COLOR CYCLES IN WOMEN'S CLOTHING FROM 1950 TO 1983, INCLUSIVE

By

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CHAPTER I

INTRODUCTION

"America has gone from a state of color-consciousness to almost complete color mindedness, expecting to see the spectrum in virtually everything within sight", stated Faber Birren, a renown color specialist (Birren, n.d.). Books have been written and studies performed which focus on how color is used in society. Color research is not limited to one or two disciplines. Historians, psychologists, sociologists, culturalists and home economists are but a few of the disciplinarians who have researched color. Research has been performed in areas regarding the role of color in various aspects of everyday life.

The following studies found that the use of certain colors provoked reactions from the subjects. One study, referenced by Kane (1982), explained how students reacted in different ways, depending upon the color that their classroom was painted. Classroom walls painted cool colors, such as blue, seemed to produce an atmosphere which had a calming effect, whereas classroom walls painted warm colors seemed to produce an atmosphere which made the students fidgity and inattentive (Kane, 1982). Kane (1982) cited another study in which a complete redesigning of the color of a hospital's interior produced immediate and positive effects. The color scheme was changed from brown and grey-green to bright colors—orange, pink, emerald and

lavender. The researchers noted an uplift in morale for patients and staff.

Kane (1982) and Ponte (1982) reported on a study in which the findings suggested that color, when used as a stimulus, could obtain desired behavioral results. One correctional institution painted the walls a shocking pink called Baker-Miller pink. The shade was reported to curb aggressiveness, to have a tranquilizing effect on prisoners, and to cause a weakness in muscles, reducing physical strength (Kane, 1982) and (Ponte, 1982).

The findings of another study, referenced by Kane (1982) reportedly showed that the healing processes in intensive care rooms were accelerated or retarded through the careful use of color. According to the findings of the study, when colored filters (blue and green) were placed on overhead lights, the patients' pain lessened considerably and in some cases, the pain subsided altogether and healing occurred more quickly.

McJimsey (1973) explained that the eye perceived warm and cool colors differently. Warm colors appeared to advance while cool colors appeared to recede (McJimsey, 1973). Reynolds (1983) explained that colors have been used to emphasize or minimize the perception of a person's figure. Light, shiny or warm colors (red and yellows) give the illusion of a person appearing larger, whereas darker, subdued and cooler colors create the illusion of a smaller figure (Reynolds, 1983). The notion of visual illusions created by color has been applied to the marketing of consumer goods. Red and yellow, two

colors frequently used in packaging, have been shown to be eyecatching and to make the package appear larger (Ponte, 1982).

Colors are used for identification purposes. Miller (1960) noted that specific colors were assigned to items for ease of identification. Traffic safety departments standardized colors across the country. The familiar red, yellow and green signal lights conveyed stop, caution and go meanings (Miller, 1960).

Schuyler (1982) explained how colors are used to disguise as well as to identify. Hunters wear camoflauge clothing to hide themselves from their quarry, while at the same time, they wear the bright red-orange color to be easily identified by other hunters (Schuyler, 1982).

Color was stated to provide better visibility ("Color in Medical Care Facilities," 1981). Hospital operating rooms use a medium blue-green color extensively in surgical caps, gowns, sheets and masks. The particular hue limited glare when the area was subject to intense light. The green color also helped with visual acuity and aided in color discrimination, because it was a direct complement to the red tissue and blood.

For the past few years, people have been trying to determine which colors best suited them. Jackson (1980) cited results showing that people look best in certain colors due to their skin, hair and eye colors.

Judith Rasband, in the Color Association of the United States Newsletter (1983), explained that the number of personal color analysis systems recently increased tremendously. She stated that the

middle class fad of color analysis was sweeping the country—especially in the West and Southwest.

John T. Molloy, author of Dress for Success (1977), performed many studies in the area of color in a professional situation. Molloy (1977) cited findings that indicated the color of professional apparel often made a difference in a person's credibility and authority in a professional career situation.

The impact of color was seen not only in apparel, but in other product areas. Ponte (1982) explained that the study of color in marketing was a big business. Millions of dollars were spent by businesses to discover what color a consumer would buy in a given product (Ponte, 1982). It was found that when a color was repeated throughout a product line, it emphasized distinctiveness and product identification (Schwartz, 1981). Jewelry and cosmetics were coordinated with the most fashionable colors in ready-to-wear explained Ingersoll (1965). She explained that accessories, such as shoes, hosiery and gloves were made to match the current apparel fashions. Rapid color changes in fashion are used as incentives to keep the consumers continually buying the newest fashions. Cecil Beaton (Ingersoll, 1965) summed up the importance of color in fashion when he stated that color was perhaps the most important element making up the total fashion image.

Fashion is continually changing. Many researchers have studied the evolution of fashion and concluded that a cyclic pattern exists in the popularity of these fashions. The framework for this research was that a cyclic nature existed in fashion, as evidenced by Paul

Nystrom (1928). Burns (1982) also determined that style cycles existed in women's fashions. The focus of this research was on examining women's fashions for possible color cycles and studying the nature of the color patterns.

Statement of the Problem

The purposes of this study were to determine if a pattern existed in the use of color for women's fashions and to investigate the relationship between the use of color and social and economic events from 1950 through 1983.

Objectives

This study had two major objectives:

1. To examine the use of color in women's fashion.
    a) By collecting data on the Fall and Spring colors of women's clothing for each year from 1950 to 1983, using the February and August issues of the Vogue magazine as a source, for the purpose of determining a possible cyclic nature of the colors.
    b) By classifying each color according to the Munsell color system.
2. To explore the possiblilty of a relationship between the percentage of occurrence of colors and the social and economic events at that time.

Significance of the Study

Limited color research has been performed. Some of the areas in which color research has been conducted include color's effect upon consumer product preferences (Martin, 1971-1972), the introduction of fashion colors (Chambers, 1951), and the group acceptance of certain colors (Danger, 1968). With the exception of the authors, Faber Birren and Eric Danger, and the Color Association of the United States, few researchers have investigated whether color cycles in fashion exist. Therefore, more research is needed in this area.

Studying the cyclic process of colors contributes to a better theory base for color research. Understanding this process is critical to the satisfaction of consumers. A study by Martin (1971-1972) showed that the color of a garment was second in consideration only to the price of the garment.

Determination of the existence of color cycles for women's fashions could be used as a guide to predict which colors are likely to be accepted by females. This information would be valuable to textile and apparel manufacturers.

