1.0000</td>
</tr>
<tr>
<td>Midriff area</td>
<td>1.0000</td>
</tr>
<tr>
<td>Waistline</td>
<td>1.0000</td>
</tr>
<tr>
<td>Hip area</td>
<td>1.0000</td>
</tr>
<tr>
<td><strong>Sleeve and cuff</strong></td>
<td></td>
</tr>
<tr>
<td>Sleeve length</td>
<td>1.0000</td>
</tr>
<tr>
<td><strong>Sleeve silhouette:</strong></td>
<td></td>
</tr>
<tr>
<td>Cap</td>
<td>1.0000</td>
</tr>
<tr>
<td>Upper arm</td>
<td>1.0000</td>
</tr>
<tr>
<td>Elbow</td>
<td>0.9000^c</td>
</tr>
<tr>
<td>Forearm</td>
<td>1.0000</td>
</tr>
<tr>
<td>Wrist</td>
<td>1.0000</td>
</tr>
</tbody>
</table>
Table 1. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$K_w$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waistline and below</td>
<td></td>
</tr>
<tr>
<td>Waistline location:</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>1.0000</td>
</tr>
<tr>
<td>Side</td>
<td>1.0000</td>
</tr>
<tr>
<td>Waistline, fitted - loose</td>
<td>0.9524$^C$</td>
</tr>
<tr>
<td>Bodice length</td>
<td>0.8776</td>
</tr>
<tr>
<td>Below waistline, fitted - loose</td>
<td>1.0000</td>
</tr>
<tr>
<td>Overall bodice aesthetics:</td>
<td></td>
</tr>
<tr>
<td>Angular - rounded</td>
<td>0.7123</td>
</tr>
<tr>
<td>Determinate - indeterminate</td>
<td>0.8541</td>
</tr>
<tr>
<td>Simple - complex</td>
<td>0.8500$^C$</td>
</tr>
<tr>
<td>Skirt length at highest point</td>
<td>1.0000</td>
</tr>
<tr>
<td>Skirt length at lowest point</td>
<td>0.9627</td>
</tr>
<tr>
<td>Skirt silhouette:</td>
<td></td>
</tr>
<tr>
<td>Waist</td>
<td>1.0000</td>
</tr>
<tr>
<td>Upper hip</td>
<td>1.0000</td>
</tr>
<tr>
<td>Lower hip</td>
<td>0.9500</td>
</tr>
<tr>
<td>Thigh</td>
<td>0.9524$^C$</td>
</tr>
<tr>
<td>Knee</td>
<td>1.0000</td>
</tr>
<tr>
<td>Calve</td>
<td>0.9843</td>
</tr>
<tr>
<td>Ankle</td>
<td>0.7242</td>
</tr>
<tr>
<td>Skirt, symmetric - asymmetric</td>
<td>0.9167$^C$</td>
</tr>
</tbody>
</table>
Table 1. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$K_w$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall skirt aesthetics:</td>
<td></td>
</tr>
<tr>
<td>Angular - rounded</td>
<td>0.8000c</td>
</tr>
<tr>
<td>Determinate - Indeterminate</td>
<td>0.9000c</td>
</tr>
<tr>
<td>Simple - Complex</td>
<td>0.9000c</td>
</tr>
</tbody>
</table>
Table 2. Interrater Reliability Coefficients (Weighted Kappa) for Body Location Scale Items and Semantic Differential Scale Items, Group 2\(^a\)

<table>
<thead>
<tr>
<th>Variable</th>
<th>(K_w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric characteristics:(^b)</td>
<td></td>
</tr>
<tr>
<td>Matte - shiny</td>
<td>0.9444(^c)</td>
</tr>
<tr>
<td>Flat - 3-dimensional</td>
<td>0.9831(^c)</td>
</tr>
<tr>
<td>Stiff - flowing</td>
<td>0.7931(^c)</td>
</tr>
<tr>
<td>Opaque - transparent</td>
<td>1.0000</td>
</tr>
<tr>
<td>Light - dark</td>
<td>0.9130</td>
</tr>
<tr>
<td>Bodice</td>
<td></td>
</tr>
<tr>
<td>Fitted - loose</td>
<td>0.8360</td>
</tr>
<tr>
<td>Symmetric - Asymmetric</td>
<td>0.9252</td>
</tr>
<tr>
<td>Neckline and collar</td>
<td></td>
</tr>
<tr>
<td>Neckline length</td>
<td>1.0000</td>
</tr>
<tr>
<td>Collar width</td>
<td>0.9643(^c)</td>
</tr>
<tr>
<td>Collar symmetry</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

\(^a\) \(n=20\)

\(^b\) Responses to fabrics in the bodice and skirt, respectively, were combined for these items in measuring reliability.

\(^c\) The alternative method of computing reliability was used.
Table 2. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$K_w$</th>
</tr>
</thead>
<tbody>
<tr>
<td>(neckline and collar, cont'd.)</td>
<td></td>
</tr>
<tr>
<td>Central torso area exposed:</td>
<td></td>
</tr>
<tr>
<td>Neckline</td>
<td>1.0000</td>
</tr>
<tr>
<td>Upper chest</td>
<td>1.0000</td>
</tr>
<tr>
<td>Breast area</td>
<td>0.9170</td>
</tr>
<tr>
<td>Midriff area</td>
<td>0.9655$^C$</td>
</tr>
<tr>
<td>Waistline</td>
<td>0.9630$^C$</td>
</tr>
<tr>
<td>Hip area</td>
<td>1.0000</td>
</tr>
<tr>
<td>Sleeve and cuff</td>
<td></td>
</tr>
<tr>
<td>Sleeve length</td>
<td>1.0000</td>
</tr>
<tr>
<td>Sleeve silhouette:</td>
<td></td>
</tr>
<tr>
<td>Cap</td>
<td>1.0000</td>
</tr>
<tr>
<td>Upper arm</td>
<td>0.8403</td>
</tr>
<tr>
<td>Elbow</td>
<td>0.8500$^C$</td>
</tr>
<tr>
<td>Forearm</td>
<td>1.0000</td>
</tr>
<tr>
<td>Wrist</td>
<td>1.0000</td>
</tr>
<tr>
<td>Waistline and below</td>
<td></td>
</tr>
<tr>
<td>Waistline location:</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>0.9615$^C$</td>
</tr>
<tr>
<td>Side</td>
<td>0.9500$^C$</td>
</tr>
</tbody>
</table>
Table 2. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>( K_w )</th>
</tr>
</thead>
<tbody>
<tr>
<td>(waistline and below, cont'd.)</td>
<td></td>
</tr>
<tr>
<td>Waistline, fitted - loose</td>
<td>0.9615(^c)</td>
</tr>
<tr>
<td>Bodice length</td>
<td>1.0000</td>
</tr>
<tr>
<td>Below waistline, fitted - loose</td>
<td>0.8900</td>
</tr>
<tr>
<td>Overall bodice aesthetics:</td>
<td></td>
</tr>
<tr>
<td>Angular - rounded</td>
<td>0.9000(^c)</td>
</tr>
<tr>
<td>Determinate - indeterminate</td>
<td>0.9500(^c)</td>
</tr>
<tr>
<td>Simple - complex</td>
<td>0.8561</td>
</tr>
<tr>
<td>Skirt length at highest point</td>
<td>1.0000</td>
</tr>
<tr>
<td>Skirt length at lowest point</td>
<td>0.9550</td>
</tr>
<tr>
<td>Skirt silhouette:</td>
<td></td>
</tr>
<tr>
<td>Waist</td>
<td>1.0000</td>
</tr>
<tr>
<td>Upper hip</td>
<td>1.0000</td>
</tr>
<tr>
<td>Lower hip</td>
<td>1.0000</td>
</tr>
<tr>
<td>Thigh</td>
<td>1.0000</td>
</tr>
<tr>
<td>Knee</td>
<td>1.0000</td>
</tr>
<tr>
<td>Calve</td>
<td>0.9324</td>
</tr>
<tr>
<td>Ankle</td>
<td>0.9506</td>
</tr>
<tr>
<td>Skirt, symmetric - asymmetric</td>
<td>1.0000</td>
</tr>
<tr>
<td>Variable</td>
<td>$K_N$</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Overall skirt aesthetics:</td>
<td></td>
</tr>
<tr>
<td>Angular - rounded</td>
<td>0.8742</td>
</tr>
<tr>
<td>Determinate - Indeterminate</td>
<td>0.8500</td>
</tr>
<tr>
<td>Simple - Complex</td>
<td>1.0000</td>
</tr>
</tbody>
</table>
Table 3. Interrater Reliability Coefficients (Weighted Kappa) for Body Location Scale Items and Semantic Differential Scale Items, Group 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>( K_w )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric characteristics:</td>
<td></td>
</tr>
<tr>
<td>Matte - shiny</td>
<td>1.0000</td>
</tr>
<tr>
<td>Flat - 3-dimensional</td>
<td>1.0000</td>
</tr>
<tr>
<td>Stiff - flowing</td>
<td>0.9107</td>
</tr>
<tr>
<td>Opaque - transparent</td>
<td>1.0000</td>
</tr>
<tr>
<td>Patterned fabric:</td>
<td></td>
</tr>
<tr>
<td>Geometric - organic</td>
<td></td>
</tr>
<tr>
<td>Regular - Irregular</td>
<td></td>
</tr>
<tr>
<td>High Contrast - low contrast</td>
<td></td>
</tr>
<tr>
<td>Light - dark</td>
<td>0.8729</td>
</tr>
<tr>
<td>Bodice</td>
<td></td>
</tr>
<tr>
<td>Fitted - loose</td>
<td>0.8937</td>
</tr>
<tr>
<td>Symmetric - Asymmetric</td>
<td>0.9035</td>
</tr>
<tr>
<td>Neckline and collar</td>
<td></td>
</tr>
<tr>
<td>Neckline length</td>
<td>0.9051</td>
</tr>
<tr>
<td>Collar width</td>
<td>0.9583c</td>
</tr>
</tbody>
</table>

\( ^a \) n=20

\( ^b \) Responses to fabrics in the bodice and skirt, respectively, were combined for these items in measuring reliability.

\( ^c \) The alternative method of computing reliability was used.
Table 3. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$K_w$</th>
</tr>
</thead>
<tbody>
<tr>
<td>(neckline and collar, cont'd.)</td>
<td></td>
</tr>
<tr>
<td>Collar symmetry</td>
<td>1.0000</td>
</tr>
<tr>
<td>Central torso area exposed:</td>
<td></td>
</tr>
<tr>
<td>Neckline</td>
<td>0.9109</td>
</tr>
<tr>
<td>Upper chest</td>
<td>1.0000</td>
</tr>
<tr>
<td>Breast area</td>
<td>1.0000</td>
</tr>
<tr>
<td>Midriff area</td>
<td>1.0000</td>
</tr>
<tr>
<td>Waistline</td>
<td>1.0000</td>
</tr>
<tr>
<td>Hip area</td>
<td>0.9091</td>
</tr>
<tr>
<td>Sleeve and cuff</td>
<td></td>
</tr>
<tr>
<td>Sleeve length</td>
<td>1.0000</td>
</tr>
<tr>
<td>Sleeve silhouette:</td>
<td></td>
</tr>
<tr>
<td>Cap</td>
<td>0.8347</td>
</tr>
<tr>
<td>Upper arm</td>
<td>1.0000</td>
</tr>
<tr>
<td>Elbow</td>
<td>1.0000</td>
</tr>
<tr>
<td>Forearm</td>
<td>1.0000</td>
</tr>
<tr>
<td>Wrist</td>
<td>1.0000</td>
</tr>
<tr>
<td>Waistline and below</td>
<td></td>
</tr>
<tr>
<td>Waistline location:</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>1.0000</td>
</tr>
<tr>
<td>Side</td>
<td>1.0000</td>
</tr>
</tbody>
</table>
Table 3. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$K_w$</th>
</tr>
</thead>
<tbody>
<tr>
<td>(waistline and below, cont'd.)</td>
<td></td>
</tr>
<tr>
<td>Waistline, fitted - loose</td>
<td>1.0000</td>
</tr>
<tr>
<td>Bodice length</td>
<td>1.0000</td>
</tr>
<tr>
<td>Below waistline, fitted - loose</td>
<td>0.9091$^c$</td>
</tr>
<tr>
<td>Overall bodice aesthetics:</td>
<td></td>
</tr>
<tr>
<td>Angular - rounded</td>
<td>0.8500$^c$</td>
</tr>
<tr>
<td>Determinate - indeterminate</td>
<td>0.9500$^c$</td>
</tr>
<tr>
<td>Simple - complex</td>
<td>0.9500$^c$</td>
</tr>
<tr>
<td>Skirt length at highest point</td>
<td>1.0000</td>
</tr>
<tr>
<td>Skirt length at lowest point</td>
<td>0.9723</td>
</tr>
<tr>
<td>Skirt silhouette:</td>
<td></td>
</tr>
<tr>
<td>Waist</td>
<td>1.0000</td>
</tr>
<tr>
<td>Upper hip</td>
<td>1.0000</td>
</tr>
<tr>
<td>Lower hip</td>
<td>1.0000</td>
</tr>
<tr>
<td>Thigh</td>
<td>1.0000</td>
</tr>
<tr>
<td>Knee</td>
<td>1.0000</td>
</tr>
<tr>
<td>Calve</td>
<td>1.0000</td>
</tr>
<tr>
<td>Ankle</td>
<td>1.0000</td>
</tr>
<tr>
<td>Skirt, symmetric - asymmetric</td>
<td>1.0000</td>
</tr>
</tbody>
</table>
Table 3. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$K_w$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall skirt aesthetics:</td>
<td></td>
</tr>
<tr>
<td>Angular - rounded</td>
<td>$0.9000^c$</td>
</tr>
<tr>
<td>Determinate - Indeterminate</td>
<td>$1.0000$</td>
</tr>
<tr>
<td>Simple - Complex</td>
<td>$0.9000^c$</td>
</tr>
</tbody>
</table>
In an effort to compensate for the limited number of illustrations used for the multiple-choice item reliability assessment, the first coder consulted the third coder in situations where the first coder was uncertain about how to respond to instrument items for any of the sample fashion illustrations. Together, the first and third coders developed a satisfactory way of coding some of the more challenging garment features.

Reliability coefficients for the multiple-choice items based on the sub-sample of 25 illustrations are presented in Table 4.
Table 4. Interrater Reliability Coefficients for Multiple Choice Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>percent agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upper Region</strong></td>
<td></td>
</tr>
<tr>
<td>Character of layer</td>
<td>0.7561</td>
</tr>
<tr>
<td><strong>Bodice</strong></td>
<td></td>
</tr>
<tr>
<td>Bodice closure or opening</td>
<td>0.8462</td>
</tr>
<tr>
<td>Bodice structural embellishment</td>
<td>0.7835</td>
</tr>
<tr>
<td>Bodice surface embellishment</td>
<td>0.8718</td>
</tr>
<tr>
<td><strong>Neckline and collar</strong></td>
<td></td>
</tr>
<tr>
<td>Neckline shape</td>
<td>0.8537</td>
</tr>
<tr>
<td>Collar style (^b)</td>
<td>0.7674</td>
</tr>
<tr>
<td>Collar, lapel, neckline surface embellishment</td>
<td>0.6042</td>
</tr>
<tr>
<td>Additional neckline decoration</td>
<td>0.9091</td>
</tr>
<tr>
<td><strong>Sleeve and cuff</strong></td>
<td></td>
</tr>
<tr>
<td>Armscye style</td>
<td>0.9200</td>
</tr>
<tr>
<td>Sleeve style</td>
<td>0.7000</td>
</tr>
<tr>
<td>Sleeve structural embellishment</td>
<td>0.9310</td>
</tr>
<tr>
<td>Sleeve surface embellishment</td>
<td>0.8000</td>
</tr>
</tbody>
</table>

\(^a\) n=25 unless otherwise indicated.  
\(^b\) n<25.
Table 4. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>percent agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>(sleeve and cuff, cont'd.)</td>
<td></td>
</tr>
<tr>
<td>Presence of cuff</td>
<td>0.9630</td>
</tr>
<tr>
<td>Cuff style&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.9655</td>
</tr>
<tr>
<td>Other cuff or sleeve hem structural interest&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.7500</td>
</tr>
<tr>
<td>Cuff or sleeve hem surface embellishment</td>
<td>0.7123</td>
</tr>
<tr>
<td>Waistline and below</td>
<td></td>
</tr>
<tr>
<td>Waistline embellishment&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.6441</td>
</tr>
<tr>
<td>Presence of peplum</td>
<td>0.9333</td>
</tr>
<tr>
<td>Below waistline structural embellishment&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.5854</td>
</tr>
<tr>
<td>Below waistline surface embellishment&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.8571</td>
</tr>
<tr>
<td>Skirt</td>
<td></td>
</tr>
<tr>
<td>Hem shape</td>
<td>0.8810</td>
</tr>
<tr>
<td>Presence of border&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.8780</td>
</tr>
<tr>
<td>Border embellishment&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.6667</td>
</tr>
<tr>
<td>Skirt structural embellishment</td>
<td>0.8155</td>
</tr>
<tr>
<td>Skirt surface embellishment</td>
<td>0.7885</td>
</tr>
<tr>
<td>Skirt closure or opening</td>
<td>0.8706</td>
</tr>
</tbody>
</table>
Analysis of Data

Evaluation of Hypotheses and Definition of "Observation"

For each instrument item (i.e., garment feature), the relationships between three pairs of variables were ultimately examined. In order to evaluate the hypotheses, the relationship between year/women's role ambiguity (the independent variable) and diversity in dress (the dependent variable) was the first to be evaluated.

As will be discussed further, the yearly number of observations for a given instrument item/garment feature was also examined as part of the data analysis. "Observation" was defined somewhat differently for multiple-choice items as opposed to the other two item categories (i.e., body location scales and semantic differential scales). For some multiple-choice items, one observation could consist of more than one response on the part of the coder. For example, when coding bodice surface embellishment for a single costume layer, the coder indicated all the types of surface embellishments that were found on that bodice layer; regardless of the number of categories indicated, all these responses constituted one observation of bodice surface embellishment for that costume layer.

In contrast, for body location scales and semantic differential scales, the number of coder responses was generally equal to the number of observations. In other words, each response to one of these items equalled one
occurrence of the garment feature described by the individual item. For example, for each fashion illustration, each response to the sleeve length item indicated that a new sleeve was observed.

**Calculation of Diversity for Multiple-Choice Items**

For each multiple-choice item, the data were arranged in cross tabulations depicting the possible response categories by year; numbers within individual cells reflected how many times a type or style of the garment feature coded was indicated for a given year. Data for each garment layer were recorded in separate cross tabulations. For each year, the number of different categories observed was added across layers.

Added to the number of categories indicated for each year was the number of "other" types. The number of "other" responses indicated for a given year were reconciled with the number of "others" documented on the separate list (i.e., the number of "others" listed separately was compared to the number of "others" indicated on the response forms; coder errors which caused the numbers to differ were corrected). For each year, similar "others" were grouped together to form new response categories, and the number of these new categories was added to the original number of categories indicated via the instrument. This sum was used as the index of diversity for the multiple-choice items; it reflected the total number of different types of styles of a particular
garment feature (e.g., number of different sleeve styles) observed for a given year.

**Calculation of Diversity for Body Location Scales and Semantic Differential Scales**

The data from the body location scales and the semantic differential scales were also arranged in cross tabulations depicting the possible response categories—or, in this case, scale values—by year. Again, numbers within individual cells reflected how many times a scale value was indicated for a given year. For most of these items, the numbers in each cell reflected all the layers combined. For certain items where data pertaining to only first layers were deemed useful, the numbers in each cell represented first layers only (e.g., bodice fit). For each year, an index of diversity was obtained by computing standard deviation for the distribution of responses.

**Measurement of Association between Variables**

For each instrument item, the index of diversity (i.e., number of categories or standard deviation) was plotted against year using simple line graphs. The number of observations for each year was also plotted to provide insight as to why diversity might suddenly decline for a given year or span of years. While the number of fashion illustrations analyzed for each year was constant, the number observations for a given costume feature varied from year to year due to garment layering or the occasional exclusion of a garment...
component. Fashion change sometimes led to the elimination of a garment feature for a period of time, which might explain why diversity either sharply declined or simply could not be measured due to lack of observations. For example, as time passed, bodices began to end at the waistline rather than extend into the skirt area (see Figure 1); thus, items which described the portion of the bodice that extended below the waistline were either coded less often or not at all for these later years. Such information would have to be taken into consideration when interpreting the data.