Assumptions

The following assumptions were made:

1. The popular fashion colors of women's wear were shown in the Vogue magazine.
2. The February issue(s) of the Vogue magazines contained the Spring fashions for that year.

3. The August issue(s) of the Vogue magazines contained the Fall fashions for that year.

Limitations

Certain limitations existed for this study.

1. The limited time span of 34 years, from 1950 through 1983, was used for the study.
2. The collected data did not necessarily reflect the color preferences of the entire population of American women since only one source, a high fashion magazine (Vogue), was used.
3. The data may have represented only the colors being promoted by Vogue magazine, and not the colors actually being worn by the general public. However, color advertisements, which Vogue was not promoting, were also counted, thus minimizing the possibility of skewed findings.
4. The colors presented in the magazines might not have been indicative of the entire color selection for that year.
5. A secondary source, the Vogue magazine, was used. The researcher's initial concern over the fading of color reproductions was lessened due to the fact that the bound magazines remained air tight when not in use. Also considered was the fact that color reproductions might not be adequate in the earlier 1950's. According to the Basic Fashion Training Manual (University of Texas, 1951), an increased number of color photographs were being used in magazines due to the excellence of color reproductions.

6. Each color in the source had to be matched to the Munsell color according to the researcher's own interpretation based on knowledge and past experience. Prior to the recording of data, the Farnsworth-Munsell 100 Hue Test for color vision was administered to the researcher. The results indicated that the researcher scored very high on the perception of the colors and the ranking of the colors by hues, thus minimizing this concern.
7. When establishing a method for graphing the hues, the researcher encountered the problem that each hue category had colors that were similar. For example, the color of 10RE (reddish yellow red) was similar to a 2.5YR (reddish yellow). The researcher chose not to split colors within the hue family, because of the limited data, especially in the earlier years of the study.

CHAPTER II

REVIEW OF LITERATURE

Many speculations existed in the area of color cycles in women's fashions. Most researchers indicated that a pattern in color usage was evident. Faber Birren and Eric Danger were two researchers who studied color extensively. They frequently discussed color cycles and color patterns. The Color Association of the United States was a research group in the area of color trends and cycles in women's fashions. A major purpose of the Association was to study and predict color patterns (American Fabrics and Fashions, 1979).

The review of literature focused on several aspects of color which included: the system used for color analysis, the concepts of color introductions and color trends, color preferences and color popularity, color changes, color predictions, and social and economic influences on colors.

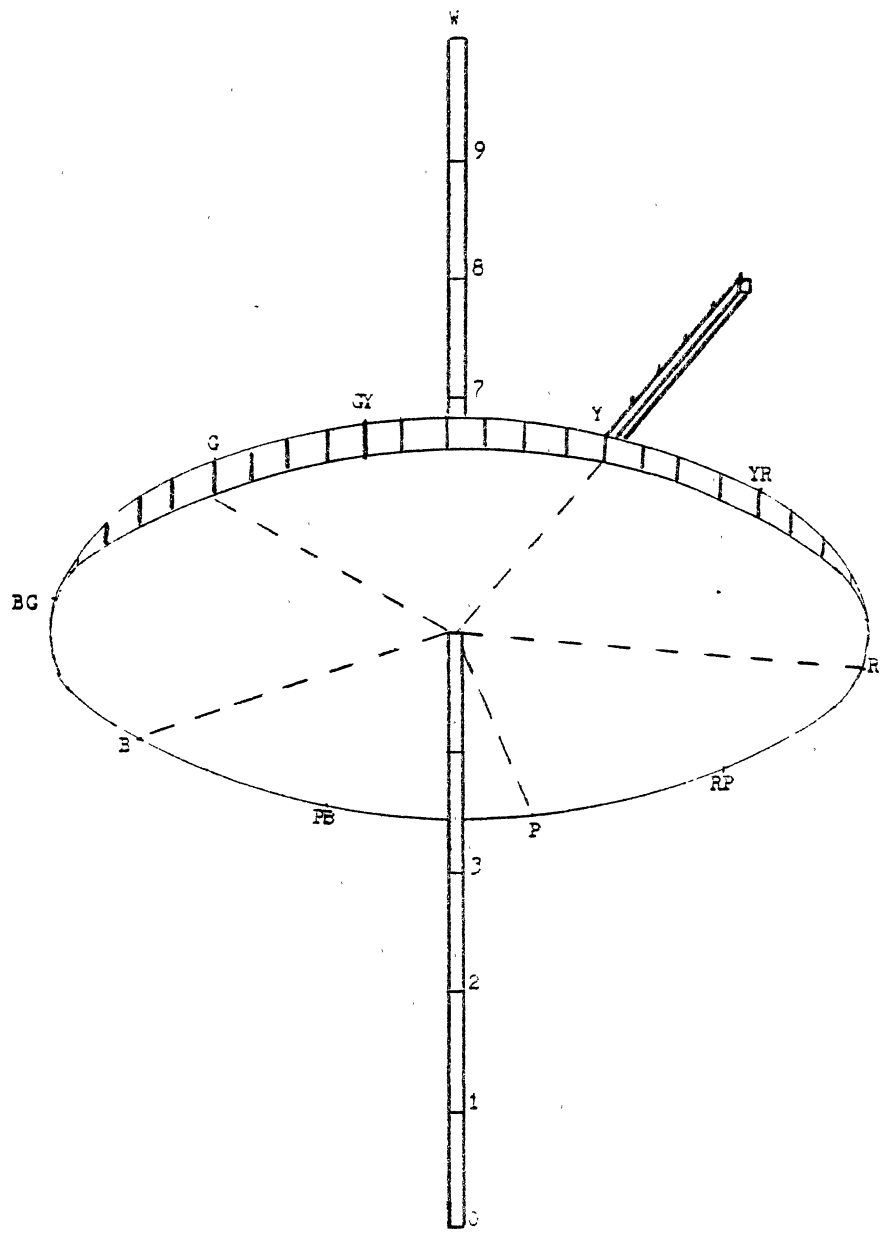
Color Notation

A. H. Munsell, a noted color authority stated that every color was tri-dimensional. Three distinct parts, hue, value and chroma were combined in such a way that a single color was the end result. Hue refers to the name of the color or color family, such as red. Value represents the lightness (tint) or darkness (shade) of a color. Chroma denotes the intensity of a color or the strength of a color

(Munsell, 1946).

Munsell developed a notation system by which to identify the hue, value and chroma. The system classified each hue into the following ten categories: red, yellow red, yellow, green yellow, green, blue green, blue, purple blue, purple, and red purple. According to the Munsell (1946) system, the values for each color ranged from one to ten, with one being the darkest value (black), and ten, the lightest value (white). All other numbers from two to nine were gradations of the neutral, gray (Munsell, 1946). The range of chromas for each color began at the level of one. A hue with a chroma of one was a weak hue and a hue with a chroma of ten was an intense or strong hue (Munsell, 1946). Thus, a color listed as 10GR07/10 was a highly intense, medium light, green blue-green or a bright turqoise.

Figure 1 is a pictoral representation of a color tree, showing the relationship among the hue, value and chroma (Munsell, 1946). This color tree was developed by assigning the value to the vertical axis. Perpendicular to the trunk are the branches of the tree which designated the scale of chroma. All of the branches were equidistantly spaced around the tree trunk. Each branch was assigned a hue and each branch was placed at the correct value level, according to its colors. The branch nearest the white at the top of the trunk, is yellow, being followed by green, blue and purple branches. The lower values approach the base of the trunk. The chroma of the color extends out on the branch, with the most intense hues at the farthest end of the branch. When new pigments were developed with even higher chromas, the branch was lengthened (Munsell, 1946).



Source: A.H. Munsell, A Color Notation (1946).
Reprinted with permission from the Munsell Color Company.

Figure 1. Munsell Color Tree

Classics and New Colors

Chambers (1951), an expert on color and design, reported that a "new color" was one not previously available in a particular merchandise. "New colors" may be introduced by designers, decorators, television and movies. Margaret Ingersoll (1965) stated that no specific way existed for determining what colors would become popular, although three factors, sensitivity, timing and deduction were important for arriving at the probable popular color selection for each year. She continued by explaining that the marketer was required to determine which colors were "staples" or those accepted each season, such as red. The marketers were also required to determine the colors the public was weary of. Once the staples and the overused colors were eliminated, then the search for new colors began, explained Ingersoll (1965). It was possible for an old color to become popular again after it had been obsolete for several seasons (Ingersoll, 1965). Danger (1968) stated that although precisely defining where a color trend started was difficult, it could reasonably be stated that most color trends began in the "haute couture" of women's fashions. Several new colors were promoted each year in women's wear, but only a select number of colors actually trickled down to the mass market (Danger, 1968). "High style" colors were considered to be similar to "high fashion" apparel, said Chambers (1951).

According to Wasson (1968), a classic color was not an extreme. A classic was not a "hot" red at one end of the spectrum, nor was it the "ice" blue at the opposite end of the color spectrum. Rather, it was a moderate color, pleasing, but not too conspicuous to an

observer. Classics were compromises, they might have been a popular color at some point in time, but rarely were they the rage. Cream and beige colors are good examples. Cheskin (1947) said that when colors were shown repeatedly, they became monotonous. For that reason, people looked for new colors. The following quote by Cheskin (1947, p. 41) described the feeling he associated with a new color. "We are generally pleased by something new about the old. The new aspect is stimulating, and the old gives us the feeling of familiarity and thus creates a sense of security."

Color as a Fashion Trend

According to Danger (1968), a color trend was considered a fashion. Sproles (1981) explained that fashion trends may have been a grouping of tastes in colors toward a given direction and these features were significant in collective selection. Collective selection referred to the method by which a group of people with similar preferences for a given fashion might begin a trend (Sproles, 1981). According to Herbert Blumer (1969), collective selection referred to the consumers' choice for fashions that matched developing tastes of what was becoming the fashion.

Colors in apparel were dependent upon a definite fashion trend (Chambers, 1951) and ran in cycles (Birren, 1956). An obsolescence cycle classified colors as those which were gaining popularity (selling ascendancy) and those which were on the decline in popularity ("Understand Color," 1959). Color trends spread in a horizontal way and may have been influenced by a variety of things, stated Hayter

(1965). According to Mary T. Fennell of Monsanto Fibers and Intermediates Company (personal correspondence, 1983), "seasonable" colors did follow a trend and were not randomly selected. Elsa Schiaparelli, a Parisian designer, explained that when a new silhouette appears, it sometimes demanded a new color (Chambers, 1951). Fabric marketing demanded new colors, said Hayter (1965). In the area of fabrics, attention was geared toward the color of a fabric rather than the other fabric attributes. The fabric manufacturers depended upon new and different colors to enhance their fabrics (Hayter, 1965). Danger (1968) explained that another factor possibly starting color trends might have been the discovery of a new dye which may have set off a demand for the new color, or the "follow my leader" attitude. This happened when a designer tried out a new shade and others followed suit. Unless the designer followed the general direction of public demand, the new color may not have popularized. The retailers could not force the mass markets to buy colors they did not desire (Birren, 1956).

The majority of color trends began with women's fashions (University of Texas, 1951). Eric Danger (1968) reasoned that the women's press usually picked up on a color being promoted. A limited number of people opted to buy this color and the color increasingly built up authority. Danger (1968) explained that if a woman was attracted to this color of apparel, she purchased it in other product areas, thus increasing the demand for the new color. Since most people were conformists, the demand could become quite strong (Danger, 1968).

Faber Birren (1956) and Hayter (1965) observed that many color trends originated in high fashion, but only a select few saturated the mass markets. Hayter (1965) believed the process could take three to four years. She explained that the time period needed for a color trend to peak in popularity could be quite short. Midge Wilson, the executive director of the Color Association of the United States, Incorporated, said "there isn't time for a new color to 'filter down from the top'-instead, it spreads like measles from one field to another so that it is important in many fields at the same time" (Hayter, 1965, p. 91).

George Sproles (1981), stated that periods of fashionability existed for colors. He explained that a fashion color or set of colors were popular for a year or for several years. Each season, fabric manufacturers and designers showed their newest colors, but a color remained the same for several years with only the name changing to follow fashion trends (University of Texas, 1951). Hayter (1965) noted that if a fashion color chart was developed for a two to three year period, the colors to which the public was accustomed were seen in all the years. Faber Birren explained that colors were popular for three years (Toufexis, 1983). Normally color cycles did not have as long a life as did traits that were characteristic of the general silhouette, but the trends did move slowly (Danger, 1968). Due to apparel mass production techniques, the markets were quickly saturated by a color and the results of the saturation was a shorter life of the color (Hayter, 1965).

The life of a color depended upon its seasonality (Hayter, 1965).