Plotting the number of observations by year quickly revealed what appeared to be a consistent pattern; for many of the items which described features of the bodice or upper region, the number of observations appeared to increase with time. Conversely, for items which described features of the skirt, the number of observations tended to decrease with time. Plotting the frequency of first, second, and third garment layers observed, respectively, for each year confirmed the trend of an increase in the number of bodice layers with time, and a decrease in the number of skirt layers with time (see Figures 2 and 3).

In addition, for some of the items, the pattern in diversity seemed to follow the pattern in number of observations—as the number of observations increased, diversity also increased; as the number of observations decreased, diversity also decreased. For these reasons, I
Figure 1. The costume at the left illustrates a style of bodice which extends beyond the waistline; these types of bodices were typical of the earlier half of the period. The costume at the right illustrates a style of bodice which stops at the waistline; these types of bodices were typical of the latter half of the period. Illustration at left from the *Delineator,* July 1882, p. 4. Illustration at right from the *Delineator,* March 1906, p. 969.
Figure 2. Frequency of 1st, 2nd, and 3rd Bodice Layers Observed by Year.
Figure 3. Frequency of 1st, 2nd, and 3rd Skirt Layers Observed by Year.
decided that the relationship between (1) year and number of observations and (2) diversity and number of observations also needed to be examined.

Graphical depiction of the variable pairs (i.e., diversity by year, number of observations by year, and number of observations by diversity) provided a visual description of the associations between variables. Spearman rank correlation coefficient was used to obtain an objective measure of these relationships. According to Daniel (1990), the Spearman coefficient may be used as a test for trend in time series data, where one of the variables is time-dependent (i.e., year as a measure of women's role ambiguity). The Spearman correlation measures the consistency of a relationship between two variables, but does not require the relationship to be linear (Gravetter, F. J., & Wallnau, L. B., 1988). Therefore, for individual instrument items, Spearman rank correlation coefficient was used to measure the association between the three sets of bivariate data.

Autocorrelation, or the relationship between observations within the data series, is sometimes a concern with time-related data. If there is strong autocorrelation in a data series, standard inferential statistical methods are considered inappropriate (W. Meeker, personal communication, November 12, 1995). Some fashion features, such as silhouette, are believed to run in cycles, and cycles can lead to autocorrelation. However, the concern with the present
study is not the dress features themselves but rather the diversity in those features at given points of time. In addition, the three year gap between sample years make the possibility of autocorrelation less likely.

**Levels of Significance**

For the Spearman rank correlation coefficients calculated, the alpha level was set at the .10 level of significance (i.e., p < .10). Taking into consideration the number of illustrations coded, the complexity of the illustrated costumes, and the thoroughness of the coding instrument, I considered an alpha level higher than .05 appropriate. Also, the first application of the coding instrument seemed to require a slightly more lenient alpha level.

The Spearman rank correlation coefficient tables distinguish among items achieving a significance level of less than .01, .05, and .10, respectively. It is worth noting that the majority of the significant relationships had a p-value of less than .05.

**Assumptions and Limitations**

Based on the methods described, assumptions and limitations for the study are stated below.

**Assumptions**

1. For the years studied, the sample of fashion illustrations was representative of (a) the fashions promoted
to middle and upper middle-class, white women and (b) what this group of women actually wore.

2. The primary evidence used in studying women's social roles (i.e., the issues of Harper's Bazar reviewed) served as an accurate indicator of generally accepted views.

3. Diversity in clothing styles was achieved through diversity in the styling of individual garment features, such as those measured by the visual analysis instrument.

Limitations

1. Only the category of women's daytime dress as defined in the Methods section was studied. Other categories, such as evening costumes and lounging costumes, were excluded from the research.

2. Data on women's daytime dress was obtained from fashion illustrations as opposed to actual garments. Coders relied on the illustrators' abilities to communicate the various qualities of the costumes in their drawings.

3. Regional differences regarding women's dress were not considered. For example, the daytime dress of women living in less settled areas of the United States as opposed to that of women living in more urban areas of the country were not considered.

4. Individuals who served as coders for the sample of fashion illustrations were female and of similar ethnic backgrounds. Although interrater reliability was assessed, it is not known to what extent race, sex, or other perceiver
variables might have influenced interpretation of the fashion illustrations or the visual analysis instrument.
FINDINGS AND INTERPRETATIONS

The discussion of the findings will be broken down by type of instrument item (i.e., multiple-choice items, body location scales, and semantic differential scales). For each category of instrument item, the three pairs of variable comparisons (i.e., diversity by year, number of observations by year, and number of observations by diversity) will be discussed, and an interpretation of those findings will be presented. The chapter will end with an interpretation of the findings as a whole; suggestions for further research will be offered in the conclusion.

Findings for Multiple-Choice Items

Of the 22 multiple-choice items analyzed, 17 described features of the bodice or upper region of the costume and 5 described features of the skirt.

Association between Diversity and Year

For half of the 22 multiple-choice items analyzed, a significant relationship between diversity and year was indicated; all of these items pertained to the bodice portion of the garment (see Table 5). All but two of these items showed a positive relationship between diversity and year (i.e., as time passed and women's roles became more ambiguous, diversity in these costume features increased). These items included character of the bodice layer, bodice structural embellishment, bodice surface embellishment, neckline shape,
Table 5. Spearman Rank Correlation Coefficients for Number of Categories by Year, Multiple Choice (Nominal) Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upper Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character of layer</td>
<td>0.72345</td>
<td>0.0035***</td>
</tr>
<tr>
<td>Bodice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bodice closure or opening</td>
<td>-0.09245</td>
<td>0.7533</td>
</tr>
<tr>
<td>Bodice structural embellishment</td>
<td>0.84681</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Bodice surface embellishment</td>
<td>0.59497</td>
<td>0.0248**</td>
</tr>
<tr>
<td><strong>Neckline and collar</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline shape</td>
<td>0.58781</td>
<td>0.0271**</td>
</tr>
<tr>
<td>Collar style</td>
<td>-0.45267</td>
<td>0.1041</td>
</tr>
<tr>
<td>Collar, lapel, neckline surface embellishment</td>
<td>0.56832</td>
<td>0.0340**</td>
</tr>
<tr>
<td>Additional neckline decoration</td>
<td>0.32039</td>
<td>0.2641</td>
</tr>
</tbody>
</table>

* $p<.10$
** $p<.05$
*** $p<.01$
Table 5. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sleeve and cuff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armscye style</td>
<td>0.79282</td>
<td>0.0007***</td>
</tr>
<tr>
<td>Sleeve style</td>
<td>0.78719</td>
<td>0.0008***</td>
</tr>
<tr>
<td>Sleeve structural embellishment</td>
<td>0.59849</td>
<td>0.0238**</td>
</tr>
<tr>
<td>Sleeve surface embellishment</td>
<td>0.42736</td>
<td>0.1275</td>
</tr>
<tr>
<td>Other cuff or sleeve hem structural interest</td>
<td>-0.19150</td>
<td>0.5119</td>
</tr>
<tr>
<td>Cuff or sleeve hem surface embellishment</td>
<td>-0.21729</td>
<td>0.4555</td>
</tr>
<tr>
<td><strong>Waistline and below</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waistline embellishment</td>
<td>0.69205</td>
<td>0.0061***</td>
</tr>
<tr>
<td>Below waistline structural embellishment</td>
<td>-0.76601</td>
<td>0.0014***</td>
</tr>
<tr>
<td>Below waistline surface embellishment</td>
<td>-0.76075</td>
<td>0.0016***</td>
</tr>
</tbody>
</table>
Table 5. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skirt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hem shape</td>
<td>-0.37303</td>
<td>0.1890</td>
</tr>
<tr>
<td>Border embellishment</td>
<td>-0.27074</td>
<td>0.3492</td>
</tr>
<tr>
<td>Skirt structural embellishment</td>
<td>-0.45267</td>
<td>0.1041</td>
</tr>
<tr>
<td>Skirt surface embellishment</td>
<td>-0.18838</td>
<td>0.5190</td>
</tr>
<tr>
<td>Skirt closure or opening</td>
<td>-0.27125</td>
<td>0.3482</td>
</tr>
</tbody>
</table>
collar surface embellishment, armseye style, sleeve style, sleeve structural embellishment, and waistline embellishment. The items which showed a significant negative relationship between diversity and year included below the waistline bodice structural and surface embellishment, respectively. All of the multiple-choice items which described features of the skirt showed nonsignificant, negative relationships between diversity and year. It may be that the direction of the relationships between diversity and year for below waistline structural and surface embellishment, respectively, was consistent with the direction of the non-significant relationships between diversity and year for items pertaining to the skirt because this portion of the bodice visually existed in the skirt region.

**Association between Number of Observations and Year**

A significant relationship between number of observations and year was indicated for all of the multiple-choice items analyzed except for two--cuff structural embellishment and waistline embellishment (see Table 6). The significant relationships were positive for items pertaining to the bodice or upper portion of the garment (with the exception of the armseye style item and the below the waistline bodice structural and surface embellishment items, which were significantly negative) and negative for items describing the skirt. These trends reflect the increase in the number of
Table 6. Spearman Rank Correlation Coefficients for Number of Observations by Year, Multiple Choice (Nominal) Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upper Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character of layer</td>
<td>0.77313</td>
<td>0.0012***</td>
</tr>
<tr>
<td>Bodice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bodice closure or opening</td>
<td>0.78588</td>
<td>0.0009***</td>
</tr>
<tr>
<td>Bodice structural embellishment</td>
<td>0.74199</td>
<td>0.0024***</td>
</tr>
<tr>
<td>Bodice surface embellishment</td>
<td>0.74199</td>
<td>0.0024***</td>
</tr>
<tr>
<td>Neckline and collar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline shape</td>
<td>0.75855</td>
<td>0.0017***</td>
</tr>
<tr>
<td>Collar style</td>
<td>0.75193</td>
<td>0.0019***</td>
</tr>
<tr>
<td>Collar, lapel, neckline surface embellishment</td>
<td>0.73707</td>
<td>0.0026***</td>
</tr>
<tr>
<td>Additional neckline decoration</td>
<td>0.78855</td>
<td>0.0008***</td>
</tr>
</tbody>
</table>

* $p<.10$
** $p<.05$
*** $p<.01$
Table 6. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sleeve and cuff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armscye style</td>
<td>-0.65827</td>
<td>0.0105**</td>
</tr>
<tr>
<td>Sleeve style</td>
<td>0.50329</td>
<td>0.0666*</td>
</tr>
<tr>
<td>Sleeve structural embellishment</td>
<td>0.84395</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Sleeve surface embellishment</td>
<td>0.72677</td>
<td>0.0032***</td>
</tr>
<tr>
<td>Other cuff or sleeve hem structural interest</td>
<td>-0.34615</td>
<td>0.2254</td>
</tr>
<tr>
<td>Cuff or sleeve hem surface embellishment</td>
<td>0.53693</td>
<td>0.0477**</td>
</tr>
<tr>
<td><strong>Waistline and below</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waistline embellishment</td>
<td>0.10319</td>
<td>0.7256</td>
</tr>
<tr>
<td>Below waistline structural embellishment</td>
<td>-0.76244</td>
<td>0.0015***</td>
</tr>
<tr>
<td>Below waistline surface embellishment</td>
<td>-0.77791</td>
<td>0.0011***</td>
</tr>
</tbody>
</table>
Table 6. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skirt closure or opening</td>
<td>-0.71376</td>
<td>0.0041***</td>
</tr>
<tr>
<td>Skirt structural embellishment</td>
<td>-0.64143</td>
<td>0.0134**</td>
</tr>
<tr>
<td>Skirt surface embellishment</td>
<td>-0.52521</td>
<td>0.0538*</td>
</tr>
<tr>
<td>Border embellishment</td>
<td>-0.71376</td>
<td>0.0041***</td>
</tr>
<tr>
<td>Hem shape</td>
<td>-0.70401</td>
<td>0.0049***</td>
</tr>
</tbody>
</table>
bodice layers with time and the decrease in the number of skirt layers with time.

The number of observations for armscye style decreased with time due to the increasing presence of wide collars and lapels (and, for 1894, bretelles--see Appendix B) which obscured the armscye, making it impossible to code (see Figure 4). The significant negative relationships between number of observations and year for below the waistline structural and surface embellishment, respectively, may be explained by the occurrence of fewer bodices which extended below the waistline in the later years of the period studied. This trend in bodice length may also account for the decrease in diversity for below the waistline bodice structural and surface embellishment with time (see Figures 5 and 6).

**Association between Number of Observations and Diversity**

The relationship between number of observations and diversity for each multiple-choice item was then analyzed directly. For over half (68%) of the multiple-choice items, a significant relationship existed between diversity and number of observations (see Table 7). Items which showed a significant relationship between these two variables occurred in both the bodice and the skirt. With the exception of one item--armscye style--all of these significant relationships were positive (i.e., diversity increased as number of observations increased, and diversity decreased as number of observations decreased). Among these items were those
Figure 4. Left, an example of armscyes obscured by bretelles. Right, an example of armscyes obscured by a shawl collar. Illustration at left from the Delineator, March 1894, p. 190. Illustration at right from Harper's Bazar, March 1912, p. 120.
Figure 5. Below the Waistline Bodice Structural Embellishment: Number of Categories and Number of Observations by Year, Respectively.
Figure 6. Below the Waistline Bodice Surface Embellishment: Number of Categories and Number of Observations by Year, Respectively.
Table 7. Spearman Rank Correlation Coefficients for Number of Observations by Number of Categories, Multiple Choice (Nominal) Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>r&lt;sub&gt;S&lt;/sub&gt;</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upper Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character of layer</td>
<td>0.68426</td>
<td>0.0070***</td>
</tr>
<tr>
<td>Bodice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bodice closure or opening</td>
<td>0.00000</td>
<td>1.0000</td>
</tr>
<tr>
<td>Bodice structural embellishment.</td>
<td>0.60535</td>
<td>0.0218**</td>
</tr>
<tr>
<td>Bodice surface embellishment</td>
<td>0.53964</td>
<td>0.0464**</td>
</tr>
<tr>
<td><strong>Neckline and collar</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline shape</td>
<td>0.49562</td>
<td>0.0715*</td>
</tr>
<tr>
<td>Collar style</td>
<td>-0.41278</td>
<td>0.1424</td>
</tr>
<tr>
<td>Collar, lapel, neckline surface embellishment</td>
<td>0.41999</td>
<td>0.1349</td>
</tr>
<tr>
<td>Additional neckline decoration</td>
<td>0.30575</td>
<td>0.2877</td>
</tr>
</tbody>
</table>

* p<.10
** p<.05
*** p<.01
Table 7. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>( r_s )</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sleeve and cuff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armscye style</td>
<td>-0.54922</td>
<td>0.0419**</td>
</tr>
<tr>
<td>Sleeve style</td>
<td>0.71423</td>
<td>0.0041***</td>
</tr>
<tr>
<td>Sleeve structural embellishment</td>
<td>0.57778</td>
<td>0.0305**</td>
</tr>
<tr>
<td>Sleeve surface embellishment</td>
<td>0.49186</td>
<td>0.0740*</td>
</tr>
<tr>
<td>Other cuff or sleeve hem structural interest</td>
<td>0.51267</td>
<td>0.0609*</td>
</tr>
<tr>
<td>Cuff or sleeve hem surface embellishment</td>
<td>0.12589</td>
<td>0.6680</td>
</tr>
<tr>
<td><strong>Waistline and below</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waistline embellishment</td>
<td>0.21894</td>
<td>0.4520</td>
</tr>
<tr>
<td>Below waistline structural embellishment</td>
<td>0.85794</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Below waistline surface embellishment</td>
<td>0.72559</td>
<td>0.0033***</td>
</tr>
</tbody>
</table>
Table 7. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skirt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hem shape</td>
<td>0.76442</td>
<td>0.0015***</td>
</tr>
<tr>
<td>Border embellishment</td>
<td>0.41116</td>
<td>0.1441</td>
</tr>
<tr>
<td>Skirt structural embellishment</td>
<td>0.67007</td>
<td>0.0087***</td>
</tr>
<tr>
<td>Skirt surface embellishment</td>
<td>0.48917</td>
<td>0.0759*</td>
</tr>
<tr>
<td>Skirt closure or opening</td>
<td>0.63352</td>
<td>0.0150**</td>
</tr>
</tbody>
</table>
measuring structural embellishment for the bodice, sleeve, cuff, below the waistline bodice, and skirt; those measuring surface embellishment for bodice, sleeve, below the waistline bodice, and skirt; character of the bodice layer; neckline shape; sleeve style; hem shape; and skirt closure.

**Interpretation of Findings for Multiple-Choice Items**

Of the three types of items composing the coding instrument, the multiple-choice items revealed most dramatically the relationship between the number of observations and year. In general, the number of observations increased with time for bodice features and decreased with time for skirt features. This may be because features measured by multiple-choice items could be coded on second and third garment layers even if much of the layer was obscured; coders could respond to these items based on what was visible. Coders were less likely to be able to respond to the body location scales and the semantic differential scales when coding second and third layers due to features hidden by first and second layers, respectively. Therefore, the yearly number of observations for multiple-choice items was fairly consistent with the yearly number of garment layers observed.

The next most consistently significant relationship among the multiple-choice items was number of observations by diversity. For both the upper portion and skirt portion of the costumes, diversity tended to be directly related to the number of observations. In other words, for the majority of
features measured by multiple-choice items, a greater variety of styles occurred during years when more layers were evident in women's daytime costumes.

The findings regarding the relationship between diversity and year for garment features measured by the multiple-choice items offered some evidence to support the hypothesis that an increase in the diversity of fashion would occur with women's increasing role ambiguity. However, it should be noted that the increases in diversity were confined to the bodices or upper regions of the costumes, and were accompanied by significant increases in observations or garment layers. Moreover, evidence was found to support the idea the number of observations or garment layers were positively related to diversity in styles.

Specifically, for items measuring character of the bodice layer, bodice structural embellishment, bodice surface embellishment, neckline shape, sleeve style, and sleeve structural embellishment, diversity increased with time, number of observations increased with time, and diversity increased with number of observations. For certain items, a significant positive relationship existed between diversity and number of observations even though a significant increase or decrease in diversity with time was not noted; these items included sleeve surface embellishment, cuff structural embellishment, skirt hem shape, skirt structural embellishment, skirt surface embellishment, and skirt closure.
Findings for Body Location Items

Of the 27 body location items analyzed, 18 described features of the bodice or upper portion of the costume, and 9 described features of the skirt.

Association between Diversity and Year

Fewer significant relationships were found between diversity and year among the body location items. Seven of the 27 items analyzed (26%)—neckline length; the neckline, upper chest, and breast area of the central torso area exposed; skirt length, both high and low; and width of skirt at the thigh location—showed a significant relationship between diversity and year (see Table 8). Of these items, those that described features of the bodice had a positive relationship, and those that pertained to features of the skirt had a negative relationship. Whether or not significant relationships were indicated, items which described features of the skirt all indicated negative relationships between diversity and year; with a few exceptions, most of the items pertaining to the bodice or upper region of the costume showed positive relationships between diversity and year.

Association between Number of Observations and Year

As mentioned, in coding second and third costume layers, coders were often unable to respond to body location items because these garment features were hidden by the outer layers of the costume. As a result, the number of observations per
Table 8. Spearman Rank Correlation Coefficients for Standard Deviation by Year, Body Location (Ordinal) Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_s$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline and collar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline length</td>
<td>0.85495</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Collar Width</td>
<td>-0.27473</td>
<td>0.3418</td>
</tr>
<tr>
<td>Lapel Width$^a$</td>
<td>0.16781</td>
<td>0.5837</td>
</tr>
<tr>
<td>Central torso area exposed:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline</td>
<td>0.68791</td>
<td>0.0065***</td>
</tr>
<tr>
<td>Upper chest</td>
<td>0.73187</td>
<td>0.0029***</td>
</tr>
</tbody>
</table>

$^a$ Only 13 pairs of observations were obtained for calculating the correlation coefficient.

$^b$ Only responses pertaining to the outermost layer were used in calculating standard deviation; $n \leq 18$ for each year.

$^c$ The response for either the left or right side of each layer's waistline was used in calculating standard deviation.