She explained that a neutral beige may have varied slightly in color among seasons, but would have had a long run of popularity, whereas sharper, more brilliant colors, such as magenta, may have been misused and could become outmoded quickly. Some colors were strictly seasonal and may have been replaced or varied the following year (Hayter, 1965). Color trends in general consumer goods had a life cycle of about ten years of popularity, although the color never completely disappeared (Danger, 1968). According to "Understand Color" (1959), no specific length of time existed for a color cycle in apparel.

A color cycle's life span was usually determined by people in the lower social and economic classes. The upper classes were usually the first to adopt a new color in fashion. When the color was finally "knocked off" to sell in a cheaper version of a garment, then the upper class person discarded the garment. Finally, the less expensive "knock off" was discarded by the lower classes and the color cycle ended ("Understand Color," 1959).

Color Preferences

The popularity of fashion apparel ran in cycles from the higher priced to lower priced apparel. If the item was popular in the higher price lines, it had a good chance of being readily accepted in the lower price lines. The popularity of a fashion color did not depend on the price of an item. Often the same colors that were found in high priced items were sold to the mass market in lower priced items (Danger, 1968).

The confirmation of a color trend was left to the mass markets

(Hayter 1965). Danger (1968) stated that although color trends reflected the preferences of the majority, no one trend applied in every situation. Some people existed who refused to accept the wants and likings of the majority (Danger, 1968).

According to Krugman and Hartley (1960), the more times a person saw a new color, the more likely he/she would be to accept the new color. Hayter (1965) stated that when a color was shown widely enough that it was making an impression, then the color trend was acknowledged. Consumers liked colors to which they were accustomed. For instance, they preferred the blues of sky and sea, the greens of grass and trees, the yellow of the sun, and the red of roses (Hayter, 1965).

Colors went through fashion trends in consumers' preferences, but some colors were continually preferable to other colors (Sproles, 1981). The four primary hues that were more desirable than any others were red, green, yellow and blue (Birren, 1956). Birren explained that these hues were found by psychologists to be desirable to the human heart and when these appeared as dominant colors in any color combination, the items were better liked (Danger, 1968). Cheskin (1947) noted tests that indicated blue, violet and red colors of the spectrum were preferable over the other half of the spectrum, yellow, green and orange.

Color specialists, Faber Birren contended that certain colors never popularized to a great extent. Purple was one example of this type of color. He believed that something inherent to human nature prohibited some exotic colors from becoming one of the most popular colors (Toufexis, 1983).

A person's preference for a hue might have been lowered or raised depending on whether the hue became a tint, shade or pure hue. The value of a color made a difference in whether or not a hue was preferred. For example, a pure blue green hue had a higher preference rating than when the blue green hue was combined with black (Cheskin, 1947). He also found that in most cases, people unconsciously strived for a balance between calm and stimulating colors. Although color sensations did not always reach the conscious mind, the sensations created emotional responses.

The popularity of color depended on the type of consumer. According to Danger (1968), gender, age, traditionalism, contemporarity, sophistication, conservatism and marital status all influenced a person's choice of colors. Young people were attracted to bright colors and the older people liked subdued colors. pink, blue, red, yellow and green were popular for women (Danger, 1968). Men preferred blue first and women chose red as their favorite color (Cheskin, 1947). Birren revealed that certain colors appealed to specific types of consumers (Toufexis, 1983).

Cheskin (1947) stated that colors which were unusual, subtle or off shades were not readily wanted by the average consumer. Birren (1956) indicated that low income consumers opted for bright and simple colors and pure hues as opposed to choosing subtle colors and deep shades. The bright and simple colors tended to be preferred by the low-price end of the market, the mass market (Danger, 1968). Birren (1956), also expressed the idea that average consumers or masses desired colors such as red, green or blue. Their desires reflected

the national fashions at that time. Consumers at the low income end of the market did not radically change color preferences. They preferred to stay with their favorite colors for longer periods of time than the consumers in higher income brackets. The sophisticated consumer desired colors which were different—what no others had (Birren, 1956). More sophisticated markets selected "different" colors. These markets were often the ones that started color trends (Danger, 1968).

According to Faber Birren, regional color preferences were prevalent in the United States. In Selling Color to People (1956), Birren noted that regional color preferences were almost non-existent because of national promotions and quick distributions. The geographical location of markets has little to do with which color was preferred by consumers (Danger, 1968). Midge Wilson of the Color Association of the United States, Incorporated stated that rapid communication had resulted in immediate, universal awareness of a new color at its introduction (Hayter, 1965). Mass communication had eliminated much of the regional differences (Danger, 1968). Birren (1956) described the major influence on regional color differences as being the amount of sunlight, rather than the temperature. Brighter colors, like red, were preferred in climates with abundant sunlight. Softer, more muted colors, like green and blue, were preferred in climates with scarce sunlight (Birren, 1956).

Cheskin (1947) believed that the environment influenced color preferences. Eastern European people of peasant origin preferred bright, pure hues, while those raised in the city usually chose

neutrals and more delicate colors (Cheskin, 1947). Birren explained that people of Latin origins, such as the Spanish, Italians and French were seen as extroverts and usually desired the warm colors of reds and oranges (Toufexis, 1983). Birren further explained that people of the Nordic origin, such as the Danish, Swedish and Norwegian were seen as introverts and chose the cooler colors of the blue family (Toufexis, 1983). Primitive cultures chose to use bright, saturated color in their decorations and art. Civilized cultures preferred to use more muted or more subtle colors, merely accenting with bright colors (Cheskin, 1947).

Color Changes

Danger (1968) explained that changes in consumer preferences required changes in color. Martin (1975) and Danger (1968) found that color was a primary factor in a purchasing decision. Danger (1968) further stated that the manufacturer was responsible for having the colors desired by the consumers, available for purchase at the time the customer was in a buying mood. The manufacturers needed six to twelve months to add a new color to their line, therefore, they usually carried a large enough selection of colors that it could meet all the regional preferences ("Regional Color Preferences," 1975). Sales depended on whether or not that color was available (Danger, 1968).

When changing colors, the manufacturer seldom drastically changed colors (Danger 1968). He explained that the likes and dislikes of consumers did not change rapidly. Hayter (1965) discussed that when promoting a new color, the marketer realized that the color would

probably not be accepted at once. The adage, "familiarity breeds acceptance" applied to color in fashion (Hayter, 1965). Lindauer and Dintruff (1975) explained the concept that a newly introduced fashion color was more likely to be accepted if it was similar to the existing color. Colors which contrasted sharply with the existing color had a more difficult time gaining popularity. However, they explained that exceptions did exist. An individual's own preference for a particular color, based on his/her perceptions and evaluation, was as important a selection factor as was the new color's resemblence to the existing color (Lindauer and Dintruff, 1975). But, rarely did a person purchase the same color twice—especially in apparel, said Danger (1968). He stated that marketers changed or devised new colors because new color attracted attention.