* $p<.10$
** $p<.05$
*** $p<.01$
Table 8. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(central torso area exposed, cont'd.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breast area</td>
<td>0.47692</td>
<td>0.0846*</td>
</tr>
<tr>
<td>Midriff area</td>
<td>0.29231</td>
<td>0.3105</td>
</tr>
<tr>
<td>Waistline</td>
<td>0.34505</td>
<td>0.2269</td>
</tr>
<tr>
<td>Hip area</td>
<td>-0.28791</td>
<td>0.3182</td>
</tr>
</tbody>
</table>

Sleeve and cuff

<table>
<thead>
<tr>
<th>Variable</th>
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<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleeve length</td>
<td>0.40044</td>
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</tr>
<tr>
<td>Sleeve silhouette:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cap$^b$</td>
<td>0.03084</td>
<td>0.9167</td>
</tr>
<tr>
<td>Upper arm$^b$</td>
<td>0.32783</td>
<td>0.2525</td>
</tr>
<tr>
<td>Elbow$^b$</td>
<td>0.29670</td>
<td>0.3030</td>
</tr>
<tr>
<td>Forearm$^b$</td>
<td>0.22637</td>
<td>0.4364</td>
</tr>
<tr>
<td>Wrist$^b$</td>
<td>-0.44176</td>
<td>0.1138</td>
</tr>
<tr>
<td>Variable</td>
<td>$r_g$</td>
<td>p-value</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Waistline and below</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waistline location:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>0.37624</td>
<td>0.1849</td>
</tr>
<tr>
<td>Side</td>
<td>0.35802</td>
<td>0.2088</td>
</tr>
<tr>
<td>Bodice length</td>
<td>-0.32747</td>
<td>0.2531</td>
</tr>
<tr>
<td><strong>Skirt</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skirt length at highest point</td>
<td>-0.70549</td>
<td>0.0048***</td>
</tr>
<tr>
<td>Skirt length at lowest point</td>
<td>-0.48571</td>
<td>0.0783*</td>
</tr>
<tr>
<td>Skirt silhouette:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waist$^b$</td>
<td>-0.09400</td>
<td>0.7493</td>
</tr>
<tr>
<td>Upper hip$^b$</td>
<td>-0.36933</td>
<td>0.1937</td>
</tr>
<tr>
<td>Lower hip$^b$</td>
<td>-0.31683</td>
<td>0.2697</td>
</tr>
<tr>
<td>Thigh$^b$</td>
<td>-0.56484</td>
<td>0.0353**</td>
</tr>
<tr>
<td>Knee$^b$</td>
<td>-0.20682</td>
<td>0.4781</td>
</tr>
</tbody>
</table>
Table 8. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calf$^b$</td>
<td>-0.21413</td>
<td>0.4623</td>
</tr>
<tr>
<td>Ankle$^b$</td>
<td>-0.19560</td>
<td>0.502</td>
</tr>
</tbody>
</table>

*skirt silhouette, cont'd.*
year for these items was often not consistent with the number of garment layers per year.

In addition, the number of observations for items measuring the sleeve and skirt silhouettes (i.e., sleeve and skirt width), respectively, were controlled in the sense that responses pertaining to only the outermost layer of each location along the sleeve and skirt were included in the data analysis. In this way, superfluous responses (i.e., more than one response to the same item due to garment layering) were discounted. For each year, then, a maximum of 18 observations for these items could be obtained\(^8\). When exactly 18 observations occurred for each year, no Spearman rank correlation coefficient could be calculated. When fewer than 18 observations occurred during certain years the correlation coefficient was calculated, as in the case of the sleeve width items and one of the skirt width items (see Table 9).

With these special situations in mind, note that 8 of the 21 body location items analyzed (38\%) had significant relationships between number of observations and year. Collar width and the upper chest, breast, and midriff areas of the central torso area exposed had significant positive relationships between number of observations and year; the central torso area exposed at the hip location, sleeve width at the cap location, and skirt length at the highest and lowest points all showed significant negative relationships between number of observations and year (see Table 9). The
Table 9. Spearman Rank Correlation Coefficients for Number of Observations by Year, Body Location (Ordinal) Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_s$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline and collar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline length</td>
<td>-0.08407</td>
<td>0.7751</td>
</tr>
<tr>
<td>Collar Width</td>
<td>0.67935</td>
<td>0.0075***</td>
</tr>
<tr>
<td>Lapel Width</td>
<td>-0.08407</td>
<td>0.7751</td>
</tr>
<tr>
<td>Central torso area exposed:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline</td>
<td>0.77043</td>
<td>0.0013***</td>
</tr>
<tr>
<td>Upper chest</td>
<td>0.78626</td>
<td>0.0009***</td>
</tr>
<tr>
<td>Breast area</td>
<td>0.56796</td>
<td>0.0341**</td>
</tr>
<tr>
<td>Midriff area</td>
<td>0.34970</td>
<td>0.2203</td>
</tr>
</tbody>
</table>

---

a Only responses pertaining to the outermost layer were used in calculating standard deviation; $n \leq 18$ for each year.

b The responses for either the left or right side of each layer's waistline was used in calculating standard deviation.

* $p<.10$
** $p<.05$
*** $p<.01$
Table 9. (continued)

<table>
<thead>
<tr>
<th>Variable (central torso area exposed, cont'd.)</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waistline</td>
<td>-0.09912</td>
<td>0.7360</td>
</tr>
<tr>
<td>Hip area</td>
<td>-0.51762</td>
<td>0.0580*</td>
</tr>
</tbody>
</table>

Sleeve and cuff

| Sleeve length                                   | 0.26149 | 0.3665  |
| Sleeve silhouette:                             |        |         |
| Cap$^a$                                         | -0.50637 | 0.0646* |
| Upper arm$^a$                                   | -0.37841 | 0.1822  |
| Elbow$^a$                                       | -0.20255 | 0.4874  |
| Forearm$^a$                                     | -0.30610 | 0.2872  |
| Wrist$^a$                                       | -0.29557 | 0.3049  |

Waistline and below

| Waistline location:                             |        |         |
| Front                                           | -0.07858 | 0.7895  |
| Side$^b$                                        | 0.31887  | 0.2665  |
Table 9. (continued)

<table>
<thead>
<tr>
<th>Variable (waistline and below, cont'd.)</th>
<th>( r_g )</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bodice length</td>
<td>0.10410</td>
<td>0.7232</td>
</tr>
</tbody>
</table>

**Skirt**

| Skirt length at highest point           | -0.71376 | 0.0041*** |
| Skirt length at lowest point            | -0.70401 | 0.0049*** |

**Skirt silhouette:**

- Waist\(^a\) \( 0.44721 \) 0.1089
- Upper hip\(^a\) n/a n/a
- Lower hip\(^a\) n/a n/a
- Thigh\(^a\) n/a n/a
- Knee\(^a\) n/a n/a
- Calf\(^a\) n/a n/a
- Ankle\(^a\) n/a n/a
increase in bodices which ended at the waistline would account for the decrease in the observations of central torso area exposed at the hip location. The decrease in the number of observations for skirt length at the highest and lowest points, respectively, is consistent with the decrease in number of skirt layers observed. The significant negative relationship between year and number of observations for sleeve width at the cap is probably explained (like the decrease in armseye style observations) by the increasing use of very wide collars and lapels, which would inhibit the coding of this garment feature (see Figure 4).

**Association between Number of Observations and Diversity**

An examination of the relationships between number of observations and diversity for the body location items revealed the largest number of significant relationships among the three pairs of variables, although the factors affecting the number of observations discussed above limited the number of relationships that could be measure for these items as well. Of the 21 items analyzed, 12 items (57%) showed a significant relationship between number of observations and diversity. Items showing a significant positive relationship between number of observations and diversity included all six items measuring central torso area exposed, sleeve length, and skirt length at the highest and lowest locations, respectively. Items showing a significant negative relationship between number of observations and diversity
included sleeve width at the elbow location, waistline location at the front, and skirt width at the waistline location (see Table 10).

**Interpretation of Findings for Body Location Items**

Minimal evidence for an association between diversity in dress and woman's role ambiguity was found among the body location items. The significant positive relationships between diversity and year occurred in features concentrated in the chest area of the costume--neckline length and the neckline, upper chest, and breast areas of the central torso area exposed. The last three features also indicated a significant increase in observations with time, and a significant positive relationship between number of observations and diversity. In other words, for these three features, the number of observations or layers increased with time, the diversity in styling increased with time, and the amount of bodice layering and diversity in styling increased together.

Items pertaining to the skirt portion of the costume characteristically showed negative relationships between diversity and year. Skirt length at the highest and lowest points, respectively, and width of skirt at the thigh location composed the three significant relationships. Like the three bodice features discussed above, the three pairs of comparisons for skirt length at the highest and lowest points, respectively, were consistently related. The diversity in
Table 10. Spearman Rank Correlation Coefficients for Number of Observations by Standard Deviation, Body Location (Ordinal) Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>r&lt;sub&gt;S&lt;/sub&gt;</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline and collar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline length</td>
<td>0.00442</td>
<td>0.9880</td>
</tr>
<tr>
<td>Collar Width</td>
<td>0.03341</td>
<td>0.9097</td>
</tr>
<tr>
<td>Lapel Width&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.16367</td>
<td>0.5932</td>
</tr>
<tr>
<td>Central torso area exposed:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neckline</td>
<td>0.89846</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Upper chest</td>
<td>0.85976</td>
<td>0.0001***</td>
</tr>
</tbody>
</table>

<sup>a</sup> Only 13 pairs of observations were obtained for calculating the correlation coefficient.

<sup>b</sup> Only responses pertaining to the outermost layer were used in calculating standard deviation; n ≤ 18 for each year.

<sup>c</sup> The response for either the left or right side of each layer's waistline was used in calculating standard deviation.

* * p<.10
** p<.05
*** p<.01
Table 10. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_a$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(central torso area exposed, cont'd.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breast area</td>
<td>0.78896</td>
<td>0.0008***</td>
</tr>
<tr>
<td>Midriff area</td>
<td>0.79294</td>
<td>0.0007***</td>
</tr>
<tr>
<td>Waistline</td>
<td>0.52203</td>
<td>0.0555*</td>
</tr>
<tr>
<td>Hip area</td>
<td>0.63877</td>
<td>0.0139**</td>
</tr>
</tbody>
</table>

Sleeve and cuff

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_a$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleeve length</td>
<td>0.70702</td>
<td>0.0047***</td>
</tr>
</tbody>
</table>

Sleeve silhouette:

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_a$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cap</td>
<td>0.40599</td>
<td>0.1498</td>
</tr>
<tr>
<td>Upper arm</td>
<td>-0.30995</td>
<td>0.2808</td>
</tr>
<tr>
<td>Elbow</td>
<td>-0.50637</td>
<td>0.0646*</td>
</tr>
<tr>
<td>Forearm</td>
<td>-0.33368</td>
<td>0.2436</td>
</tr>
<tr>
<td>Wrist</td>
<td>0.18890</td>
<td>0.5178</td>
</tr>
</tbody>
</table>
Table 10. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>r_g</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waistline and below</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waistline location:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>-0.46077</td>
<td>0.0973*</td>
</tr>
<tr>
<td>Side C</td>
<td>-0.35203</td>
<td>0.2171</td>
</tr>
<tr>
<td>Bodice length</td>
<td>-0.38539</td>
<td>0.1736</td>
</tr>
<tr>
<td>Skirt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skirt length at highest point</td>
<td>0.91066</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Skirt length at lowest point</td>
<td>0.78894</td>
<td>0.0008***</td>
</tr>
<tr>
<td>Skirt silhouette:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waist b</td>
<td>-0.47817</td>
<td>0.0837*</td>
</tr>
<tr>
<td>Upper hip b</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Lower hip b</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Thigh b</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Variable</td>
<td>$r_g$</td>
<td>p-value</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>(skirt silhouette, cont'd.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knee$^b$</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Calf$^b$</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Ankle$^b$</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>
skirt length at its highest and lowest points decreased with time, the number of shirt observations or layers also decreased with time, and the amount of skirt layering and diversity in skirt length decreased together (i.e., were positively related).

The comparatively large number of significant positive relationships between number of observations and diversity seems to point to an important relationship between number of layers in the garment and diversity in styles.

Findings for Semantic Differential Scale Items

Of the 29 semantic differential scales analyzed, 17 described features of the bodice or upper region, and 12 described features of the skirt.

Association between Diversity and Year

Analyses of the semantic differential scales revealed a significant relationship between diversity and year for 15 of the 29 items (52%). The same four items describing fabric characteristics in both the bodice and skirt sections indicated a significant positive relationship between diversity and year; the first three items described the surface texture, drape, and opacity of the fabric. The fourth item described, for fabrics having a discernible pattern, how distinctly the pattern stood out from the background. For the skirt section only, the item describing the gray scale value of the fabric color or colors showed a positive relationship between diversity and year (see Table 11).
Table 11. Spearman Rank Correlation Coefficients for Standard Deviation by Year, Semantic Differential Scale (Interval) Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upper Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fabric characteristics:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matte - shiny</td>
<td>0.11209</td>
<td>0.7028</td>
</tr>
<tr>
<td>Flat - 3-dimensional</td>
<td>0.82948</td>
<td>0.0002***</td>
</tr>
<tr>
<td>Stiff - flowing</td>
<td>0.89011</td>
<td>0.0001***</td>
</tr>
<tr>
<td>Opaque - transparent</td>
<td>0.59875</td>
<td>0.0237**</td>
</tr>
</tbody>
</table>

\(^a\) Only first layer observations were used in calculating standard deviation.

\(^b\) Only 13 pairs of observations were obtained for calculating the correlation coefficient.

\(^c\) For each year, n=18; one response was given for all the layers combined.

* p<.10
** p<.05
*** p<.01
Table 11. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(fabric characteristics, cont'd.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Patterned fabric:**

- Geometric - organic: $0.10769$, $0.7140$
- Regular - Irregular: $0.39604$, $0.1610$
- High contrast - low contrast: $0.56923$, $0.0336^{**}$
- Light - Dark: $0.34505$, $0.2269$

**Bodice**

- Fitted - loose$^a$: $0.45765$, $0.0999^*$
- Symmetric - asymmetric$^a$: $0.14286$, $0.6261$

**Neckline and collar**

- Collar, symmetric - asymmetric: $-0.24863$, $0.3914$
- Lapel, symmetric - asymmetric$^b$: $-0.31912$, $0.2879$

**Waistline and below**

- Waistline, fitted - loose: $0.55604$, $0.0389^{**}$
- Below waistline, fitted - loose$^{a,b}$: $0.02198$, $0.9432$
Table 11. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall bodice aesthetics:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angular - rounded$^C$</td>
<td>0.60879</td>
<td>0.0209**</td>
</tr>
<tr>
<td>Determinate - indeterminate$^C$</td>
<td>0.31868</td>
<td>0.2668</td>
</tr>
<tr>
<td>Simple - complex$^C$</td>
<td>0.22442</td>
<td>0.4405</td>
</tr>
<tr>
<td><strong>Skirt</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fabric characteristics:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matte - shiny</td>
<td>0.14286</td>
<td>0.6261</td>
</tr>
<tr>
<td>Flat - 3-dimensional</td>
<td>0.67033</td>
<td>0.0087***</td>
</tr>
<tr>
<td>Stiff - flowing</td>
<td>0.77143</td>
<td>0.0012***</td>
</tr>
<tr>
<td>Opaque - transparent</td>
<td>0.55069</td>
<td>0.0413**</td>
</tr>
<tr>
<td><strong>Patterned fabric:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geometric - organic</td>
<td>0.02860</td>
<td>0.9227</td>
</tr>
<tr>
<td>Regular - Irregular</td>
<td>-0.09011</td>
<td>0.7593</td>
</tr>
<tr>
<td>High contrast - low contrast</td>
<td>0.72607</td>
<td>0.0033***</td>
</tr>
<tr>
<td>Light - Dark</td>
<td>0.48132</td>
<td>0.0814*</td>
</tr>
</tbody>
</table>
Table 11. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skirt, symmetric - asymmetric$^a$</td>
<td>-0.46813</td>
<td>0.0914*</td>
</tr>
<tr>
<td>Overall skirt aesthetics:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angular - rounded$^c$</td>
<td>0.19362</td>
<td>0.5072</td>
</tr>
<tr>
<td>Determinate - indeterminate$^c$</td>
<td>-0.75248</td>
<td>0.0019***</td>
</tr>
<tr>
<td>Simple - complex$^c$</td>
<td>-0.55604</td>
<td>0.0380**</td>
</tr>
</tbody>
</table>
Other notable trends occurred in the bodice and waistline fit, respectively, both of which indicated significant positive relationships between diversity and year. In addition, symmetry of the skirt design showed a significant negative relationship between diversity and year.

Both the bodice and skirt sections of the instrument contained the three semantic differential scales which required an overall assessment combining all layers of those individual portions of the costumes (see Appendix B for a thorough explanation of these items). For the bodice section, only the "angular vs. rounded" scale revealed a significant positive relationship between diversity and year; greater use of both angular and rounded lines were evident in bodice designs as time passed. For the skirt section, significant negative relationships between diversity and year were revealed by the "determinate vs. indeterminate" scale and the "simple vs. complex" scale. As time passed, skirts became more homogeneous in the amount of determinacy and complexity in their styling.

**Association between Number of Observations and Year**

Fourteen of the semantic differential scales (67%) revealed a significant relationship between number of observations and year. Of these, all but one of the items describing features of the bodice showed a positive relationship; the items describing features of the skirt
showed a negative relationship. The item in the bodice portion which showed the negative significant relationship measured below the waistline fit; again, this trend is explained by the decrease in later years of bodices which extended past the waistline (see Table 12).

The relationship between number of observations and year was not examined for the "angular vs. rounded," "determinate vs. indeterminate," and "simple vs. complex" items in the bodice and skirt sections, respectively, because only one observation was made for all the layers combined. Subsequently, exactly 18 observations occurred per year. In addition, for items measuring bodice fit, bodice symmetry, and skirt symmetry, data pertaining to the outermost layer only (i.e., layer one) was used in measuring the relationship between diversity and year; responses to subsequent layers were considered to have little value as they were usually based on very small exposed areas of the garment layer. Therefore, for bodice fit and bodice symmetry, the relationship between number of observations and year were not analyzed; a correlation coefficient was calculated for skirt symmetry as fewer than 18 observations occurred for 2 years.

Seven items describing bodice fabric characteristics and the collar symmetry item indicated a significant positive relationship between number of observations and year. Five
Table 12. Spearman Rank Correlation Coefficients for Number of Observations by Year, Semantic Differential Scale (Interval) Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_s$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upper Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fabric characteristics:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matte - shiny</td>
<td>0.83316</td>
<td>0.0002***</td>
</tr>
<tr>
<td>Flat - 3-dimensional</td>
<td>0.83316</td>
<td>0.0002***</td>
</tr>
<tr>
<td>Stiff - flowing</td>
<td>0.83316</td>
<td>0.0002***</td>
</tr>
<tr>
<td>Opaque - transparent</td>
<td>0.82159</td>
<td>0.0003***</td>
</tr>
<tr>
<td>Patterned fabric:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geometric - organic</td>
<td>0.46605</td>
<td>0.0930*</td>
</tr>
<tr>
<td>Regular - Irregular</td>
<td>0.46605</td>
<td>0.0930*</td>
</tr>
<tr>
<td>High contrast - low contrast</td>
<td>0.43855</td>
<td>0.1167</td>
</tr>
<tr>
<td>Light - Dark</td>
<td>0.84769</td>
<td>0.0001***</td>
</tr>
</tbody>
</table>

*a Only first layer observations were used in calculating standard deviation.

*b For each year, $n = 18$; one response was given for all the layers combined.