According to Danger (1968), the average consumer was afraid to trust herself in making the decision about which color to buy. Therefore, she relied on what others around her were buying, what was shown in advertisements, or what was recommended by the press. He further explained that other "average" consumers relied on the same factors. Thus, the same influences persuaded the consumers and they tended to follow the same path (Danger, 1968).

According to Danger (1968), at a given time, there was usually one color which was a top seller in almost all product categories. This color was wanted in various shades and tints, depending on the market and product. Careful analysis of sales records and observations revealed the pattern of consumer purchase with regard to a color. The popularity of the color gradually increased until it

peaked, then it declined.

Not only was the pattern of consumer purchase analyzed, but other trends were, too. These trends included the desirability of bright, pastel or earth tones. The popularity of bright colors might follow a trend course different from other colors (Danger, 1968).

After a certain color had been popular for a long run, the consumers grew tired of it, and searched for a "new" color (Danger, 1968). Hayter (1965) explained that women got tired of seeing the same color in apparel. Danger (1968) explained that to protect their eyes from over-exposure, their eyes automatically shifted to the complement of that color. A move toward the opposite end of the color spectrum began, but this was a slow process (Danger, 1968). A difficult prediction to make was which direction on the color spectrum the shift would follow (Hayter, 1965). A trend toward the complementary color gradually began. The new hue was a compromise between the two complements. An immediate change was not feasible, because of economic limitations (Danger, 1968).

Predicting Fashion Colors

Danger (1968) suggested that two methods be followed for forecasting color trends. The first method involved the determination of current popular colors through analysis of retail sales and through survey data of retailers' opinions. An observation of colors in women's fashions that were being promoted, becoming popular, already popular or were just beginning to develop as trends constituted the second method.

Studying the colors being shown in an influential women's magazine with good color reproductions was a useful method for forecasting color trends. The magazines recommended certain colors to their readers, who many times listened to the recommendations given to them in the press. Advertisements were also good indicators of color trends because the colors used in the advertisements should have illustrated the popular colors or those colors expected to be popular (Danger, 1968).

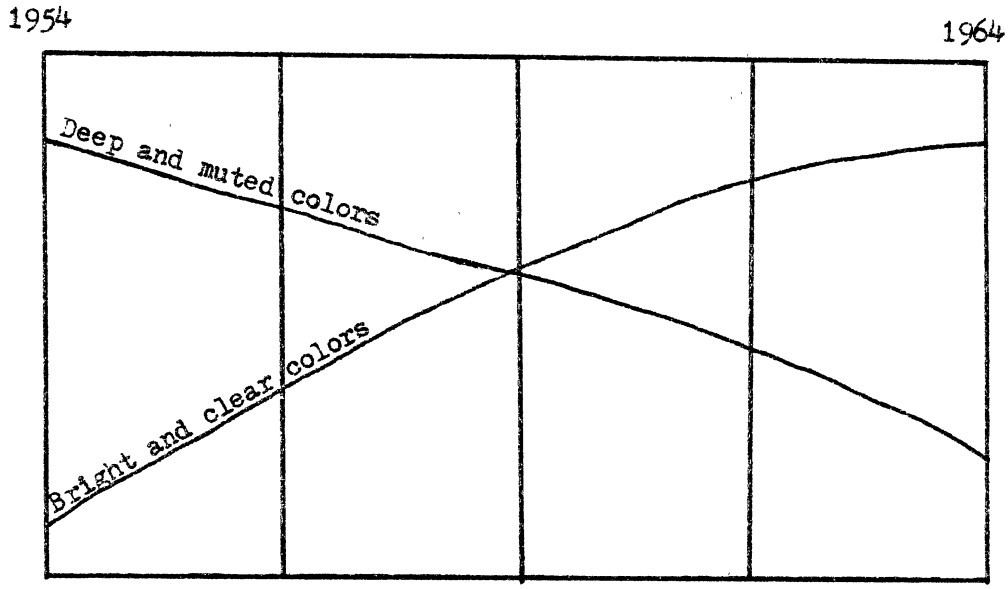
Danger (1968) decribed one responsibility of manufacturers of women's apparel as selecting colors that would have been offered to the consumer in apparel products. In order to maximize sales, the manufacturers identified which colors were becoming popular and why people selected one color over onother (Danger, 1968). Success rates of these merchandisers depended on their ability to work with the current fashion trend and not against it (Nystrom, 1928). Danger (1968) explained that by studying past sales records and observing the current trend in colors, the predicters could identify the favorite color, thus increasing sales by satisfying the majority of the target population.

Sociological and Economic Influences

When fashions changed, colors changed (Chambers, 1951). She explained that a color's acceptance differed depending on the year and the state of mind of the people. A popular color was an indication of how people were feeling at that particular time. Chambers (1951) believed that one of the most accurate authorities in the retail world

was David Nemerov of Russek's Fifth Avenue, who said that in women's apparel, color reflected the seasons, events and spirit of the people. When apparel sales centered around grays, blacks and navys, a somber mood was over the people. Peacetime brought a controlled use of color. A demand for exotic colors existed when the spirit of the people was gay and lively (Chambers, 1951).

Danger (1968) stated that the 1960's brought about a change in color trends. Due to the increased spending power of the youth, a tendency toward more and brighter colors began to influence the color trends. Psychedelic colors, products of the 1960's teenagers, were demanded in clothes as well as other products not usually purchased by teenagers, such as furniture (Danger, 1968). Figure 2 is an overall trend chart for colors in general consumer goods from 1954 to 1964 (Danger, 1968).



Source: Faber Birren in E.P. Danger, Using Colour to Sell (1968). Reproduced with permission of Faber Birren.

Figure 2. Overall Trend Chart for Colors in General Consumer Goods

Prior to 1976, sunny colors prevailed due to the flourishing young market ("Regional Color Preferences," 1975). Tranquil colors and softened tones popularized in 1976 and 1977 due to increasing tension in the United States. These colors were sought as counter-balances to the tensions ("Regional Color Preferences," 1975).

The emotions of society were actively involved in determining which colors would or would not succeed ("Understand Color," 1959). It was theorized that red virtually disappeared after wars because the trauma associated with blood (the color of red) caused a great deal of

stress. Under normal circumstances, red was a popular color in the public's view. Therefore it would eventually come back into view ("Understand Color," 1959).

Economic situations had a bearing on color value popularity (Chambers, 1951). Traditionally, bright shades were a sign of a healthy economy and increased spending money (Danger, 1968). In prosperous times, vivid colors were on the upswing (Chambers, 1951) and (Color Association of the United States, 1984). People had more money to spend and bought for the short term instead of the long term. During periods of financial stress, consumers desired quality and rich colors in rich color combinations ("Regional Color Preferences," 1975). During a depression, a muted, earth tone was popular, because a subdued color had a longer life than a bright, faddish color (Danger, 1968). Faber Birren stated that in a troubled era, people chose colors that were calm and without tension. These colors had qualities the economy was lacking (Toufexis, 1983).

Prior to 1975, during the Richard Nixon presidential administration, Time magazine (Sidney, 1975) labeled the years the Nixon era. This era was characterized by vivid blues and golds, and was inspired by southwestern states. The years after 1975, during the Gerald Ford presidential administration, were considered the post Nixon era. The colors of this era included soft green, rust and beige. These colors were inspired by Gerald Ford's Great Lake states (Sidney, 1975).

The popularity of colors also depended on the feelings of society. If an economic depression existed during one season, then fashions for the following season were more colorful, in order to

uplift the depressed state of the people and fill the needs of society (Ingersoll, 1965). A study of suiting fabric during World War II showed that subdued and somber colors were popular (Chambers, 1951). Danger (1968) explained that after World War II, a "pastel era" existed because pastel colors may have been a gentle contrast to the severity and restrictions of shortages during the war. The pastels were followed by drab shades, and in turn, the drab shades were followed by bright colors (Danger, 1968).

Color Association of the United States

The Color Association of the United States was founded in 1915, and until 1954, was called the Textile Color Card Association (Akey, 1982). This association exerts a great influence in the field of color forecasting for industries ranging from automobiles and airplanes to cosmetics and textiles by standardizing colors for these industries (Akey, 1982).

The members of the Color Association of the United States received monthly information and semi-annual newsletters on color forecasts and color trends (Color Association of the United States, 1984). The members have access to 60 years of past, popular color information in apparel (Toufexis, 1983) from the archives and the color swatch library (Akey, 1982). Records of past color patterns in the archives, allow the members to keep abreast of the changes in patterns of colors in their respective industries ("American Fabrics and Fashions," 1979).

According to the Color Association of the United States (1984),

the first step in color forecasting was made by a panel of experts. The experts consisted of people in the area of color, marketing, merchandising, sociology and psychology. Market tests and studies were performed and predictions were made. The second step in color forecasting was the selection of colors. These colors were closely examined and divided into three groups. These three groups were the horizon shades, the midday shades and the sunset shades. The horizon shades included the new shades, the midday shades were those shades continuing in popularity, and the sunset shades were shades of declining popularity. The panel of experts discarded the sunset shades from the color forecasts. The experts, keeping the target market in mind, carefully analyzed the horizon shades. The midday shades, or volume shades were safely used for color forecasting (Color Association of the United States, 1984).

CHAPTER III

METHOD AND PROCEDURE

This study was exploratory in nature. The objectives of the study were: 1) to examine the use of color in women's fashions for the Fall and Spring seasons from 1950 through 1983 using Vogue magazine as the source; 2) to explore the possibility of a relationship between the popularity of colors and the social and economic happenings at that time.

Selection of Time Period

Selection of the time period for this historical study was based upon past theories on the time length for color cycles. Each of the following researchers proposed different cycle lengths of colors. These cycle lengths varied from one to ten years. Danger (1968) explained that a color cycle usually lasted about ten years. Sproles (1981) also indicated that periods of fashionability existed for colors. He stated that a fashion color could be popular for a year or for several years. According to Hayter (1965), if a fashion color chart was developed for a two to three year period, the color would be seen in all the years and Birren (1956) explained that the popularity of a color lasted three years. In "Understand Color" (1959), it was reported that a color cycle lasted no specific length of time. The researcher determined that a 34 year time span, from 1950 through

1983, would be a sufficient length of time to determine if any cycles existed in the women's fashions in Vogue magazine.

In 1951, the Basic Fashion Training Manual explained that an increasing use of excellent color reproductions existed in magazines (University of Texas, 1951). Therefore, it was determined to be acceptable to use the color photographs shown in the Vogue magazines as early as 1950.

Selection of Data Source

Data for this study were obtained from the women's fashion magazine, Vogue. Prior to specification of the data source, several possible sources were investigated. Vogue magazine had the greatest number of color photographs and was therefore selected.

The first objective of this study was to examine the use of color in women's fashions for the Fall and Spring seasons from 1950 through 1983. The selection of Fall and Spring categories were based on the Burns study (1982) in which the Sears and Roebuck Company Catalog was the source used to supply dress styles for a historical study. This catalog was published semi-annually, showing either the fall/winter or spring/summer fashions. On this basis, the fall and spring categories for this historical study on color in women's fashions were developed. For the purposes of this study, the Sears and Roebuck Company Catalog was not feasible, because the back issues were placed on black and white microfische and the actual catalogs were no longer available.

Due to time constraints of this research, it was not possible to count the colors in each of the monthly or bi-monthly issues of Vogue

magazine from 1950 through 1983. The Vogue Information Office (Personal correspondence, April 15, 1983) indicated that the January and February issues were good indicators of Spring colors, and August and September issues were good for Fall (Appendix A). Until 1973, two issues of Vogue were published during each month. Both were used.

Identification of Data

A classification system for identifying the color to be counted in women's apparel was developed. The clothing found in color photographs, including Vogue magazine's features and advertisements were counted. The colors were counted only if a measurable amount of color was available for comparison with the Munsell Book of Color (1957). A color was determined to be measurable if enough evidence of the color existed so that the researcher could accurately determine a matching color on the Munsell (1957) color chart.

In garments containing more than one color, such as prints, plaids or stripes, all of the colors were counted that were clearly visible and could be compared to a Munsell (1957) color. In instances in which garments were two or three pieces, such as a suit or matching ensemble, the color was counted only once, even if it appeared more than once. This was done to prevent possible skewing of the data, since an entire mix and match ensemble might be shown with only a few colors, but several outfits.

The items counted included coats, jackets, sweaters, skirts, blouses, pants, dresses and all other forms of outerwear. The items not counted included accessories, fur coats, lingerie, sleepwear,

robes, children's wear and men's wear. The particular inclusions and exclusions were made on the basis of careful analysis of the source of the data.