* $p < .10$
** $p < .05$
*** $p < .01$
<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bodice</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fitted - loose(^a)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Symmetric - asymmetric(^a)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Neckline and collar</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collar, symmetric - asymmetric</td>
<td>0.65636</td>
<td>0.0108**</td>
</tr>
<tr>
<td>Lapel, symmetric - asymmetric</td>
<td>-0.08407</td>
<td>0.7751</td>
</tr>
<tr>
<td><strong>Waistline and below</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waistline, fitted - loose</td>
<td>0.10080</td>
<td>0.7317</td>
</tr>
<tr>
<td>Below waistline, fitted - loose(^a)</td>
<td>-0.88795</td>
<td>0.0001***</td>
</tr>
<tr>
<td><strong>Overall bodice aesthetics:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angular - rounded(^b)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Determinate - indeterminate(^b)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Simple - complex(^b)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Table 12. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r_g$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skirt</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fabric characteristics:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matte - shiny</td>
<td>-0.69460</td>
<td>0.0058***</td>
</tr>
<tr>
<td>Flat - 3-dimensional</td>
<td>-0.69460</td>
<td>0.0058***</td>
</tr>
<tr>
<td>Stiff - flowing</td>
<td>-0.69460</td>
<td>0.0058***</td>
</tr>
<tr>
<td>Opaque - transparent</td>
<td>-0.69460</td>
<td>0.0058***</td>
</tr>
<tr>
<td><strong>Patterned fabric:</strong></td>
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</tr>
<tr>
<td>Geometric - organic</td>
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<td>0.6222</td>
</tr>
<tr>
<td>Regular - Irregular</td>
<td>-0.14445</td>
<td>0.6222</td>
</tr>
<tr>
<td>High contrast - low contrast</td>
<td>-0.14445</td>
<td>0.6222</td>
</tr>
<tr>
<td>Light - Dark</td>
<td>-0.48512</td>
<td>0.0787*</td>
</tr>
<tr>
<td>Skirt, symmetric - asymmetric</td>
<td>-0.40510</td>
<td>0.1508***</td>
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</table>
Table 12. (continued)

<table>
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<tr>
<th>Variable</th>
<th>$\chi^2$</th>
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<tbody>
<tr>
<td>Overall skirt aesthetics:</td>
<td></td>
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</tr>
<tr>
<td>Angular - rounded</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Determinate - indeterminate</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Simple - complex</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>
items describing skirt fabric characteristics composed the significant negative relationships found between number of observations and year. Again, these findings reflect the increase in bodice layers and the decrease in skirt layers with time.

Association between Number of Observations and Diversity

For the semantic differential scales, the measures of association between number of observations and diversity yielded the smallest number of significant relationships. For both the bodice and skirt sections, the "flat versus 3-d" fabric item indicated a significant relationship between the two variables; however, for the bodice this relationship was positive, and for the skirt this relationship was negative. In other words, as the number of garment layers increased, diversity of fabric surface texture increased for bodice fabrics, but decreased for skirt fabrics (see Table 13).

Other significant positive relationships between number of observations and diversity were indicated for the bodice fabric "stiff vs. flowing" and "opaque vs. transparent" items. Significant negative relationships between the two variables occurred for the bodice fabric pattern "irregular vs. regular" item and the skirt symmetry item.

Interpretation of Findings for Semantic Differential Scale Items

The items measuring fabric characteristics revealed some of the more salient findings in this research. The same four
Table 13. Spearman Rank Correlation Coefficients for Number of Observations by Standard Deviation, Semantic Differential Scale (Interval) Items

<table>
<thead>
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<tr>
<td>Fabric characteristics:</td>
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<td></td>
</tr>
<tr>
<td>Matte - shiny</td>
<td>0.01326</td>
<td>0.9641</td>
</tr>
<tr>
<td>Flat - 3-dimensional</td>
<td>0.61726</td>
<td>0.0187**</td>
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<tr>
<td>Stiff - flowing</td>
<td>0.74918</td>
<td>0.0020***</td>
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<tr>
<td>Opaque - transparent</td>
<td>0.62934</td>
<td>0.0159**</td>
</tr>
</tbody>
</table>

*a* Only first layer observations were used in calculating standard deviation.

*b* Only 13 pairs of observations were obtained for calculating the correlation coefficient.

*c* For each year, $n = 18$; one response was given for all the layers combined.

* $p < .10$
** $p < .05$
*** $p < .01$
Table 13. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
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<td>(fabric characteristics, cont'd.)</td>
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<tr>
<td>Patterned fabric:</td>
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</tr>
<tr>
<td>Geometric - organic</td>
<td>0.11149</td>
<td>0.7043</td>
</tr>
<tr>
<td>Regular - Irregular</td>
<td>-0.60273</td>
<td>0.0225*</td>
</tr>
<tr>
<td>High contrast - low contrast</td>
<td>0.21263</td>
<td>0.4655</td>
</tr>
<tr>
<td>Light - Dark</td>
<td>0.15232</td>
<td>0.6032</td>
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<tr>
<td>Bodice</td>
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<td></td>
</tr>
<tr>
<td>Fitted - loose$^a$</td>
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<td>n/a</td>
</tr>
<tr>
<td>Symmetric - asymmetric$^a$</td>
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<td>n/a</td>
</tr>
<tr>
<td>Neckline and collar</td>
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<tr>
<td>Collar, symmetric - asymmetric</td>
<td>-0.32633</td>
<td>0.2548</td>
</tr>
<tr>
<td>Lapel, symmetric - asymmetric$^b$</td>
<td>0.36894</td>
<td>0.2148</td>
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Table 13. (continued)

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<td>Waistline, fitted - loose</td>
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<tr>
<td>Below waistline, fitted - loose(^a,!b)</td>
<td>0.09737</td>
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<td>n/a</td>
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<tr>
<td>Determinate - indeterminate(^c)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Simple - complex(^c)</td>
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<td>Fabric characteristics:</td>
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<td>Matte - shiny</td>
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<td>0.4867</td>
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<tr>
<td>Flat - 3-dimensional</td>
<td>-0.86439</td>
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<tr>
<td>Stiff - flowing</td>
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<td>0.2865</td>
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<tr>
<td>Opaque - transparent</td>
<td>-0.06939</td>
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Table 13. (continued)

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<tr>
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<tr>
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<tr>
<td>Skirt, symmetric - asymmetric$^a$</td>
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<tr>
<td>Overall skirt aesthetics:</td>
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<td>n/a</td>
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<tr>
<td>Determinate - indeterminate$^c$</td>
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<td>Simple - complex$^c$</td>
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<td>n/a</td>
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</table>
characteristics of fabrics in both the bodice and skirt became increasingly diverse with time despite the fact that the number of observations in the bodice increased with time, but the number of observations in the skirt decreased with time.

A closer evaluation of some of the fabric characteristics which became increasingly diverse—"flat vs. 3-d." "stiff vs. flowing," "opaque vs. transparent"—reveals the changes that took place in women's daytime dress fabrics between 1873 and 1912. At the outset of the period, medium weight fabrics, often constructed of a twill or rib weave, were used to create the fashions of the day. These fabrics appeared to have a slight surface texture, a moderate amount of drape, and to be opaque (see Figure 7). As time passed, especially after the turn of the century, a greater variety of fabric textures were used. The medium weight fabrics of the earlier years were still seen, but added to these were a variety of lacy fabrics and soft, flowing fabrics; sheerer fabrics also began to be used. Where lace was previously confined to trimmings, lace fabrics began to compose the main structure of the costume (see Figure 8). Around 1906, women's daytime costume often consisted of flowing skirts, puffs, and gathers which required soft, drapeable fabrics (see Figure 9). Toward the end of the period, the layering of sheer fabrics over opaque fabrics became fashionable (see Figure 10), thus adding to the increase in diversity of fabric characteristics.
Figure 7. This 1873 fashion illustration depicts a typical type of fabric used in women's daytime costumes; fabric is a medium-weight twill weave vignone with a moderate amount of stiffness. From Harper's Bazar, October 11, 1873, p. 652.
Figure 8. The afternoon toilette on the left illustrates the increased use of lacy fabrics in the main structure of women's daytime costumes after the turn of the century. From the Delineator, October 1900, p. 427.
Figure 9. The costume at the right illustrates the drapy, flowing skirt and the gathered fullness in the bodice typical of women's fashions from 1906. From the *Delineator*, March 1906, p. 401.
Figure 10. This gown illustrates the use of varied textured fabrics after the turn of the century. The skirt is made of a sheer voile draped over an opaque, dotted silk; a lustrous satin fabric adorns the midriff; and lacy fabrics are used at the elbows, under the arms, in the skirt yoke, and in the chemisette. From Harper's Bazar, October 1909, p. 940.
A greater diversity in the amount of contrast between fabric pattern and ground also appeared with time. In the earlier years of the period, contrast remained in the high to medium range; toward the second half of the period, a combination of bold and subtle patterns were seen as responses indicated that contrast ranged from high to low (see Figure 11, Tables 14 and 15).

An increase in the diversity of bodice fit and waistline fit with time was also evident. Bodice and waistline fit were both very snug in the earlier years studied. For both characteristics, fit not only became more relaxed but also became more varied with time (see Tables 16 and 17). In general, bodices started out very fitted (e.g., the cuirass bodice of the late 1870s and the basque bodice of the 1880s—see Figure 12). After about 1890, blousing in bodices became popular, especially after 1894. With the advent of the s-shaped silhouette at the turn of the century, women's bodices tended to fit snugly at the back, but bloused at the front to create the monobosom effect; this lent bodices a moderately fitted appearance (see Figure 13). A loose fit in the bodice seemed to reach its maximum in 1906, after which fit appears to have become more moderate to snug (see Table 16).

The increase in diversity for waistline fit over the forty year period can probably be explained by the concurrent trends in bodice styles. A tight-waisted appearance went
Figure 11. The 1912 gown on the left illustrates the use of a patterned fabric with a subtle contrast. Also from 1912, the morning gown at the right is made of a striped fabric with a high contrast. Illustration at left from Harper's Bazar, June 1912, p. 288. Illustration at right from Harper's Bazar, June 1912, p. 287.
Table 14. Distribution of Scores for High Contrast Vs. Low Contrast, Bodice Fabric\textsuperscript{a}, 1873 - 1912.

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<th>Score 2</th>
<th>Score 2.5</th>
<th>Score 3</th>
<th>Score 3.5</th>
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</table>

\textsuperscript{a}Data represents only those fabrics which had a discernible pattern. All three garment layers are included.
Table 15. Distribution of Scores for High Contrast Vs. Low Contrast, Skirt Fabric\textsuperscript{a}, 1873 - 1912

<table>
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<th>Score 2</th>
<th>Score 2.5</th>
<th>Score 3</th>
<th>Score 3.5</th>
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<th>Score 4.5</th>
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\textsuperscript{a}Data represents only those fabrics which had a discernible pattern. All three garment layers are included.
Table 16. Distribution of Scores for Bodice Fit\textsuperscript{a}, 1873 - 1912

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\textsuperscript{a}Data pertains to first layers of garments only.
Table 17. Distribution of Scores for Waistline Fit\textsuperscript{a}, 1873 - 1912

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\textsuperscript{a}Data pertains to first layers of garments only.
Figure 12. The 1879 costume at the left shows a front and back view of a house toilette, which has the snug, hip-hugging cuirass bodice. At the right, an illustration from 1885 depicts the basque bodice. Notice the snug fit through the body, and the characteristic arch over the hips. Illustration at left from Harper's Bazar, June 1879, p. 417. Illustration at right from the Delineator, June 1885, p. 426.
Figure 13. Both of these costumes from 1903 demonstrate the s-shaped silhouette; the bodice is bloused at the front to create the monobosom appearance, but the back of the bodice appears fitted. The whole effect is semi-fitted. From the Delineator, June 1903, p. 965.
hand-in-hand with the cuirass bodice and the "packed-in" appearance of the 1880s (see Figure 12). With the S-shaped styling in women's fashion, jackets were commonly worn open at the front, lending a loose-fitting appearance at the front waistline; underneath a more tightly fitted waistline was revealed (see Figure 14). Later on, as the tubular silhouette came into fashion, outer jackets of suits or ensembles required little to no fit in the waistline area. However, for dresses and gowns, the waistline remained high and tight fitting (see Figure 15).

For the bodice or upper region, the "angular vs. rounded" item indicated a significant positive relationship between diversity and time. In the earlier years of the period, bodices were generally snug-fitting. Corseting helped women to conform to the fashionable hourglass shape. Even when a tailored appearance was incorporated into the bodice design, the curvaceous lines inherent to the silhouette were still strongly evident. A less fitted style became increasingly popular in the later years; particularly at the bodice front, added fullness or blousing helped to achieve the amorphous, monobosom effect. With less fit required at the front, straighter lines could be achieved, especially in jackets; it was not uncommon to see a rigid, straightened look at the center front, while the tight fit at the back revealed the curving figure (see Figure 14). Curves in bodices still abounded, however, with Edwardian puffs and gathers.
Figure 14. This 1906 street suit illustrates how jackets were sometimes worn open, which emphasized the monobosom look. Toward the waistline, the jacket fits quite loosely at the front, the straight line of the opening uninterrupted by the waistline; however, the fit at the back appears to be quite snug. From Harper's Bazar, October 1906, p. 883.
Figure 15. Both of these 1909 costumes illustrate the tubular silhouette. The gown at the left, however, retains a snug fit in the bodice and at the waistline. The costume at the right consists of a jacket which falls almost straight from shoulder to hem. Illustration at left from the Delineator, March 1909, p. 322. Illustration at the right from the Delineator, October 1909, p. 263.
contributing toward the diversity in fit indicated during the later years. Toward 1909 and 1912, jackets and outer bodice layers were sometimes straight and unfitted at the waist, in keeping with the by-now popular tubular silhouette. However, as before, blousing and gathers still existed to provide a rounded quality to the bodice region, too (see Figure 16, right).

In the skirt area, the "determinate vs. indeterminate" and "simple vs. complex" items indicated a significant negative relationship between diversity and year. Toward the end of the period, skirts became homogeneous in terms of their degree of determinacy and complexity. Although skirts started out representing a range of determinacy, they became more concentrated toward the determinate end of the scale with time (see Table 18). While full styles, flowing fabrics, and low-contrast patterns lent a degree of indeterminacy to some of the skirts, the reduction in layers undoubtedly contributed toward the distinct boundaries associated with a more determinate appearance (see Figure 16).

The "simple vs complex" item also revealed a significant negative relationship between diversity and time. In general, skirts started out more varied and comparatively complex and became more homogeneous and simplified with time (see Figure 16 and Table 19). Because determinacy and complexity are conceptually related, it makes sense that the patterns in the diversity of these two features would follow one another;
Figure 16. The earlier costume at the left has a more complex, indeterminate skirt style. The skirt on the later costume at the right has a much simpler, determinate appearance. Illustration at left from *Harper's Bazar*, March 1885, p. 197. Illustration at right from the *Delineator*, October 1912, p. 235.
Table 18. Distribution of Scores for Determinate Vs. Indeterminate, Skirt, 1873 - 1912

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Table 19. Distribution of Scores for Simple Vs. Complex, Skirt, 1873 - 1912

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for both items, diversity was significantly negatively related
to year in the skirt region and positively--though not
significantly--related to time in the bodice region.

**Interpretation of Findings as a Whole**

In sum, evidence was found to support the null hypothesis
and the alternative hypothesis. Some garment features
exhibited no association between diversity and year, while
other features showed either a positive or a negative
association between the two variables. Features that
exhibited positive relationships between diversity and year
tended to occur in the bodice or upper regions of the
garments. Features that exhibited negative relationships
between diversity and year tended to occur in the skirt
regions of the garments (see Table 20).

Overall, the number of layers in the bodice or upper
regions of the garments increased with time; the number of
layers in the skirt regions tended to decrease with time.
Consistently, the significant relationship between number of
observations and year were mostly positive for features of the
bodice and negative for features of the skirt. The number of
observations for the multiple-choice items were found to be
most consistent with the number of garment layers because
coders were more likely to be able to respond to these items
even if only small portions of second and third layers were
Table 20. Number of Items Showing Significant Relationships Between the Three Paired Comparisons

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<td>Number of Observations X Year</td>
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<tr>
<td>Number of Observations X Diversity</td>
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<td><strong>Body Location Items (27)</strong></td>
<td><strong>Bodice (18)</strong></td>
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<td>Diversity X Year</td>
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<tr>
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<tr>
<td>Number of Observations X Diversity$^a$</td>
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</table>

$^a$For these variables, a Spearman correlation coefficient could not be calculated for some of the items (i.e., number of observations = 18 for each year).
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<tr>
<th>Variable Pairs</th>
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<td>Number of Observations X Year</td>
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</table>
visible. In addition, for some of the body location items and the semantic differential scales, number of observations were controlled so that a maximum of 18 observations could be made for any one year (i.e., responses were based on one layer or all layers combined simultaneously); for many of these items a correlation coefficient could not be calculated between number of observations and year or diversity.

For items describing features in both the bodice region and the skirt region, positive relationships were found between number of observations and diversity. These relationships were also most evident among the multiple-choice items. For 15 items describing features of the bodice region and 3 items describing features of the skirt, the three variables were all related, though not necessarily in the same way (see Table 21). Fabric characteristics measured by four of the semantic differential scales showed a positive relationship between diversity and year in both the bodice and skirt regions. A visual re-examination of the fabrics used in women's daytime fashions as represented by the sample illustrations confirmed a greater variety in the texture, drape, opacity, and pattern-ground contrast as time passed.

In conclusion, limited evidence was found to support the ambivalence theory of fashion in the context of late nineteenth and early twentieth century woman's fashion. Some of the features measured indicated no relationship between diversity and year, and some indicated a negative relationship
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<th>Number of Observations X Diversity</th>
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<td>Diversity X Year</td>
<td>Number of Observations X Year</td>
<td>Number of Observations X Diversity</td>
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<td>negative</td>
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<tr>
<td>sleeve style</td>
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<tr>
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<td>positive</td>
<td>positive</td>
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<tr>
<td>below waistline structural embellishment</td>
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<tr>
<td>below waistline surface embellishment</td>
<td>negative</td>
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<tr>
<td><strong>Skirt</strong></td>
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<tr>
<td>fabric, flat vs. 3-d</td>
<td>positive</td>
<td>negative</td>
<td>negative</td>
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<td>length at highest point</td>
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<td>negative</td>
<td>positive</td>
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<tr>
<td>length at lowest point</td>
<td>negative</td>
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between the two variables. The findings regarding the relationships between number of observations and year, and number of observations and diversity, point to other factors which may have had an influence on fashion diversity during the period studied. The following chapter will attempt to further interpret these findings and offer suggestions for future research.
The purpose of this study was to see if evidence could be found to support the ambivalence theory of fashion. This theory states that in a capitalistic marketplace, as ambivalence about cultural categories increases, diversity in clothing styles will also increase. Middle to upper middle-class white American woman's social role from the latter nineteenth century through the early twentieth century provided a suitable context in which to test the theory. Woman's role in society moved from one that was clearly defined toward one that became characterized by increasing ambiguity. In the earlier years of this period, woman's role was thought to be largely domestic. As they began to obtain higher educations, women increasingly sought a wider sphere of endeavor through club activities, social work, employment in the professions, and the right to vote. As women continued to challenge their traditional role, people's anxiety increased concerning the impact these changes would have on the home and society in general. The extent to which she embraced the "new" lifestyle varied from woman to woman.

Women's magazines published during this period and containing fashion illustrations (and contemporary literature on woman's social role) were available for data collection. A visual analysis instrument was designed to document thoroughly and systematically the clothing styles depicted in the
illustrations. Visual analysis methods used in previous studies were reviewed for ideas on how to design the instrument; some of these methods were modified and new ones were developed where necessary. The final instrument consisted of nominal, ordinal, and interval level measures used to record a variety of garment features in both the bodice and skirt of each illustrated fashion, as well as features which occurred on up to three garment layers.

The sample of fashion illustrations was coded using the visual analysis instrument. Multiple coders were used for the purpose of establishing interrater reliability. The data were analyzed by calculating, for each garment feature measured, an index of diversity for each sampled year; the number of observations was also noted. Using year as a measure of woman's role ambiguity, Spearman rank correlation coefficients were calculated to test for a consistent relationship between the variables (i.e., year, diversity, and number of observations).

Findings were mixed; some of the garment features measured indicated no relationship between diversity and year, some indicated a positive relationship between the diversity and year, and others indicated a negative relationship between the two variables. In addition, for some of the items, the number of observations—which varied according to the number of garment layers observed—was also found to be related to the diversity of clothing styles; in the majority of cases,
this relationship was positive. Of the garment features measured, as many significant positive relationships were found between number of observations and diversity as were found between diversity and year. For both pairs of variables, about half of these relationships occurred for the same instrument items (i.e., diversity, year, and number of observations were all positively related).