All of the forms of outerwear selected for color recording were dyed in colors ranging from pastels to vivid hues. Those apparel items not used were not shown in the general colors of the other garments. Use of these items might possibly have skewed the findings. Some accessories were "made to match" the apparel items, but others were made in neutral or versatile colors, such as black or beige handbags and shoes. Fur coats tended not to be dyed and were left the natural colors. Lingerie, sleepwear and robes were frequently shown in whites, beiges, blacks or blues. This neutral color distribution might also have skewed the results. A limited amount of children's wear and men's wear was shown in the Vogue magazine. It was not used because the study focused on women's wear.

Gathering of Data

The Munsell Book of Color (1957) was used to assign a notation to each usable color in the Vogue magazine. A neutral (gray) mat was positioned over each color photograph used for the study. The rectangular mat was five inches wide and nine inches long. A cut out rectangle, three eighths by five eighths inch, was located in the center. This opening was centered over the color being matched. The gray mat covered other colors to minimize misperceptions of the color due to surrounding colors. A duplicate mat was laid over the matching color square in the Munsell Book of Color (1957). When the closest

match was located, the color was recorded. This procedure was repeated for all usable colors in the February and August issues of the Vogue magazine from 1950 through 1983.

The manner in which each color was recorded was developed by A. H. Munsell (1946). Each color was classified as an eight digit code. The first four digits represented the hue, the fifth and sixth digits represented the value, and the last two represented the chroma. The number of colors counted in the February and August issues of Vogue magazine totaled 6550.

Compilation of Data

The frequencies of hues, values and chromas of the women's fashions from 1950 through 1983 that met the established criteria were recorded (Appendix B). To increase the sample size, the February and August data from the Vogue magazine were combined for the hues (Table I, Appendix B) and chromas (Table IV, Appendix B). The February and August data for the values (Table II and III, Appendix B) were analyzed separately, because examination of the data revealed that darker values were shown more often in the August issues and lighter values were shown more often in the February issues of the Vogue magazine.

Frequencies and percentages were calculated for the hues, values and chromas by year. The percentages were calculated by dividing the total number of hues, values or chromas by the total colors occurring in the designated year. For example, in 1950, 16 (reds) were divided by 73 (total colors for 1950) to determine the percentage of occurrence, 21.9 percent of red for 1950.

Grouping of Hues

The hue was studied separately from the value or chroma. A frequency table (Table I, Appendix B) was developed by the alphabetical designation of the hue only, disregarding the numeric value of the hue. For example, the color, 10RE0504, was grouped under the RE (red) heading. The color, 2.5GY, was grouped under the GY (green yellow) heading. Thus, eleven categories were developed. These categories were RE (red), YR (yellow red), YE (yellow), GY (green yellow), GR (green), BG (blue green), BL (blue), PB (purple blue), PU (purple), RP (red purple), and NT (neutral). Both months were combined in all hue groupings due to the limited number of colors that had been counted.

The neutrals, black, white and gray, were recorded as OONT. The fifth and sixth digits in the color notation indicated the value level (Munsell, 1946). A OONTOO represented black, while a OONT10 represented white. If the value digits were any other numbers, such as OONT04, the digits represented the lightness of darkness of the gray. A OONT02 constituted a charcoal gray, whereas a OONT09 constituted a very light gray. The sample size for OONT0100 was too small to examine, so this dark gray was combined with the black category, OONTOOOO. Due to the glossy characteristics of a photograph, very dark grays may have been perceived as black.

Grouping of Values

The value was also studied separately from the hue and chroma. Frequency tables (Tables II and III, Appendix B) were developed by months. The February and August months were not combined, because

evaluation of data indicated the dominance of light values for Spring and dark values for Fall. Had both months been combined, the results might have been an average of the two—a medium range of values.

After examination of the frequencies of the values, it was decided to group the data in the following manner. Darker values from two through five were combined and labeled as group one, and were subsequently used in graphical presentations. Lighter values of six through nine were combined and labeled as group two, and were also used in graphical presentations.

The values data were pooled into two groups for each monthly issue of the Vogue magazine, because it increased the data size. Individual groups consisting of only one level of values were too limited for study. It was necessary to combine values in order to reveal a trend.

Grouping of Chromas

The chroma was studied separately from the hue or value. A frequency table (Table IV, Appendix B) was developed by each year. After examination of the percentages of occurrences of chromas, it was decided to group the data in order to increase the sample size. Less intense chromas of one through five were combined and labeled as group one, and were subsequently used in a graphical presentation. More intense chromas of six through sixteen were combined and labeled as group two, and were also used in a graphical presentation. Because of the extreme intensities of color with chromas over the level of ten, very few were shown in the Vogue magazine.

Graphing of Data

The data for hues, values and chromas were individually graphed over the 34 year time span. The vertical or Y-axis designated the percents of the hue, values or chromas by year. The horizontal or X-axis designated one year increments from 1950 through 1983.

A smoothing technique adapted from the method used by Richardson and Kroeber (1940) was used on all of the data plots. The Richardson and Kroeber (1940) technique used a five year moving average which was calculated by adding the particular year's percent to the percents of the two preceeding and two suceeding years. These five figures were averaged, thus giving a smoothed curve.

After examination of the percents of occurrence, a three year smoothing procedure was chosen. This three year smoothing technique was calculated by adding the particular year's percent to the percents of the immediately preceeding year and the immediately succeeding year. The sum of the three years was divided by three to give the average.

CHAPTER IV

FINDINGS

The first purpose of this study was to determine if a pattern existed in the use of color for women's fashions in the February and August issues of the Vogue magazine, from 1950 through 1983. The second purpose was to investigate the relationship between the use of color and social and economic events in that time frame. Graphical presentations of the findings for the hues, values and chromas are given. Secondly, relationships between the hues, values or chromas are discussed. A summary discussion relating the findings and the social or economic events of the time period conclude this chapter.

Examination of percentage of occurrence of the color data was conducted before selecting the most appropriate method to graph the data. Because a limited number of color photographs were presented in the early 1950's issues of the Vogue magazine, the February and August data for each of the hues and each of the chromas were combined to form one set of data for each year. The combined data are shown in the following plots.

The data for values were not combined since the percentage of occurrence showed a large difference between the values of the February (Spring) issues and the August (Fall) issues colors of the Vogue magazine.

Red

The red hue (Figure 3) constituted a grouping of the color notations 2.5RE, 5.0RE, 7.5RE and 10RE. The hues in this group ranged from a reddish red purple (2.5RE) to a reddish yellow red (10RE).