These findings shed added light on the pattern in diversity for women's fashions of this period. In general, between 1873 and 1912, the number of garment layers appeared to increase in the bodice region and decrease in the skirt region. This shift in layering seemed to be accompanied by a shift in garment bulk and possibly emphasis. Up until about 1891, bodices were generally snug-fitting and compact; however, skirts were voluminous and ornate (see Figure 17). During the 1890s, bulk and emphasis slowly crept into the bodice region, particularly in the form of voluminous sleeves which added bulk and emphasis in the shoulder area. Skirts became comparatively simplified; although still long, they tended to consist of fewer layers and often sported comparatively few embellishments. Matching skirts and jackets worn with a shirtwaist or blouse underneath were not uncommon. In keeping with the "new woman" image of the period, man-tailored features appeared in the form of vests, neckties, notched collars and lapels, and tweed-like fabrics (see Figures 17 and 18).
Figure 17. Typical daytime dress styles for select years. Illustration at left from Harper's Bazar, November 1876, p. 753. Illustration at center from Harper's Bazar, March 1888, p. 153. Illustration at right from Harper's Bazar, October 1891, p. 777.
Figure 18. More typical daytime dress styles for select years. Illustration at left from the *Delineator*, June 1894, p. 575. Illustration at center from the *Delineator*, October 1903, p. 525. Illustration at right from the *Delineator*, October 1912, p. 230.
The shoulder emphasis in women's daytime dress moved toward the wrist by about 1903 in the form of the bishop sleeve; it was about this time that the s-shaped silhouette reached its extremity. Skirts were still long, flared toward the hem, but usually consisted of single layers. Multiple layers in the bodice were common, though less emphasis was placed at the shoulders; rather, a puffed-out "monobosom" lent women the posture of an imposing matron. Although beyond the scope of this study, bulky pompadour hairstyles and large hats helped to give women a towering appearing, adding emphasis to the head and face (see Figure 18).

While the volume achieved at the shoulders in the 1890s was never revisited during the later years of the period, the appearance of multiple bodice layers continued to be in style, often achieved through the use of "chemisettes" or "yokes" which appeared to be partial garments or insets used to fill in the chest and neckline areas of the bodice. Ornamentation and interest were achieved in the bodice and sleeves through a variety of surface or structural embellishments. Overall, garments became less bulky in both the bodice and skirt, resulting in a tubular silhouette which came into vogue by 1909. Toward the end of the period, bulk was fairly evenly distributed, though emphasis appears to have remained in the bodice portion of the garments (see Figure 18).
Discussion of Findings and Suggestions for Further Research

While social-psychological forces undoubtedly helped to shape women's fashions of this period, the findings suggest that it may not have been in the manner suggested by the ambivalence theory of fashion. Consistent with symbolic interaction theory, many of the stylistic changes in women's daytime dress during this time seem to reflect changes occurring in woman's role--simplified garments which allowed greater freedom of movement would be necessary for women entering the public sphere, and these changes in fashion came about accordingly. It may be, too, that a shift in bulk or emphasis from the lower half of the body to the upper half in the form of multiple layers and diversity in styling was also symbolic of woman's role change. It may be suggested that emphasis in the lower half of the body symbolized women's childbearing function; emphasis in the upper half of the body, especially toward the head, may have symbolized woman's intellectual capacity. The bulky, restrictive skirts of the 1870s and 1880s surely helped to physically enforce the notion that women should stay at home and pursue more leisurely lifestyles. In the 1890s, simplified skirts and shoulder emphasis, along with man-tailored styling, gave women a more formidable, masculine appearance. As time progressed and the "new woman" was less of a novelty, less bulk at the shoulders
became fashionable, though women's clothing styles increasingly allowed freedom of movement.

Future research may focus on similar patterns in symbolic changes in women's dress in other time periods. Women's penetration of traditionally male-dominated spheres has waxed and waned over the years, and other instances when women have moved from the domestic sphere to the public sphere may show stylistic changes in dress similar to those which occurred in the Victorian and Edwardian Eras. For example, woman's "traditional" role seems to have been embraced during the years following World War II, and the tight-fitting bodices and voluminous skirts which defined Dior's "new look" became fashionable. In the late 1970s and early 1980s, a resurgent interest in women's occupation of the professional work place was accompanied by simplified skirts, extremely bulky shoulder pads, and "big hair."

Data from the present study which provide the most convincing evidence for the ambivalence theory of fashion are found among the garment features which showed a significant relationship between diversity and year, but no relationship between diversity and number of observations. Among these garment features were the four fabric characteristics of texture, drape, opacity, and figure-ground contrast in the skirt region. This diversity may be associated with ambivalent feelings about women's roles; surely fabrics contribute to the symbolic nature of clothing in addition to
other garment features. Developments in textile technology may also have made it possible to create more diverse fabrics at a faster pace and lower price, thus making them more prevalent in women's daytime fashion. Future research might also consider other factors that may have contributed to diversity in fabrics used in women's daytime costumes.

Although the change in women's fashion seems to reflect the changes that occurred in their lives, the extent to which fashion reflects ambivalence about women's social roles is more debatable. While the idea that clothing serves as a form of communication about the wearer is generally accepted, the nature of the message one seeks to convey may vary with time. In the present, individuality is celebrated and authority tends to be challenged. Moreover, it is often considered superficial if not immoral to judge someone based on his or her physical appearance. Dress codes, if they still exist, seem to have generally relaxed. Such an atmosphere allows one to experiment with different styles of dress in relative safety.

Things were not so 100 years ago. Previous research has indicated that clothing communicated social class as well as morality. Belonging to an inferior social class or having one's character called into question had socially disastrous consequences. Subsequently, donning the proper clothes was a matter of considerable importance. It was less likely for women to experiment with their appearances in such a climate.
Even with the eventual relaxation of the stricter Victorian rules of social conduct, the relaxed dress codes of the postmodern era would be slower in coming. In other words, historically, dress seems to have been an indicator of wealth and status; currently it seems to be celebrated as a medium for expressing one's attitudes or values. Future research might investigate not only changing attitudes about the importance of clothing in communicating information about the wearer, but variation in the nature of the message conveyed.

Changes in the fashion adoption process might be considered as well. In the late nineteenth century there was a clear fashion authority in Paris, and styles developed there were eagerly sought after in the United States. The going style seems to have been clearly defined and available in affordable forms to the woman who desired to dress fashionably. Today, haute couture seems to be less concerned with the clothing needs of real women by offering styles suitable for undetermined occasions and wearable by a select few. In other words, fashion sometimes seems to exist for fashion's sake alone. In this atmosphere, what is fashionable or appropriate to wear is open to interpretation, and the individual may struggle or revel, as the case may be, in defining this for him or herself. As a result, diversity in clothing may occur due to the absence of a clear fashion authority rather than cultural ambivalence.
In addition, ready-to-wear women's daytime dress would have only started to become available in the late nineteenth century. Many garments would have been custom made, and last year's garments were often remodeled to the current fashion. Today, clothes may be purchased "off the rack" and ready to wear from a multitude of retailers and are generally quickly discarded. In short, the changes which have occurred in the apparel marketplace have undoubtedly influenced the consumer's ability to communicate information about himself or herself through clothing symbols.

In conclusion, the present study supports the notion that at any given period in history many factors may shape fashion. History doesn't repeat itself completely; even if older aesthetic or social codes revive, technology moves ever forward. It may be for this reason that theories of fashion can rarely explain stylistic changes in dress for multiple time periods—it is incredible to think that the mix of so many variables might be the same on two different occasions. Researchers might keep this in mind when offering new theories to explain the fashion process.

This research also expands efforts in utilizing a visual analysis method for studying dress. The instrument developed for this study demonstrates the potential for thoroughness and consistency of the visual analysis method. The various scales of measurement may be used to efficiently describe the great complexity inherent in costume.
APPENDIX A

VISUAL ANALYSIS INSTRUMENT
Visual Analysis - Bodice or Upper Region

1. layer number: 1 2 3 (code only three)

2. character of layer being analyzed:
   (a) dress bodice (not clearly a separate piece from skirt)
   (b) "shirtwaist" or blouse
   (c) coordinated jacket or top
   (d) non-coordinated jacket
   (e) jumper top
   (f) vest
   (g) tunic
   (h) "under-blouse" or chemisette
   (i) other

For each layer, fill out the remaining items in this section (items 3 through 70). Begin with the outermost layer. Leave items blank that do not apply to the layer in question, or are not visible. For each item, check all that apply.

Fabric

3. matte 1 2 3 4 5 shiny
4. flat 1 2 3 4 5 3-dimensional
5. stiff 1 2 3 4 5 flowing
6. opaque 1 2 3 4 5 transparent

patterned:
7. geometric 1 2 3 4 5 organic
8. regular 1 2 3 4 5 irregular
9. high contrast 1 2 3 4 5 low contrast

patterned and/or solid*:
10. white 1 2 3 4 5 6 7 8 black (indicate two values if present, or indicate "9" if there are three or more values)
Design

**Bodice** (excluding neckline, collar, sleeves, and below waistline)

11. bodice fit: fitted 1 2 3 4 5 loose

12. bodice closure or opening:
   (a) none visible
   (b) center
   (c) off-center
   (d) surplice
   (e) other

bodice embellishment:

13. bodice *structural* embellishment:
   (a) none
   (b) epaulettes
   (c) gathers
   (d) pleats/tucks
   (e) pocket(s)
   (f) seams or darts
   (g) shirring
   (h) yoke
   (i) other
   (j) bretelles
   (a & e) contrasting panel(s)

14/15. bodice *surface* embellishment:
   (a) none
   (b) bow(s)
   (c) button(s)
   (d) continuous strip trim (braid, tape, ribbon, flat lace, etc.)
   (e) embroidery
   (f) facing/applique
   (g) fringe
   (h) ornament(s)
   (i) overlay
   (j) patch pocket(s)
   (a) pleated ruffle
   (b) gathered ruffle
   (c) stitching
   (d) other

16. eliminated
17. bodice symmetry (side to side):
   symmetric 1 2 3 4 5 asymmetric

Neckline and Collar

18. neckline length*10:
   low 1 2 3 4 5 6 7 8 9 10 high

19. neckline shape:
   (a) round
   (b) square
   (c) v-shape
   (d) sweetheart
   (e) cowl
   (f) other
   (g) worn open, doesn't close

20. basic collar type:
   flat 1 2 3 rolled (d) standing (e) none

21. collar/lapel material:
   (a) fabric, same as bodice
   (b) fabric, different from bodice
   (c) fur
   (d) other

22/23. collar style*:
   (a) notched
   (b) shawl
   (c) sailor/middy
   (d) cape
   (e) stole
   (f) Chinese/military
   (g) puritan/bertha
   (h) ruffle
   (i) yoke
   (j) rounded (ex., peter pan)
   (a) flare
   (b) cowl
   (c) lapel
   (d) scalloped
   (e) fichu
   (f) plain pointed collar
   (g) standing collar
   (h) other
   (i) man's shirt collar
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collar/lapel width at widest part:
24. collar: narrow 1 2 3 4 5 wide
25. lapel: narrow 1 2 3 4 5 wide

collar/lapel width

collar/lapel symmetry (side to side):
26. collar: symmetric 1 2 3 4 5 asymmetric
27. lapel: symmetric 1 2 3 4 5 asymmetric

28/29. collar, lapel, neckline surface embellishment:
(a) none
(b) bow(s)
(c) button(s)
(d) continuous strip trim (braid, tape, ribbon, flat lace, etc.)
(e) embroidery
(f) facing/applique
(g) fringe
(h) ornament(s)
(i) overlay
(j) pleated ruffle
(a) gathered ruffle
(b) stitching
(c) other

30. additional neckline decoration:
(a) none
(b) bow, bow tie
(c) jabot/cravat
(d) ornament or pin
(e) tie, loose
(f) tie, man's style tie knot
(g) other
central torso area not covered by outer layer*: 

(1=closed, 5=wide)

31. neckline: 1 2 3 4 5
32. upper chest: 1 2 3 4 5
33. breast area: 1 2 3 4 5
34. midriff area: 1 2 3 4 5
35. waistline: 1 2 3 4 5
36. hip area: 1 2 3 4 5

---

**Sleeve and Cuff**

37. sleeve material:

(a) fabric, same as bodice
(b) fabric, different from bodice
(c) fur
(d) other

38. armscye style*:

(a) set-in
(b) drop shoulder
(c) dolman
(d) raglan
(e) kimono
(f) other

39. sleeve length (to end of cuff)*:

(a) "cut in"
(b) sleeveless
(c) cap
(d) upper-upper arm
(e) lower-upper arm
(f) elbow
(g) three-quarter
(h) wrist
(i) below wrist
sleeve silhouette (including cuff)*:

rate width, narrow=1 and wide=5
40. cap: 1 2 3 4 5
41. upper arm: 1 2 3 4 5
42. elbow: 1 2 3 4 5
43. forearm: 1 2 3 4 5
44. wrist: 1 2 3 4 5

45/46. sleeve style*:

(a) basic fitted
(b) coat
(c) bishop
(d) empire puff
(e) elbow puff
(f) mutton leg
(g) pagoda
(h) sleeve with undersleeve
(i) lantern
(j) cap over sleeve
(a) sleeve with wing
(b) other
(c) puff

sleeve embellishment:

47. sleeve structural embellishment:

(a) none
(b) gathers
(c) pleats/tucks
(d) shirring
(e) other
(f) contrasting panel(s)

48. eliminated
49/50. sleeve surface embellishment:

(a) none
(b) bow(s)
(c) button(s)
(d) continuous strip trim (braid, tape, ribbon, flat lace, etc.)
(e) embroidery
(f) facing/applique
(g) fringe
(h) ornament(s)
(i) overlay
(j) pleated ruffle
(a) gathered ruffle
(b) stitching
(c) other

51. presence of cuff:

(a) yes
(b) no

52. cuff material:

(a) fabric, same as sleeve
(b) fabric, different from sleeve
(c) fur
(d) other

53. cuff style*:

(a) not turned back
(b) turned back

54. other cuff or sleeve hem structural interest*:

(a) split
(b) band/barrel
(c) lapped
(d) french
(e) ruffled or pleated
(f) scalloped or jagged
(g) flared
(h) other shaped
(i) other
55/56. cuff or sleeve hem surface embellishment:

(a) none
(b) bow(s)
(c) button(s)
(d) continuous strip trim (braid, tape, ribbon, flat lace, etc.)
(e) embroidery
(f) facing/applique
(g) fringe
(h) ornament(s)
(i) overlay
(j) pleated ruffle
(a) gathered ruffle
(b) stitching
(c) other

---

**Waistline and Below**

waistline location*:

1=high above  2=above  3=natural  4=below  5=low below

57. front: 1 2 3 4 5
58. back: 1 2 3 4 5
59. left side: 1 2 3 4 5
60. right side: 1 2 3 4 5

61. waistline fit: fitted 1 2 3 4 5 loose

62. waistline surface embellishment:

(a) none
(b) buckle belt
(c) tie belt/sash
(d) fabric band/strap
(e) button(s)
(f) bow(s)
(g) ornament(s)
(h) other
63/64. total length of bodice/jacket/etc. in question*:

(a) above waist
(b) natural waist area
(c) below waist
(d) hip area
(e) upper thigh
(f) above knee
(g) knee
(h) below knee
(i) calf
(j) ankle
(a) below ankle

65. presence of peplum:

(a) yes
(b) no
(c) partial

66. below waistline material:

(a) fabric, same as bodice
(b) fabric, different from bodice
(c) fur
(d) other

67. below waistline fit: fitted 1 2 3 4 5 loose

below waistline embellishment:

68. below waistline structural embellishment:

(a) none
(b) seams/darts
(c) pleats/tucks
(d) gathers
(e) flounce
(f) split panels
(g) pocket(s)
(h) other
(i) contrasting panel(s)
69/70. below waistline surface embellishment:

(a) none  
(b) bow(s)  
(c) button(s)  
(d) continuous strip trim (braid, tape, ribbon, flat lace, etc.)  
(e) embroidery  
(f) facing/applique  
(g) fringe  
(h) ornament(s)  
(i) overlay  
(j) patch pocket(s)  
(a) pleated ruffle  
(b) gathered ruffle  
(c) stitching  
(d) other

**Overall Bodice** (one evaluation for all layers combined)

71. angular 1 2 3 4 5 rounded

72. determinate 1 2 3 4 5 indeterminate

73. simple 1 2 3 4 5 complex
Visual Analysis - Skirt

74. layer number: 1 2 3 (code only three)

For each layer, fill out the remaining items in this section (#74-#107). Begin with the outermost layer. Leave items blank that do not apply to the layer in question, or are not visible. For each item, check all that apply.

Fabric

75. matte 1 2 3 4 5 shiny
76. flat 1 2 3 4 5 3-dimensional
77. stiff 1 2 3 4 5 flowing
78. opaque 1 2 3 4 5 transparent

patterned:

79. geometric 1 2 3 4 5 organic
80. regular 1 2 3 4 5 irregular
81. high contrast 1 2 3 4 5 low contrast

patterned and/or solid*:

82. white 1 2 3 4 5 6 7 8 black (indicate two values if present, or indicate "9" if there are three or more values)
Design

83/84. length of skirt layer at highest point:
   (a) hipline and above
   (b) upper thigh
   (c) above knee
   (d) knee
   (e) upper calf
   (f) lower calf
   (g) ankle
   (h) just above floor
   (i) floor length
   (j) short train
   (a) medium train
   (b) long train

85/86. length of skirt layer at lowest point:
   (a) hipline and above
   (b) upper thigh
   (c) above knee
   (d) knee
   (e) upper calf
   (f) lower calf
   (g) ankle
   (h) just above floor
   (i) floor length
   (j) short train
   (a) medium train
   (b) long train

width of skirt layer:
87. waist: 1 2 3 4 5 6 7 8 9 10
88. upper hip: 1 2 3 4 5 6 7 8 9 10
89. lower hip: 1 2 3 4 5 6 7 8 9 10
90. thigh: 1 2 3 4 5 6 7 8 9 10
91. knee: 1 2 3 4 5 6 7 8 9 10
92. calf: 1 2 3 4 5 6 7 8 9 10
93. ankle: 1 2 3 4 5 6 7 8 9 10
94. hem of layer (as cut or draped, excluding ripples from fullness):
   (a) straight
   (b) rounded
   (c) pointed
   (d) scalloped
   (e) other

95. presence of border:
   (a) yes
   (b) no
   (c) partial

border embellishment:

96. eliminated

97. eliminated

98/99. border characteristics:
   (a) none
   (b) bow(s)
   (c) button(s)
   (d) continuous strip trim (braid, tape, ribbon, flat lace, etc.)
   (e) embroidery
   (f) facing/applique
   (g) fringe
   (h) ornament(s)
   (i) overlay
   (j) pleated ruffle
   (a) gathered ruffle
   (b) stitching
   (c) other
   (d) circular ruffle
   (e) tucks
   (f) self band
skirt layer embellishment (excluding border):

100. skirt layer structural embellishment:

(a) none    (g) shirring
(b) draped   (h) tiers
(c) flounce  (i) yoke at waist
(d) gathers  (j) other
(e) gores/seams  (a & e) contrasting panel(s)
(f) pleats/tucks

101/102. skirt layer surface embellishment:

(a) none
(b) bow(s)
(c) button(s)
(d) continuous strip trim (braid, tape, ribbon, flat lace, etc.)
(e) embroidery
(f) facing/applique
(g) fringe
(h) ornament(s)
(i) overlay
(j) pleated ruffle
(a) gathered ruffle
(b) stitching
(c) other

103. skirt layer closure or opening:

(a) none visible
(b) center front
(c) off-center
(d) side (hip)
(e) other
(f) surplice

104. eliminated

105. eliminated

symmetry of skirt layer:

106. side to side: symmetric 1 2 3 4 5 asymmetric

107. eliminated
Overall Skirt (one evaluation for all layers combined)

108. angular 1 2 3 4 5 rounded
109. determinate 1 2 3 4 5 indeterminate
110. simple 1 2 3 4 5 complex
APPENDIX B

EXTENDED EXPLANATION OF THE VISUAL ANALYSIS INSTRUMENT
The following includes additional clarification of the different types of instrument items, and an item-by-item explanation of the visual analysis instrument. Items that were ultimately not used in the final version of the instrument are included here in order to account for the numbering of the items, and for whatever interest they may have as items that were found to be unworkable in their current form.

Further Descriptions of Item Types

Multiple Choice Items

Unique to the multiple-choice items was the response category "other," which lent an inductive quality to the visual analysis instrument. Coders indicated "other" when the feature of the garment described by the item was not represented by any of the response categories provided. When "other" was indicated, a description of the feature was documented on a separate list (referred to as the "other" list) and eventually used for inductive category formation.

The multiple-choice items may be divided into two general types; these include "embellishment items" and "style items."

Embellishment Multiple Choice Items

Embellishment multiple-choice items described manipulation of the structure or surface of a garment component for decorative purposes. For these items, coders indicated as many response categories as applied. Each response category for an embellishment item represented only
one form or "unit" of embellishment. Each response category for structural embellishment items named a different type of manipulation to the fabric structure (e.g., gathers, shirring, seams/darts\textsuperscript{11}), and each response category for surface embellishment items named a different type of applied trimming (e.g., buttons, bows, embroidery, etc.).

Consistently, in documenting embellishments coded as "other," each form of embellishment was listed separately on the other list as a unique type or category. The draped "girdle" provides an illustrative example. A style of bodice that occurred around the turn of the century was what may be called the draped girdle, which consisted of a wide, sash-like piece of draped fabric that composed the lower half of the bodice. The response categories provided in the "bodice structural embellishment" item did not describe this particular feature. The draped girdle was really a combination of features--it was possible to have a girdle that was not draped and draped fabric with no girdle. Therefore, "draped" and "girdle" were listed as two different "other" types for bodice structural embellishment. Items 13, 14/15, 28/29, 30, 47, 49/50, 55/56, 62, 68, 69/70, 96, 98/99, 100, and 101/102 comprised the embellishment multiple-choice items used in the final version of the instrument.

**Style Multiple Choice-Items**

Style multiple-choice items identified styles evident in the various garment components. Each response category for a
given style item named one distinctive style or type relative to the garment component described by that item. An asterisk denoted that a style guide (see Methods) accompanied the item. For some style items, coders indicated only one response category. It was sometimes possible, however, for two or more distinctive styles to be present in a single garment component (e.g., a yoke collar with a scalloped edge). Therefore, for other style items, coders indicated as many response categories as applied. For the most part, one response category was adequate in describing the style of a given garment component.

Coders indicated "other" when either the style of the garment component was completely distinct from any of the styles represented by the response categories, or the style was only partially represented by the listed categories. An example of this was the distinctive collar common during 1897 --it included a standing portion with an additional "flap" attached to the top edge of the collar; the flap split or dipped at the center front. In responding to the "collar style" item, coders indicated the response category "standing" in addition to "other," and documented the flap feature on the separate other list.

Items 2, 12, 19, 20, 22/23, 38, 45/46, 53, 54, 94, 103, and 104 comprised the style multiple-choice items used in the final version of the instrument.
Body Location Scales

Body location items measured where a garment feature was located on or in relationship to the body. For example, the "waistline location" item measured where on the figure the garment waistline was located; the "sleeve silhouette" items measured how far out from the figure's arm the sleeve reached at various points along the arm. Asterisks next to the body location items denoted that each was accompanied by a simple line drawing of a nude female figure with demarcations to represent the location of the different scale values pertaining to the particular item. Coders generally indicated one response only; for a limited number of these items, two responses were possible.

Items 18, 24, 25, 31-36, 39, 40-44, 57-60, 63/64, 83/84, 85/86, 87-93 comprised the body location scales used in the final version of the instrument.

Semantic Differential Scales

For the semantic differential scale items, coders rated the degree to which some part or parts of the illustrated costume possessed a particular abstract characteristic. These items generally consisted of 5-point scales anchored with bipolar adjectives. For example, the "bodice fit" item consisted of a 5-point scale with "fitted" anchored at one end, represented by a value of one, and "loose" anchored at the other end, represented by a value of five. Coders decided where on this continuum the fit of a bodice was represented.
For each item, coders indicated only one response. The items measuring fabric characteristics were unique in that up to three fabrics per garment layer were coded using each scale.

Items 3-10, 11, 16, 17, 26, 27, 48, 61, 67, 71-73, 75-82, 105, 106, 107, and 108-110 comprised the semantic differential scale items used in the final version of the instrument.

The Visual Analysis Instrument

General Instructions

Coders referred only to the front of the fashion illustrations in responding to the items in the instrument. Each layer of the costume was coded separately, beginning with the outermost layer and working toward the innermost layer; a maximum of three layers was coded.

Coders left an item blank when (1) the garment feature to which the item pertained did not exist in the costume or (2) that feature was completely hidden from view and could not be evaluated. When coding the second and third layers, coders responded to items based on what was visible in the illustration. For example, if only a portion of the chest area of a second layer bodice was visible under a first layer jacket, coders responded to items in the bodice sub-section (e.g., bodice fit, bodice structural embellishment, bodice surface embellishment, etc.) based on that portion of the second layer bodice that was visible.

If an additional bodice layer was suspected or known to be only a partial garment or attachment (i.e., a chemisette,
"yoke" or "sleeve facing", it was nevertheless coded as an additional layer as long as it appeared as such. Not only was it sometimes impossible to discern whether second or third layers were whole or partial, but coding partial garments as part of the adjacent layer would have resulted in a loss of style information.

In the description of the instrument that follows, response categories will be explained as necessary for the various multiple-choice items. An asterisk next to an item denotes that there was a visual figure or guide to accompany that item.

**Bodice or Upper Region**

1. **layer number:** 1 2 3 (code only three)

The first instrument item identified the layer of the bodice that was being coded. The outermost layer was coded "1," the next layer inward was coded "2," and next layer inward after that was coded "3." If more layers were visible underneath, they were left uncoded (this rarely occurred). Coders responded to the items that follow in the "bodice or upper region" section as they pertained only to the bodice layer identified by this item.
2. character of layer being analyzed:

(a) dress bodice (not clearly a separate piece from skirt)
(b) "shirtwaist" or blouse
(c) coordinated jacket or top
(d) non-coordinated jacket
(e) jumper top
(f) vest
(g) tunic
(h) "under-blouse" or chemisette
(i) other

The purpose of item 2 was to define the general type of bodice depicted in the fashion illustration. Coders indicated only one response category. The response categories were defined as follows:

A "dress bodice" was a bodice that was not clearly depicted as separate from the skirt. A seam line was not considered a separation. In some cases, it was extremely difficult to tell from the illustration whether the bodice was a separate piece. Occasionally, the description or caption that accompanied an illustration, or the coder's personal knowledge of costume history, gave reason to believe that the costume in question was composed of two separate pieces. However, if the connection between bodice and skirt had a fluid, dress-like appearance, "dress bodice" was indicated.

A "shirtwaist" or blouse appeared to be a separate piece from the skirt, and could be worn out or tucked in at the waist. It was usually made of fabric that contrasted with the rest of the costume. The "shirtwaist" or blouse was considered similar to a present day blouse.
"Coordinated jacket or top" was indicated for a bodice that appeared to be separate from the skirt, but was made of the same fabric and was trimmed or styled to match. A coordinated jacket or top may or may not have been worn over another bodice layer. This type of bodice was usually worn out at the waist (i.e., not tucked into the skirt).

A "non-coordinated jacket" appeared to be separate from the skirt and was worn over another bodice layer or layers. Consistent with the jacket style, this type of bodice was worn out at the waist. A non-coordinated jacket was made of fabric which contrasted with the skirt and was not trimmed or styled to match the other costume pieces. The non-coordinated jacket was considered similar to the modern day blazer.

A "jumper top" was attached to or flowed into a skirt and was worn over another bodice layer. Jumper tops differed from dress bodices in that they had plunging necklines and could not be worn without some sort of bodice layer underneath.

The response category "vest" was indicated for a bodice that was worn over another bodice layer and was generally short or waist-length and sleeveless. Vests also opened or buttoned at the front and had a rather deep or open neckline. Although vests were sometimes worn underneath a jacket so that the sleeveless characteristic could not be seen, as long as it had the other indications of being a vest it was coded as such. In short, the vest was considered similar to a modern man's suit vest or waistcoat.
A "tunic" referred to a bodice that extended to the hipline or beyond with no visible waistline. Tunic bodices were worn over a separate skirt.

Any bodice that was worn underneath another bodice layer (i.e., any second or third layer bodice), and did not appear to be a vest, was coded as an "under-blouse' or chemisette." An 'under-blouse" or chemisette may have been a full or partial garment (i.e., a fabric insert worn to fill in the upper chest and neckline area).

Fabric

3. matte 1 2 3 4 5 shiny
4. flat 1 2 3 4 5 3-dimensional
5. stiff 1 2 3 4 5 flowing
6. opaque 1 2 3 4 5 transparent

patterned:

7. geometric 1 2 3 4 5 organic
8. regular 1 2 3 4 5 irregular
9. high contrast 1 2 3 4 5 low contrast

Items 3 through 9 described various qualities of the fabrics used in the main structure of the bodice. Fabrics used as surface embellishment (e.g., decorative facings, strip or running trim, fabric bows, etc.) were not coded. Only fabrics used in the bodice proper were coded using these items; fabrics found in the sleeve and cuff, collar or lapel, or below the bodice waistline were not coded here. Separate items appeared later to indicate whether the fabrics of which
these bodice components were constructed were the same as or different from the bodice proper fabric or fabrics. Up to three fabrics were coded per bodice layer.

Items 3 through 6 described various qualities pertaining to the texture of the fabric. In responding to these items, it was particularly important for coders to attend only to how the fabric appeared as it was illustrated. Coders refrained from guessing at a fabric's characteristics based on the name of the fabric, if supplied, or on what type of fabric they imagined it might be. Item 3, "matte versus shiny," measured the luster of the fabric, or how much light appeared to reflect off the fabric surface. Item 4, "flat versus 3-dimensional," measured how texturally variegated the fabric surface appeared. Item 5, "stiff versus flowing," measured the fabric's drape, or how rigid the fabric appeared. Finally, item 6, "opaque versus transparent," measured the sheerness of the fabric. Although the same fabric appeared to be used in both the bodice and skirt sections of some garments, it sometimes appeared to be stiff on one section, but flowing in the other. The bodice and skirt fabrics were coded independently of one another--for all of the fabric items, but for this item especially--and if a fabric appeared one way in the bodice and another way in the skirt, it was coded accordingly. In other words, the same fabric appearing in both the bodice and skirt was not automatically coded the same way in the bodice and skirt sections of the instrument.
Items 7 through 9 described the patterns or designs in the fabric, if any were present. If no pattern was present, coders skipped these items. A pattern was considered to be a distinct design in the fabric, more than just an all-over texture lending visual interest. Item 7, "geometric versus organic," measured how abstract as opposed to natural the pattern looked. For example, a highly realistic floral pattern would appear more organic as compared to a plaid pattern, which would clearly be geometric. Item 8, "regular versus irregular," measured how "lined-up" the pattern appeared. Using the example above, an all-over floral pattern might be coded as more irregular as compared to a plaid pattern. Item 9, "high contrast versus low contrast," measured how much the pattern appeared to stand out from the background. A dainty floral pattern printed in light colors on a light background would be coded as having a lower contrast, whereas a bold black stripe on a white ground would be coded as having a high contrast.

patterned and/or solid*:

10. white 1 2 3 4 5 6 7 8 black (indicate two values if present, or indicate "9" if there are three or more values)

Item 10 measured the values (i.e., the lightness or darkness) of the colors used in the garment fabrics. As indicated by the asterisk, this item was accompanied by a Munsell gray scale which consisted of eight values ranging
from white to black. Each color value was successively assigned a scale value, 1 through 8, and coders held the scale up to each black and white photocopied fashion illustration to rate the value of the fabric color. Like the other fabric semantic differential scales, up to three fabrics in the bodice were coded using this scale. Each fabric coded had to compose some part of the bodice structure; fabrics used as surface embellishment were not coded. If a fabric had a pattern, those composed of two values had both coded using this scale. If the pattern was composed of three or more values, then "9" was indicated and no attempt was made to rate the color values. Therefore, for each bodice, a maximum of 18 values could be recorded.

**Design**

**Bodice.** The "bodice" sub-section of the bodice or upper region section consisted of items that described characteristics of the bodice proper, which generally excluded the neckline and collar, sleeves and cuffs, and any part of the bodice that extended below the waistline.

11. fitted 1 2 3 4 5 loose

Item 11 measured how snugly the bodice proper fit the figure. Coders indicated only one response.

12. bodice closure or opening:

(a) none visible
(b) center
(c) off-center
(d) surplice
(e) other
Item 12 described the position or style of the bodice's closing or opening. Coders indicated only one response category. Double-breasted closings on bodice layers were coded as "surplice." Although some bodice closings were partially centered and partially off-centered, if any part of the closing was off-center it was coded as such.

13. bodice structural embellishment:

(a) none  (g) shirring
(b) epaulettes (h) yoke
(c) gathers  (i) other
(d) pleats/tucks (j) bretelles
(e) pocket(s) (a & f) contrasting panels
(f) seams or darts

The "bodice structural embellishment" item described interest added by means of manipulation of the bodice fabric structure. Coders indicated as many response categories as applied. The response category "pocket(s)" referred to slash pockets, which were usually depicted by a welt, binding, or flap. The category "seams or darts" was indicated for any visible dart or seam, excluding side seams or seams created in the use of yokes; the category "yoke" indicated the presence of a seam in the chest area joining the yoke to the rest of the bodice. "Bretelles" referred to widths of fabric with one edge sewn into a seam that ran over each shoulder; the fabric was formed into a gathered or circular ruffle and created a "winged" effect. The "contrasting panels" category was indicated when a bodice structure appeared to be composed of two or more different fabrics, with one of the fabrics usually
concentrated toward the center of the bodice to form a central panel or strip. The use of contrasting fabrics, either in yokes or contrasting panels, obscured the seam lines by which the fabrics were joined together; in cases such as these, the category "seams or darts" was not indicated.

14/15. bodice surface embellishment:

(a) none                (h) ornament(s)
(b) bow(s)              (i) overlay
(c) button(s)           (j) patch pocket(s)
(d) continuous strip trim (a) pleated ruffle
(e) embroidery         (b) gathered ruffle
(f) facing/applique     (c) stitching
(g) fringe

The "bodice surface embellishment" item described interest added through the application of trimming to the surface of the bodice fabric structure. Coders indicated as many response categories as applied. "Continuous strip trim" referred to any narrow running trim that was used to either accent an edge or border (e.g., a front closing or opening, or around the armscye), or create a decorative pattern within the body of the bodice. "Facing/applique" was indicated for fabric sewn on top of the bodice fabric structure for decorative purposes. Similar to continuous strip trim, facing fabric could be in the form of a wide band used to trim borders or edges, or it could have a more free-form quality. "Embroidery" differed from "stitching" in that the former referred to 2-dimensional patterns stitched onto the bodice fabric, whereas the latter consisted of simple straight
topstitching, usually depicted by a series of dashed lines. An "ornament" referred to any type of 3-dimensional decoration or bauble. When a piece of fabric, usually of a sheer or open weave, was laid on top of the bodice structure as a form of decoration, the response category "overlay" was indicated.

Surface embellishment items like this one occurred regularly in several areas of the instrument, as will be shown. For the most part, response categories were defined identically for each of these items even though they pertained to different portions of the garment.

16. bodice line (rate overall line unless distinctly different ratings are most appropriate):
vertical 1 2 3 4 5 horizontal (3=diagonal)

Item 16 was eliminated from the final version of the instrument. Coders found that "line" was a difficult to impossible characteristic to code on the complex fashions of this time period; a variety of lines were often present in each garment.

17. bodice symmetry (side to side):
   symmetric 1 2 3 4 5 asymmetric

The "bodice symmetry" item measured how symmetric or visually balanced the bodice appeared from a full frontal perspective (i.e., how similar one side of the bodice appeared to be with the other side). Coders indicated only one response. All aspects of the bodice design, including both surface and structural embellishment, fabric patterns, closure
or opening styles, etc., were included in this evaluation. The collar, sleeve, and below waistline bodice portions, if present, were generally considered in coding bodice symmetry. Any type of additional neckline decoration (see item 30) which extended into the bodice, such as a jabot or bow, was also figured into bodice symmetry.

**Neckline and collar.** The "neckline and collar" subsection of the bodice or upper region section consisted of items that described features of the neckline and collar area of the bodice.

18. **neckline length**:  
   low 1 2 3 4 5 6 7 8 9 10 high

The "neckline length" item measured the location of the neckline at its lowest point in the case of a rolled or flat collar and a collarless neckline, or at its highest point in the case of a standing collar. Coders indicated only one response unless a collar "liner" (see item 22/23) was evident, in which case two responses were provided.

19. **neckline shape:**  
   (a) round  (e) cowl  
   (b) square  (f) other  
   (c) v-shape  (g) worn open, doesn't close  
   (d) sweetheart
The "neckline shape" item described the shape (1) at the top of the collar for standing collars, (2) where the collar joined the bodice for all other collars (i.e., rolled and flat collars), and (3) at the bodice neckline edge when no collar was present. "Worn open, doesn't close" was indicated when the bodice was worn open and did not close to form a definite neckline shape.

Coders indicated only one response category. If the neckline shape under consideration did not fit neatly into one of the existing response categories, "other" was indicated. Neckline shapes that appeared to be a combination of styles represented by the response categories (e.g., a neckline with a rounded v-shape) were coded as "other." The neckline shapes of collar liners were not coded.

20. basic collar type:

flat 1 2 3 rolled (d) standing (e) none

Item 20 measured how much roll there was in the collar, if any. Coders indicated one response. Flat collars were considered to have no roll and were assigned a value of one, collars with a partial roll were assigned a value of two, and fully rolled collars were assigned a value of three. The remaining response categories are self-explanatory. Collar liners were not coded using this item.
21. collar/lapel material:

(a) fabric, same as bodice
(b) fabric, different from bodice
(c) fur
(d) other

Item 21 described whether the collar or lapel was made of the same fabric as the bodice proper, of a contrasting fabric, of fur, or of some other material. Coders indicated as many responses as applied; sometimes the fabric in the collar or lapel matched one of the fabrics in the bodice, but not the other, in which case both "a" and "b" were indicated. Both "a" and "b" were also indicated if there were two fabrics in the collar or lapel, and only one of them matched the bodice fabric. As with the bodice fabric semantic differential scales (items 3 through 10), only fabric composing the basic structure of the garment components was considered; fabric used as a surface embellishment was not coded, nor was fabric used in collar liners.

22/23. collar style*:

(a) notched
(b) shawl
(c) sailor/middy
(d) cape
(e) stole
(f) Chinese/military
(g) puritan/bertha
(h) ruffle
(i) yoke
(j) rounded (ex., peter pan)

(a) flare
(b) cowl
(c) lapel
(d) scalloped
(e) fichu
(f) plain pointed collar
(g) standing collar
(h) other
(i) man's shirt collar
Collar Styles

notched

shawl

lapel

ruffle

scalloped

sailor/middy

cape

stole

Chinese/mandarin

puritan/bertha

yoke

cowl

rounded point

angular point

flare

fichu
The "collar style" item described the general style or salient structural features of the collar. Coders indicated as many response categories as applied. The asterisk denotes that this item was accompanied by a style guide, which illustrated most of the response categories listed.

"Chinese/military" was indicated for any standing collar that split or opened at the front. "Standing collar" was used to indicate all non-split standing collars, regardless of the structural manipulation used (i.e., pleats or tucks, shirring, etc.), if any, to embellish the collar. "Lapel" was indicated whenever a lapel was present, whether it appeared by itself or was part of a collar (e.g., a lapel that was part of a notched collar). "Lapel" was also indicated when revers (i.e., lapel-like, turned-back flaps on either side of a bodice opening) were present. "Scalloped" was indicated for any collar or lapel that had a scalloped edging.

A common feature that appeared at the collars or necklines of fashions from the earlier half of the studied time period was what I termed "liners." A liner consisted of an arrangement of fabric, either ruffled or smooth, that seemed to line or poke out from underneath the collar or neckline. Liner fabrics always appeared white in color, and seldom had any kind of surface embellishment. Liners were coded as "other" under the collar style item. Variations in liners (e.g., ruffled, standing, plain pointed, etc.) were coded using the response categories for collar style even
though they applied to the liner rather than the collar itself.

**collar/lapel width at widest part**:  
24. collar: narrow 1 2 3 4 5 wide  
25. lapel: narrow 1 2 3 4 5 wide  

Items 24 and 25 measure the width of the collar and lapel, respectively, at its widest point out from the neckline. Coders indicated one response only for each item. Collar liners were not coded using this item.

**collar/lapel symmetry (side to side)**:  
26. collar: symmetric 1 2 3 4 5 asymmetric  
27. lapel: symmetric 1 2 3 4 5 asymmetric  

Items 26 and 27 measured how symmetric or balanced the collar and lapel appeared to be, respectively, from a full frontal view (i.e., how similar one side of the collar or lapel appeared to be with the other side of the collar or lapel, respectively). Coders indicated one response for each item. Like the bodice symmetry item, all aspects of the collar or lapel design—including surface embellishment (see item 28/29) and collar liners, if present—were taken into consideration in evaluating collar and lapel symmetry.

**28/29. collar, lapel, neckline surface embellishment**:  
(a) none  
(b) bow(s)  
(c) button(s)  
(d) continuous strip trim  
(e) embroidery  
(f) facing/applique  
(g) fringe  
(h) ornament(s)  
(i) overlay  
(j) pleated ruffle  
(a) gathered ruffle  
(b) stitching  
(c) other
The "collar, lapel, neckline surface embellishment" item described trimming applied to the structure of the collar or lapel, or the neckline edge on a collarless bodice. Coders indicated as many response categories as applied. On bodices that were worn open and did not have collars or lapels, trim that edged the bodice opening and wrapped around the neck was coded under neckline surface embellishment as well as bodice surface embellishment.

Only trimming that appeared on the collar itself was coded under this item. Surface embellishment on collar liners was not coded. Additional decoration that appeared at the throat was coded under the following item:

30. additional neckline decoration:

(a) none  
(b) bow, bow tie  
(c) jabot/cravat  
(d) ornament or pin  
(e) tie, loose  
(f) tie, man's style tie knot  
(g) other

The "additional neckline decoration" item described added surface embellishment around the throat area which appeared to be more of an accessory rather than a permanently attached trim. Coders indicated as many response categories as applied, though most often one category was adequate. The "tie, loose" category referred to a loosely tied or knotted strip of fabric, whereas the "tie, man's style tie knot" referred to a four-in-hand necktie.
When a bodice was worn open so that the neckline did not close at the front, coders skipped this item. Added surface embellishment, such as embroidery or lace, that occurred on the dangling portion of a bow, tie, jabot, or cravat was not coded.

**Central torso area not covered by outer layer**:  
(1=closed, 5=wide)

- 31. **Neckline**: 1 2 3 4 5
- 32. **Upper chest**: 1 2 3 4 5
- 33. **Breast area**: 1 2 3 4 5
- 34. **Midriff area**: 1 2 3 4 5
- 35. **Waistline**: 1 2 3 4 5
- 36. **Hip area**: 1 2 3 4 5

Items 31 through 36 measured the width of the area left exposed by the bodice layer at different locations down the center front of the torso, usually located along the bodice opening or closing. Each item corresponded to a set location on the figure; the locations did not fluctuate with style variations in the bodices. For each of these items, coders indicated one response only.

**Sleeve and cuff**. The "sleeve and cuff" sub-section of the bodice or upper region section consisted of items that described characteristics of the armscye, sleeve, and cuff or sleeve hem portion of the bodice.
37. sleeve material:

(a) fabric, same as bodice
(b) fabric, different from bodice
(c) fur
(d) other

Item 37 described whether the sleeve was made of the same fabric as the bodice proper, of a contrasting fabric, of fur, or of some other material. Coders indicated as many responses as applied. The same philosophy used in coding collar and/or lapel material was used in coding sleeve material (see item 21).

38. armscye style:

(a) set-in
(b) drop shoulder
(c) dolman
(d) raglan
(e) kimono
(f) other

The "armscye style" item described the style in which the sleeves were joined to the armholes of the bodice. Coders indicated only one response category. This item was accompanied by a style guide, which illustrated each of the styles represented by the various response categories.
39. sleeve length (to end of cuff)*:

(a) "cut in"
(b) sleeveless
(c) cap
(d) upper-upper arm
(e) lower-upper arm
(f) elbow
(g) three-quarter
(h) wrist
(i) below wrist

The "sleeve length" item measured the length of the
sleeve at its longest point, including the cuff or any cuff or
sleeve hem embellishment in the length. In the case of a
liner at the cuff or sleeve hem (see item 54), the sleeve
length measurement was taken from the tip of the liner.
Usually coders provided one response for this item. However,
coders responded twice in the case of a "sleeve with
undersleeve" sleeve style; the first response reflected the
outer sleeve's length and the second response reflected the
length of the undersleeve.

sleeve silhouette (including cuff)*:

rate width, narrow=1 and wide=5

40. cap: 1 2 3 4 5
41. upper arm: 1 2 3 4 5
42. elbow: 1 2 3 4 5
43. forearm: 1 2 3 4 5
44. wrist: 1 2 3 4 5
Items 40 through 44 measured the width of the sleeve, or how far out from the arm the sleeve reached at its widest point, at different locations down the arm. Coders provided one response for each item.

45/46. sleeve style*:

(a) basic fitted  
(b) coat  
(c) bishop  
(d) empire puff  
(e) elbow puff  
(f) mutton leg  
(g) pagoda  
(h) sleeve with undersleeve  
(i) lantern  
(j) cap over sleeve  
(a) sleeve with wing  
(b) other  
(c) puff

The "sleeve style" item identified the general style or styles found in the sleeve. Although coders usually indicated one response only, it was possible to indicate as many response categories as applied; sometimes more than one of the styles listed occurred in the same sleeve (e.g., "mutton leg" and "cap over sleeve" occurred together in one sleeve style).

The first two categories, "basic fitted" and "coat," both described straight sleeves, though the former fit the arm more snugly than the latter. The "mutton leg" category was indicated for all variations of a sleeve style that had added fullness at the armscye and then tapered toward the sleeve hem. The "puff" category characterized sleeves that had added fullness, usually through fabric gathers, at both the armscye and the cuff or sleeve hem. The various styles represented by the response categories are further illustrated by the style guide for this item.
Sleeve Styles

- Basic fitted coat
- Bishop sleeve
- Pagoda sleeve
- Empire puff
- Elbow puff
- Mutton leg
- Cap over sleeve
- Sleeve with undersleeve
- Lantern sleeve
- Sleeve with wing
Sleeves of any length other than long (i.e., short, elbow length, and three-quarter length) were coded using the response categories provided as much as possible (as opposed to recording them as "other" styles). For example, a plain, straight short sleeve was coded as "basic fitted" or "coat" depending on how tightly it fit the arm. While the response categories tended to describe full length sleeve styles, differentiating styles based on length was avoided in an effort not to confuse the two issues of style and length; sleeve length was coded using a separate item.

47. sleeve structural embellishment:

(a) none
(b) gathers
(c) pleats/tucks
(d) shirring
(e) other
(f) contrasting panels

Manipulation of the sleeve fabric structure was described by the "sleeve structural embellishment" item. Coders indicated as many response categories as applied. Inside seams were not considered embellishment and therefore were not coded under this item. However, other additional seams or darts were coded as "other." The "contrasting panels" category referred to any contrasting fabric that was incorporated into the sleeve structure for the purpose of decoration. Any structural embellishment used in the cap component of a "cap over sleeve" style was also coded using this item.
48. arrangement of sleeve structural embellishment:

vertical 1 2 3 4 5 horizontal

Item 48 was eliminated from the final version of the instrument. Like item number 16 which attempted to measure line, a variety of lines could usually be discerned in many of the sleeves surveyed.

49/50. sleeve surface embellishment:

(a) none (g) fringe
(b) bow(s) (h) ornament(s)
(c) button(s) (i) overlay
(d) continuous (j) pleated ruffle
   strip trim (a) gathered ruffle
(e) embroidery (b) stitching
(f) facing/applique (c) other

The "sleeve surface embellishment" item described trimming applied to the fabric structure of the sleeves. Coders indicated as many response categories as applied. Trimming located near the sleeve hem was generally coded under sleeve surface embellishment rather than sleeve hem surface embellishment if it moved up into the sleeve in a sort of vertical alignment (i.e., along the length of the sleeve).

51. presence of cuff:

(a) yes
(b) no

Item 51 identified whether or not the sleeve had a separate cuff. Any sewn-on, structural attachment (i.e., not a surface trim applied around the sleeve hem for decorative purposes) at the end of the sleeve was considered to be a cuff. Coders indicated one response.
52. cuff material:

(a) fabric, same as sleeve
(b) fabric, different from sleeve
(c) fur
(d) other

Item 52 described whether the cuff was made of the same fabric as the sleeve to which it was attached, of a contrasting fabric, of fur, or of some other material. Coders indicated as many responses as applied. The same philosophy used in coding collar or lapel material (see item 21) and sleeve material was used in coding cuff material.

53. cuff style:

(a) not turned back
(b) turned back

Item 53 described whether the cuff, if present, was straight or turned back (i.e., folded back over on itself or the sleeve). Coders indicated one response.

54. other cuff or sleeve hem structural interest:

(a) split
(b) band/barrel
(c) lapped
(d) french
(e) ruffled or pleated

(f) scalloped or jagged
(g) flared
(h) other shaped
(i) other

Item 54 described the structural style of the cuff or sleeve hem. Coders indicated as many response categories as applied. As mentioned, a cuff was defined as a separate piece sewn onto the sleeve. If a separate piece could not be discerned, coders responded to this item in reference to the sleeve hem. For the "sleeve with undersleeve" style, the cuff
or sleeve hem structural interest on both the under-sleeve and over-sleeve were combined and coded as one.

Similar to collar style, a prevalent feature at the cuff or sleeve hem of earlier costumes was the "liner." Like collar liners, cuff or sleeve hem liners were white in color and usually straight or ruffled in style; occasionally they had additional variations. Liners were coded as "other," and the individual variations were coded using the existing response categories (e.g., ruffled or pleated, band/barrel).

55/56. cuff or sleeve hem surface embellishment:

(a) none  (g) fringe
(b) bow(s)  (h) ornament(s)
(c) button(s)  (i) overlay
(d) continuous  (j) pleated ruffle
    strip trim  (a) gathered ruffle
(e) embroidery  (b) stitching
(f) facing/applique  (c) other

Item 55/56 described trimming applied to the cuff or sleeve hem. Coders indicated as many response categories as applied. Surface embellishment concentrated toward the sleeve hem on cuffless sleeves was coded under this item if the trim circled the arm or wrist in a way that emphasized the opening or end of the sleeve. For the "sleeve with undersleeve" style, cuff or sleeve hem surface embellishment for both the under-sleeve and over-sleeve were combined and coded as one. Surface embellishment on cuff or sleeve hem liners was not coded.

Waistline and below. The "waistline and below" subsection of the bodice or upper region section consisted of
items that described features of the waistline in addition to any portion of the bodice that extended below the waistline. Items pertaining to waistline features were placed in the bodice or upper region section of the instrument because waistlines tended to be covered by the bodice portions of the costumes. However, whether a waistline appeared to be part of the skirt or part of the bodice, it was coded using the same items.

waistline location*:
1=high above 2=above 3=natural 4=below 5=low below

57. front: 1 2 3 4 5
58. back: 1 2 3 4 5
59. left side: 1 2 3 4 5
60. right side: 1 2 3 4 5

Items 57 through 60 measured the location of the garment waistline at four different points around the figure. Coders indicated one response only for each of these items. The waistline of the garment was identified by an indentation of the garment in the area of the waist, or, if no indentation was present, a seam line or other form of embellishment which lent visual emphasis to the waistline area. In cases where neither of these two indicators was present, coders indicated "9" to indicate "not applicable." Sometimes the waistline was
not defined all the way around the garment (i.e., the waistline indented at each side and at the back, but hung loose and unfitted at the front). Because of this, and the possibility that waistline location might differ among some or all of the four points around the garment, the waistline location was measured separately at four different positions.

61. waistline fit: fitted 1 2 3 4 5 loose

The "waistline fit" item measured how snugly the waistline of the garment fit the figure. If no waistline was indicated, this item was left uncoded. Coders indicated one response only.

62. waistline surface embellishment:

(a) none
(b) buckle belt
(c) tie belt/sash
(d) fabric band/strap
(e) button(s)
(f) bow(s)
(g) ornament(s)
(h) other

The "waistline surface embellishment" item described decoration added to the waistline that was not part of the garment fabric structure. Coders indicated as many categories as applied. Added surface embellishment that occurred on tie belt or sash ends was not coded. If no waistline was indicated on the garment, then coders skipped this item.
63/64. total length of bodice/jacket, etc. in question*: 

(a) above waist
(b) natural waist area
(c) below waist
(d) hip area
(e) upper thigh
(f) above knee
(g) knee
(h) below knee
(i) calf
(j) ankle
(a) below ankle

The "bodice length" item included the waistline, even if the waistline was clearly attached to the skirt (e.g., as in the case of a blouse worn tucked into a skirt at the waistline). Bodices that extended well into the skirt at the front, usually coming to a deep point, were included in the bodice length. Coders indicated one response only.

65. presence of peplum:

(a) yes
(b) no
(c) partial

Item 65 described whether the bodice had a peplum. Coders indicated one response. A peplum was defined as a deep flounce attached to the bottom edge of the bodice. If a peplum did not continue uninterrupted around the figure, coders indicated "c" for "partial" peplum.
66. below waistline material:

   (a) fabric, same as bodice
   (b) fabric, different from bodice
   (c) fur
   (d) other

Item 66 described whether the part of the bodice which extended below the garment waistline was made of the same fabric as the bodice proper, of a contrasting fabric, of fur, or of some other material. Coders indicated as many responses as applied. The same philosophy used in coding collar or lapel material, sleeve material, and cuff material was used in coding below-the-waistline bodice material.

67. below waistline fit: fitted 1 2 3 4 5 loose

The below waistline fit item measured how snugly the part of the bodice which extended below the garment waistline was fitted to the figure. Coders indicated one response only.

68. below waistline structural embellishment:

   (a) none
   (b) seams/darts
   (c) pleats/gathers
   (d) gathers
   (e) flounce
   (f) split panels
   (g) pocket(s)
   (h) other
   (i) contrasting panels

The "below waistline structural embellishment" item described interest added to the part of the bodice that extended below the garment waistline through manipulation of the fabric structure. Coders indicated as many response categories as applied. The "flounce" category, for this item, referred to a circular ruffle. "Split panels" described deeply cut splits in this portion of the bodice that spread
apart over the hips and resulted in hanging tabs or panels. The "pocket(s)" category referred to slash pockets, like those described under the bodice structural embellishment item (see item 13).

A limitation of this instrument was that it did not account for the shape of the bodice hem, especially when bodices were separate pieces and were worn "out" or not tucked into the skirt (e.g., jackets); bodice hem shape was not coded using this item.

69/70. **below waistline surface embellishment:**

| (a) none                  | (h) ornament(s)                  |
| (b) bow(s)               | (i) overlay                      |
| (c) button(s)            | (j) patch pocket(s)              |
| (d) continuous strip trim| (a) pleated ruffle               |
| (e) embroidery           | (b) gathered ruffle              |
| (f) facing/applique      | (c) stitching                    |
| (g) fringe               | (d) other                        |

The "below waistline surface embellishment" item described trimming applied to the part of the bodice structure that extended below the waistline. Coders indicated as many response categories as applied.

**Overall bodice (one evaluation for all layers combined).**

Coders responded to the last three items of the bodice or upper region section based on all the bodice components combined (i.e., bodice proper, neckline and collar, sleeve and cuff, etc.) in addition to all the layers combined. Therefore, for each fashion illustration, regardless of how
many layers existed in the bodice or upper region, coders indicated only one response.

71. angular 1 2 3 4 5 rounded

Item 71 described how angled or sharp-cornered versus how curvilinear the "lines" of the bodice were. Man-tailored garments tended to be more angular than bodices with puffs and gathers. Because the female figure itself is basically rounded, even those garments with sharp angles usually possessed some degree of roundedness.

72. determinate 1 2 3 4 5 indeterminate

Item 72 described how distinct (determinate) versus how indistinct (indeterminate) the boundaries of the bodice were. Characteristics that might render a garment more indeterminate included many soft folds or ruffled surfaces, irregular prints of many shades, or very 3-dimensional or flowing fabrics, all of which tended to make the silhouette or surface of the garment less distinct. Characteristics that might render a garment more determinate included tailored styles with angular lines and smooth surfaces, solid fabrics—especially of very light or dark shades, and crisp, stiff fabrics. A lot of "frills" or 3-dimensional ornamentation contributed to indeterminacy as well; applied ruffles and bows created undulating surfaces which rendered garment boundaries less distinct.
73. simple 1 2 3 4 5 complex

The last of these items, the "simple versus complex" item described how plain or uncomplicated versus how intricate or elaborate the bodice appeared. Characteristics such as many fabrics or patterned fabrics, many forms of surface and structural embellishment, and multi-layers all contributed to complexity. Simple versus complex was somewhat similar in concept to determinate versus indeterminate. While complexity could make a garment more indeterminate, it was possible to have determinate forms of embellishment. Also, a plainly styled garment made of soft, flowing fabric with an airy, all-over print might be considered quite indeterminate. Therefore, these two variables were measured separately.

Skirt

74. layer number: 1 2 3 (code only three)

The first item in the skirt section of the instrument identified the layer of the skirt that was being coded. Just like the same item used in the bodice or upper region section, the outermost layer was coded "1," the next layer inward was coded "2," and the third layer inward after that was coded "3." No more than three layers were coded; more than three layers rarely occurred. Coders responded to the following items of this section as they pertained only to the skirt layer identified by this item.
Fabric

75. matte 1 2 3 4 5 shiny
76. flat 1 2 3 4 5 3-dimensional
77. stiff 1 2 3 4 5 flowing
78. opaque 1 2 3 4 5 transparent

patterned:

79. geometric 1 2 3 4 5 organic
80. regular 1 2 3 4 5 irregular
81. high contrast 1 2 3 4 5 low contrast

Items 75 through 81 described various qualities of the fabrics used in the skirt structure. As with the bodice or upper region, fabrics used as surface embellishment on the skirt were not coded. Up to three fabrics were coded per skirt layer.

These items were identical to the fabric semantic differential scales used in the bodice section and described the same qualities as they pertained to the fabrics found in the skirt. For an explanation of specific items, see descriptions provided in the bodice section (see items 3 through 9).

patterned and/or solid*:

82. white 1 2 3 4 5 6 7 8 black (indicate two values if present, or indicate "9" if there are three or more values)

Item 82 measured the shade or shades of the fabric color or colors used in the skirt. Coders responded to this item in
the same manner that they responded to the same item in the bodice section (see item 10); a maximum of two responses could be provided for each fabric. If a single fabric had more than three shades or values in it, the category "9" was indicated. Because a maximum of three fabrics were coded per skirt layer, a maximum of 18 values could be coded per illustration. Coders used the same Munsell gray scale used in coding the bodice fabric shades when coding the skirt fabric shades.

**Design**

83/84. length of skirt layer at highest point:

(a) hipline and above
(b) upper thigh
(c) above knee
(d) knee
(e) upper calf
(f) lower calf
(g) ankle
(h) just above floor
(i) floor length
(j) short train
(a) medium train
(b) long train

Item 83/84 measured the length of the skirt at its highest point, or where the hem was furthest from the floor. Coders indicated one response only. Open splits in the skirt (as opposed to lapped splits) were considered to be modifications of the hem and the top of the split was considered in responding to this item. However, coders did
not consider splits in the skirt that reached the bodice to be modifications to the hem; these were identified as skirt openings and were coded under item 103.

85/86. length of skirt layer at lowest point:

(a) hipline and above  
(b) upper thigh  
(c) above knee  
(d) knee  
(e) upper calf  
(f) lower calf  
(g) ankle  
(h) just above floor  
(i) floor length  
(j) short train  
(a) medium train  
(b) long train

Item 85/86 measured the length of the skirt at its lowest point, or the point at which the hem was closest to the floor (or longest on the floor, in the case of trains). Coders provided one response for this item. An important exception was made in coding length of skirt at its lowest point--coders referred to the back of the skirt for single layer skirts and to the undermost layer of multi-layered skirts. This was done to capture the presence of skirt trains, as the illustrations consistently showed trains visible from the front on single layer skirts and on the undermost layer of multi-layered skirts (i.e., trains were drawn poking out from the back, trailing along to the side, or swirling around to the front of these skirts). Trains on the outer layers of multi-layered skirts were not consistently in view, and so for these skirts only the front view was considered in coding skirt length at its lowest point.
width of skirt layer*:

87. waist: 1 2 3 4 5 6 7 8 9 10
88. upper hip: 1 2 3 4 5 6 7 8 9 10
89. lower hip: 1 2 3 4 5 6 7 8 9 10
90. thigh: 1 2 3 4 5 6 7 8 9 10
91. knee: 1 2 3 4 5 6 7 8 9 10
92. calf: 1 2 3 4 5 6 7 8 9 10
93. ankle: 1 2 3 4 5 6 7 8 9 10

Items 87 through 93 measured the width of the skirt—or how far out from the figure's side the skirt reached—at different points down the waist, hip, and leg of the figure. Any part of the bodice that extended below the figure's natural waistline and covered the skirt was included in the measurement; coding began at the figure's waistline. In coding skirt width on multi-layered skirts, the first or outermost layer was referred to until the second layer first appeared along the side of the figure. Coding continued down the length of the second layer until the third layer, if present, first appeared. Coders provided one response for each item.

94. hem of layer (as cut or draped, excluding ripples from fullness):
   (a) straight
   (b) rounded
   (c) pointed
   (d) scalloped
   (e) other
The "hem of layer" item described the shape of the skirt hem. Coders indicated one category only. Skirt hems that appeared to be a combination of styles represented by the response categories were coded as "other."

Ideally, the coding of skirt hem shape should have been consistent with the coding of the skirt length at the highest and lowest points. If the highest and lowest points of the skirt were coded as being identical, then the skirt hem shape should have been straight; if the highest and lowest points of the skirt were different, then the skirt hem shape was rounded, pointed, scalloped, or some other shape. Occasionally, due to inter-rater differences, ratings for a given skirt length at its highest and lowest points were slightly different (by half a point) even though the skirt hem shape was coded "straight."

Skirts that had trains were coded "rounded" unless the train was distinctly different in shape, such as squared or pointed. Occasionally, all that could be seen of a skirt hem shape was that it was diagonal; in this case, "other" was indicated and "diagonal" was listed on the "other" list. Open splits in skirts, which appeared as splayed vertical slits in the skirt hem, were coded as "other." Skirt openings were ignored when coding skirt hem shape; hem shape was coded as if there were no "interruption" caused by the opening.
95. presence of border:

(a) yes
(b) no
(c) partial

The "presence of border" item established whether the skirt had a full border, a partial border, or no border at all. Coders indicated only one response category. For a discussion of how border embellishment was distinguished from skirt embellishment, see the description for item 98/99, "border embellishment."

A partial border had a distinct "visual pause" at some point in the border. Not to be confused by a border that consisted of repeated separate pieces of embellishment (e.g., a row of bows placed along the hem of a skirt, with a few inches between each bow), a partial border was characterized by an interruption in the rhythm of the elements that composed the border. Partial borders could occupy either the majority of a skirt hem, or only a small area.

96. border structural embellishment:

(a) none or plain
(b) straight ruffle
(c) circular ruffle
(d) pleats or pleated ruffle
(e) self band
(f) other

Item 96 was eliminated from the final version of the instrument. Due to the location of the embellishment (i.e., embellishment was sometimes placed along the edge of the skirt layer) it was difficult to impossible to differentiate between
embellishment that was structural or applied. Ultimately, no attempt was made to differentiate between the two (see item 98/99).

97. border structural embellishment material:
(a) fabric, same as skirt layer
(b) fabric, different from skirt layer
(c) fur
(d) other

Item 97 was eliminated from the final version of the instrument. See the explanation for the elimination of item 86.

98/99. border embellishment:
(a) none
(b) bow(s)
(c) button(s)
(d) continuous strip trim
(e) embroidery
(f) facing/applique
(g) fringe
(h) ornament(s)
(i) overly
(j) pleated ruffle
(a) gathered ruffle
(b) stitching
(c) other
(d) circular ruffle
(e) tucks
(f) self band

The "border embellishment" item described any decoration that composed the border of the skirt. Coders indicated as many response categories as applied. Because of the difficulty in distinguishing structural embellishment from surface embellishment for skirt borders, no distinction was made between the two (hence the elimination of items 96 and 97 and the subsequent modification of this item); all forms of border embellishment were coded using this one item. In cases where it was difficult to distinguish skirt embellishment from border embellishment, the rule was that any decoration
concentrated toward the bottom edge of the skirt (which I defined as being below the knee) and arranged to create a visual emphasis along the hem was coded as border embellishment. Decoration located along the vertical edge of a skirt opening was coded as skirt embellishment rather than border embellishment.

In cases where a skirt possessed a tiered structural embellishment, certain guidelines were set regarding the coding of borders. Because each tier was not treated as an individual layer, only decoration composing a border on the bottom-most tier was coded as border embellishment; borders on other tiers were coded as skirt surface embellishment. In general, any decoration on the bottom tier of a tiered skirt was considered border embellishment.

For the most part, the response categories for border embellishment were defined the same as for all the other surface embellishment items, with some categories added to represent common structural forms of decoration (e.g., "tucks" and "self-band"). The "self-band" category differed from "facing/applique" in that the former described a fairly wide band of contrasting fabric composing the hem of the skirt, whereas the latter referred to a somewhat narrower applied decoration.
100. skirt layer structural embellishment:

(a) none  
(b) draped  
(c) flounce  
(d) gathers  
(e) gores/seams  
(f) pleats/tucks  
(g) shirring  
(h) tiers  
(i) yoke at waist  
(j) other  

(a & e) contrasting panels

The "skirt layer structural embellishment" item described interest added through manipulation of the skirt fabric structure. Coders indicated as many response categories as applied. The "flounce" category referred to circular ruffles incorporated into the skirt structure. The "draped" category referred to skirt fabric that was arranged in swag-like folds. Usually drapery was achieved through tucks or gathers at the waist; however, when "draped" was indicated, the tucks or gathers that created the drapery were not coded unless part of the tucked or gathered fabric hung straight (i.e., was not included in the swag) or was a visually significant feature on its own.

The "yoke at waist" category described a full or partial seam line running across the hipline of the skirt. Sometimes added fullness in the form of gathers or pleats was introduced at this seam to create a silhouette that was fitted at the waist and hips, but flared outward toward the hem.

The "tiers" category referred to an arrangement of rows of skirt fabric stacked on top of one another. Each tier flared out toward the bottom, and the bottom of one row or tier just covered the top of the one below it. Sometimes rows
of surface embellishment in the form of ruffles or strips of fabric created a tiered effect; however, in tiering through structural manipulation, the actual fabric structure of the skirt was arranged in tiers. The difference between tiering through structural manipulation and tiering through application of surface trims may have been subtle from a visual standpoint, but for coding purposes the distinction was an important one.

As mentioned, "contrasting panels" referred to contrasting fabric or fabrics, usually in the form of a panel or strip, incorporated into the structure of a garment. In addition, contrasting panels could take the form of portions of the skirt made visually distinct from one another through surface or structural manipulation. The appearance of this form of contrasting panel tended to occur during the 1870s when, for example, the center front of a skirt might be smooth, yet the portion of the skirt on either side of this smooth area might be covered in rows of ruffles or composed of tiers. In such cases, "contrasting panels" would be indicated, even if a second fabric was not used.

101/102. skirt layer surface embellishment:

(a) none  (g) fringe
(b) bow(s)  (h) ornament(s)
(c) button(s)  (i) overlay
(d) continuous strip trim  (j) pleated ruffle
   (a) gathered ruffle
(e) embroidery  (b) stitching
(f) facing/applique  (c) other
The "skirt layer surface embellishment" item described trimming applied to the surface of the skirt fabric structure. Coders indicated as many response categories as applied.

103. skirt layer closure or opening:

(a) none visible
(b) center front
(c) off-center
(d) side (hip)
(e) other
(f) "surplice"

The "skirt layer closure or opening" item determined the presence and position of a closing or opening in the front half of the skirt. Coders indicated only one response category. Skirt closings or openings were defined as a split in the skirt fabric that extended from the hem of the skirt to the point at which the skirt joined the bodice. A "surplice" skirt closing or opening was like a surplice bodice closing or opening, only inverted (i.e., to two fabric pieces overlapped toward the waist and split open toward the hem).

104. distribution of fullness in skirt layer (check all that apply, but only indicate areas where fullness is distinctly in evidence):

(a) none
(b) even across front
(c) at regular intervals
(d) at irregular intervals
(e) at center front
(f) at either side of center
(g) at hips (sides)
(h) at back
(i) other
Item 104 was eliminated from the final version of the instrument. Distribution of fullness in the skirt was found to be an indistinct, complex feature that was very difficult to code in many cases. Due to the large number of items in the instrument, including the skirt silhouette measures and the skirt structural embellishment items, it was decided that this item was expendable.

105. line of skirt layer:
vertical 1 2 3 4 5 horizontal (3=diagonal)

Item 105 was eliminated from the final version of the instrument for the same reason as item 16 (i.e., bodice line).

symmetry of skirt layer:

106. side to side: symmetric 1 2 3 4 5 asymmetric

The skirt symmetry item described how symmetric or visually balanced the skirt appeared to be (i.e., how similar one side of the skirt was to the other side). Coders indicated one response. All elements of the skirt design were considered together in responding to this item--structural embellishment, surface embellishment, fabrics used, hem shape, skirt closing or opening, border, etc. In addition, if a costume had some sort of waistline embellishment which extended into the body of the skirt (e.g., the ties of a sash), coders took this embellishment into consideration when coding skirt symmetry.
symmetry of skirt layer:
107. front to side/back: (a) symmetric (b) asymmetric

Item 107 was eliminated from the final version of the instrument. Because the present study was primarily concerned with describing costumes from the frontal view and illustrations were selected accordingly, this feature was often impossible to code. In addition, because the female figure is not symmetrical from front to side or back, all observations were asymmetric in character.

**Overall skirt (one evaluation for all layers combined).**

108. angular 1 2 3 4 5 rounded
109. determinate 1 2 3 4 5 indeterminate
110. simple 1 2 3 4 5 complex

Items 108 through 110 were identical to the last three items in the bodice section, and were likewise given one response for all the layers combined. These items described the same characteristics as they did in the bodice section, only as they pertained to the skirt portion of the garment. See the bodice section (items 71 through 73) for explanations of individual items.
APPENDIX C

GRAPHS OF SIGNIFICANT FINDINGS
Figure 19. Character of Bodice Layer (Item 1): Number of Categories and Number of Observations by Year.
Figure 20. Bodice Closure or Opening (Item 12): Number of Categories and Number of Observations by Year
Figure 21. Bodice Structural Embellishment (Item 13): Number of Categories and Number of Observations by Year
Figure 22. Bodice Surface Embellishment (Item 14-15): Number of Categories and Number of Observations by Year
Figure 23. Neckline Shape (Item 19): Number of Categories and Number of Observations by Year
Figure 24. Collar Style (Item 22/23): Number of Categories and Number of Observations by Year
Figure 25. Collar, Lapel, Neckline Surface Embellishment (Item 28/29): Number of Categories and Number of Observations by Year
Figure 26. Additional Neckline Decoration (Item 30): Number of Categories and Number of Observations by Year
Figure 27. Armscye Style (Item 38): Number of Categories and Number of Observations by Year
Figure 28. Sleeve Style (Item 45/46): Number of Categories and Number of Observations by Year
Figure 29. Sleeve Structural Embellishment (Item 47): Number of Categories and Number of Observations by Year
Figure 30. Sleeve Surface Embellishment (Item 49/50): Number of Categories and Number of Observations by Year
The chart shows the number of categories and observations from 1873 to 1912. The number of categories remains relatively stable at 18 from 1873 to 1900, with a slight increase to 19 in 1903. The number of observations shows a trend of increasing from 5 to 9 in 1873, then fluctuates between 2 and 7 until 1900, and then increases sharply to 22 in 1909 and 21 in 1912.
Figure 31. Other Cuff or Sleeve Hem Structural Interest (Item 54): Number of Categories and Number of Observations by Year
The graph shows the number of categories and observations over the years from 1873 to 1912. The number of categories and observations varies significantly over time, with peaks and troughs at different dates.
Figure 32. Cuff or Sleeve Hem Surface Embellishment (Item 55/56): Number of Categories and Number of Observations by Year
Figure 33. Waistline Embellishment (Item 62): Number of Categories and Number of Observations by Year
Figure 34. Below Waistline Structural Embellishment (Item 68): Number of Categories and Number of Observations by Year
Figure 35. Below Waistline Surface Embellishment (Item 69/70): Number of Categories and Number of Observations by Year
The diagram shows a line graph depicting the number of categories and observations over time from 1873 to 1912. The y-axis represents the number of categories and observations, with values ranging from 0 to 25. The x-axis represents the years from 1873 to 1912. The graph indicates fluctuations in the number of categories and observations, with peaks and troughs at different points during the specified period.
Figure 36. Skirt Hem Shape (Item 94): Number of Categories and Number of Observations by Year
Figure 37. Border Embellishment (Item 98/99): Number of Categories and Number of Observations by Year
Figure 38. Skirt Structural Embellishment (Item 100): Number of Categories and Number of Observations by Year
Figure 39. Skirt Surface Embellishment (Item 101/102): Number of Categories and Number of Observations by Year
Figure 40. Skirt Closure or Opening (Item 103): Number of Categories and Number of Observations by Year
Figure 41. Neckline Length (Item 18): Standard Deviation and Number of Observations by Year
Figure 42. Collar Width (Item 24): Standard Deviation and Number of Observations by Year
Figure 43. Central Torso Area Exposed, Neckline (Item 31): Standard Deviation and Number of Observations by Year
Figure 44. Central Torso Area Exposed, Upper Chest (Item 32): Standard Deviation and Number of Observations by Year
Figure 45. Central Torso Area Exposed, Breast Area (Item 33): Standard Deviation and Number of Observations by Year
Figure 46. Central Torso Area Exposed, Midriff Area (Item 34): Standard Deviation and Number of Observations by Year
Figure 47. Central Torso Area Exposed, Waistline (Item 35): Standard Deviation and Number of Observations by Year
Figure 48. Central Torso Area Exposed, Hip Area (Item 36): Standard Deviation and Number of Observations by Year
Figure 49. Sleeve Length (Item 39): Standard Deviation and Number of Observations by Year
Standard Deviation, # of Observations

Year

1873 1876 1879 1882 1885 1888 1891 1894 1897 1900 1903 1906 1909 1912

Standard Deviation,
Figure 50. Sleeve Silhouette, Cap (Item 40): Standard Deviation and Number of Observations by Year
Figure 51. Sleeve Silhouette, Elbow (Item 42): Standard Deviation and Number of Observations by Year
Figure 52. Waistline Location, Front (Item 57): Standard Deviation and Number of Observations by Year
Figure 53. Skirt Length at Highest Point (Item 83/84): Standard Deviation and Number of Observations by Year
Figure 54. Skirt Length at Lowest Point (Item 85/86): Standard Deviation and Number of Observations by Year
Figure 55. Skirt Width, Thigh (Item 90): Standard Deviation by Year
Figure 56. Bodice Fabric Characteristics, Matte - Shiny (Item 3): Standard Deviation and Number of Observations by Year
Figure 57. Bodice Fabric Characteristics, Flat - 3 dimensional (Item 4): Standard Deviation and Number of Observations by Year
Figure 58. Bodice Fabric Characteristics, Stiff - Flowing (Item 5): Standard Deviation and Number of Observations by Year
Standard Deviation, # of Observations

Year:
- Standard Deviation
- # of Observations

1873, 1876, 1879, 1882, 1885, 1888, 1891, 1894, 1897, 1900, 1903, 1906, 1909, 1912
Figure 59. Bodice Fabric Characteristics, Opaque - Transparent (Item 6): Standard Deviation and Number of Observations by Year
Figure 60. Bodice Fabric Characteristics, Patterned Fabric, Geometric - Organic (Item 7): Standard Deviation and Number of Observations by Year
Figure 61. Bodice Fabric Characteristics, Patterned Fabric, Regular - Irregular (Item 8): Standard Deviation and Number of Observations by Year
Figure 62. Bodice Fabric Characteristics, Patterned Fabric, High Contrast - Low Contrast (Item 9): Standard Deviation and Number of Observations by Year
Figure 63. Bodice Fabric Characteristics, Light - Dark (Item 10): Standard Deviation and Number of Observations by Year
Figure 64. Bodice, Fitted - Loose (Item 11): Standard Deviation by Year
Figure 65. Collar, Symmetric - Asymmetric (Item 26): Standard Deviation and Number of Observations by Year
Figure 66. Waistline, Fitted - Loose (Item 61): Standard Deviation and Number of Observations by Year
Figure 67. Below Waistline, Fitted - Loose (Item 67): Standard Deviation and Number of Observations by Year
Figure 68. Bodice, Angular - Rounded (Item 71): Standard Deviation by Year
Figure 69. Skirt Fabric Characteristics, Matte - Shiny (Item 75): Standard Deviation and Number of Observations by Year
Figure 70. Skirt Fabric Characteristics, Flat- 3-dimensional (Item 76): Standard Deviation and Number of Observations by Year
Figure 71. Skirt Fabric Characteristics, Stiff - Flowing (Item 37): Standard Deviation and Number of Observations by Year
Figure 72. Skirt Fabric Characteristics, Opaque - Transparent (Item 78): Standard Deviation and Number of Observations by Year
Figure 73. Skirt Fabric Characteristics, Patterned Fabric, High Contrast - Low Contrast (Item 81): Standard Deviation and Number of Observations by Year
Figure 74. Skirt Fabric Characteristics, Light - Dark (Item 82): Standard Deviation and Number of Observations by Year
Figure 75. Skirt, Symmetric - Asymmetric (Item 106): Standard Deviation and Number of Observations by Year
Figure 77. Skirt, Simple - Complex (Item 110): Standard Deviation by Year
Figure 76. Skirt, Determinate - Indeterminate (Item 109): Standard Deviation by Year
NOTES

1 Harper's Bazar, which was launched in 1867, was successful at its outset. It began to decline, however, around 1900 until William Randolph Hearst bought it in 1913 (Tebbel, 1969; Wood, 1956). The Delineator showed increasing success from its inception in 1873 until about 1920 (Tebbel, 1969).

2 For the months and years when all of the fashion illustrations were selected from Harper's Bazar, the first 10 acceptable illustrations would have been chosen from that magazine. However, at the time these illustrations were selected, it had been decided that the sample size would be decreased to three illustrations per month. Therefore, only six fashion illustrations were chosen (three of which replaced the missing illustrations from the Delineator).

3 For three semantic differential scales that occurred at the end of both the bodice and skirt sections, all the layers of the bodice and skirt, respectively, were considered simultaneously.

4 The sample had only one or two costumes that had the appearance of having four layers. For these illustrations, only the three outermost layers were coded.

5 Exception was made when reliability coefficients for the semantic differential scales that described fabrics were computed—the responses coded for these identical sets of scales in the bodice and skirt sections were combined so that the interrater reliability coefficient for each scale was based on responses for both the bodice and the skirt across each layer present.

6 For layered costumes, responses to the same item on all the layers were combined in the same $k \times k$ table.

7 The presence of subsequent garment layers did not necessarily ensure that all the various garment features would be present or visible on those layers. For this reason, number of observations per year for items describing bodice features and skirt features, respectively, were not necessarily consistent from item to item.

8 There were 18 fashion illustrations coded for each year.

9 Significant positive relationships between diversity and year occurred for 25 of the instrument items; for 26 of the instrument items, significant positive relationships were found between number of observations and diversity.
The female figures used in conjunction with the various body location scales were adapted from a figure appearing in Holman's 1980 article.

Sometimes forms of embellishment were combined or collapsed to form a response category because it was either too difficult to distinguish the two from each other, or the difference was considered insignificant.

The term "yoke" was sometimes used to refer to a fabric insert, usually of a contrasting fabric, placed at the area of the upper chest that was exposed by the bodice neckline. The purpose of this type of yoke seemed to be similar to that of the "chemisette."

The term "sleeve facing" was used on occasion to refer to what appeared to be an undersleeve of contrasting fabric poking out from under a sleeve. The term suggests that sleeve facings were not complete sleeves, and, though they gave the impression, did not attach to a separate bodice underneath.

A limitation of the study was that information about collar structural embellishment, or manipulation of the basic collar structure for embellishment purposes, was not coded. However, other than the standing collar type, structural embellishment rarely occurred within the various collar styles or features.

The three basic variations of the mutton leg sleeve included (1) the "classic" mutton leg, illustrated in the style guide; (2) a style in which the fullness was concentrated toward the sleeve cap and quickly tapered at the upper arm, fitting closely all the way to the sleeve hem; and (3) the "gigot" or "melon" style, in which the whole upper arm was engulfed in an extremely full, round sleeve and then suddenly close in to fit the arm from the elbow down.

During the 1880s, it was not uncommon for skirt layers to consist of a draped portion and a straight hanging portion, which was usually pleated.
REFERENCES