The findings indicated that the percentage of occurrence of red in Vogue magazine remained at a fairly constant level for the 34 year time span under study. Except for five years, from 1964 through 1968, the percent occurrence for any given year in the 34 years under study varied between 16 and 21 percent of all usable color photographs shown in Vogue magazine. In 1959, the percent occurrence of red began to gradually decrease, with a sharp drop occurring in 1964. The percentage of occurrence in 1964 was 11 and was the 34 year low. This low was continued for two more years. In 1967, Vogue began to show red more often and the percentage of occurrence rose from a 1966 low of 11.5 percent to 14.5 percent in 1967. In 1968, it rose to almost 16 percent and continued to rise until it peaked at over 19 percent in 1970. From 1971 to 1983, the percentages of red fluctuated slightly, but remained between 16 percent and 20 percent.

Yellow Red

Figure 4 shows a graph of the percentage of occurrence of colors in Vogue magazine recorded as yellow red for each year during the 34 year time span. The hues in this category included 2.5YR, 5.0YR, 7.5YR and 10YR. The Yellow red hue included colors from a red orange (2.5YR) to some beiges and tans (10YR). Yellow red was observed to

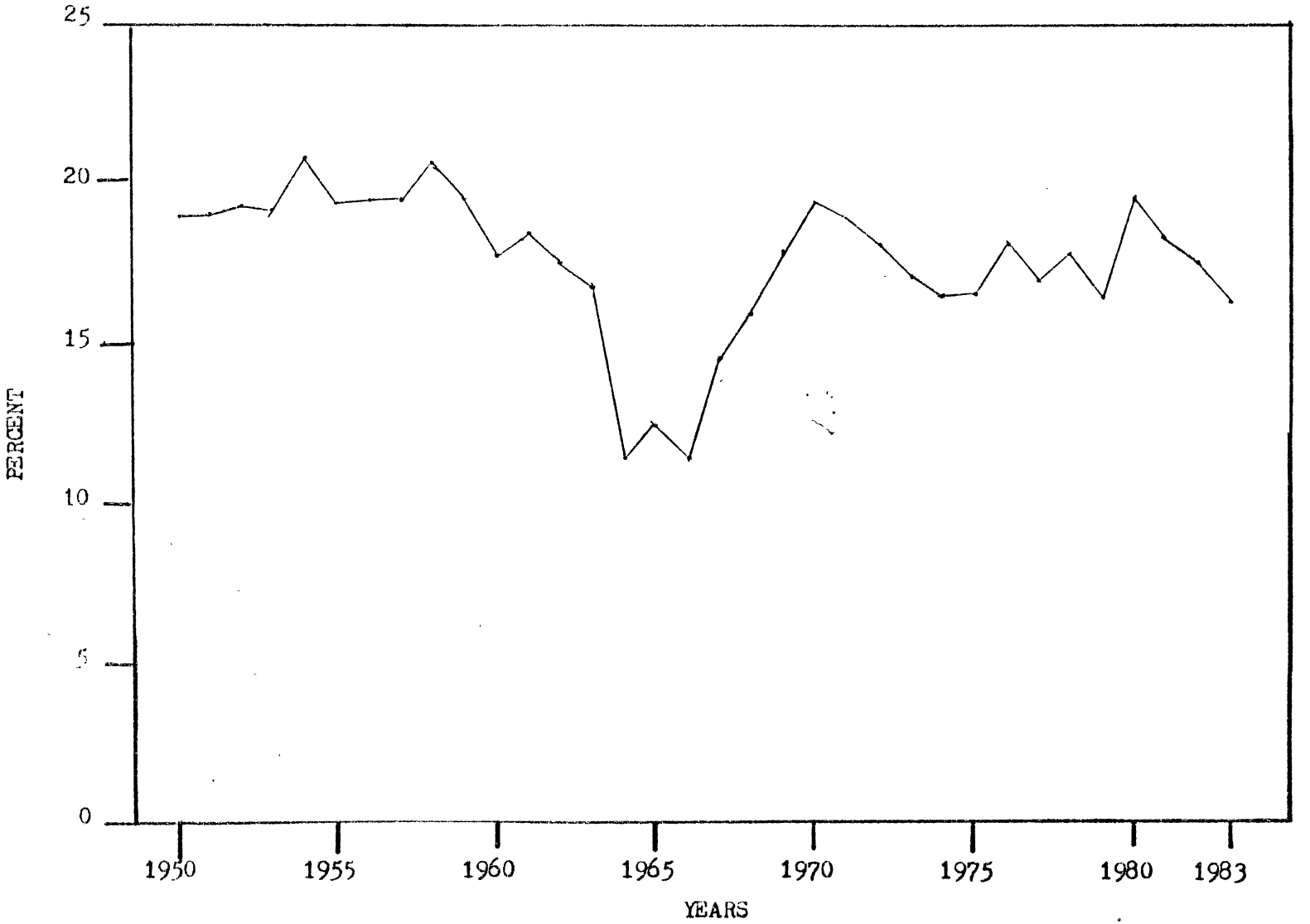


Figure 3. Percentages of Occurrences of the Red Hue for Each Year, 1950-1983

peak with higher percentages than any other color family. Twice during the 34 year period, almost one out of every four colors shown for that year was categorized as yellow red. From 1951 to 1967, yellow red showed three peak periods and fluctuated between 19 percent and 25 percent. After the 34 year high in 1965, the percent occurrence of yellow red in Vogue magazine began to drop until it reached a low of 10.5 percent in 1971. The findings indicated that the percent occurrence of yellow red was under 15 percent for six years, from 1968 to 1973. Then, in 1974, yellow red plateaued for six years, between 18.5 percent and 20 percent. The plateau ended in 1980, when yellow red dropped from 19.5 percent to slightly above 14 percent. Yellow red continued a decline for four years, from 1980 to 1983. In general, yellow red was shown more often in Vogue during the first one half of the 34 years and shown less frequently during the second half of the time period under study.

Yellow

The hue family of yellow included all colors with notations of 2.5YR, 5.0 YE, 7.5YE and 10YE. The colors ranged from golds and beiges to yellows with a greenish cast.

Figure 5 represents the percentage of occurrence of yellow in Vogue magazine. The highest percentage of occurrence of yellows during the 34 years under study was during the 1960's and the early 1970's. Between 1950 and 1954, the percentage of occurrence of yellow fluctuated between nine and 12 percent. The percentage of occurrence of yellow dropped to slightly above five percent in 1956 and 1957.

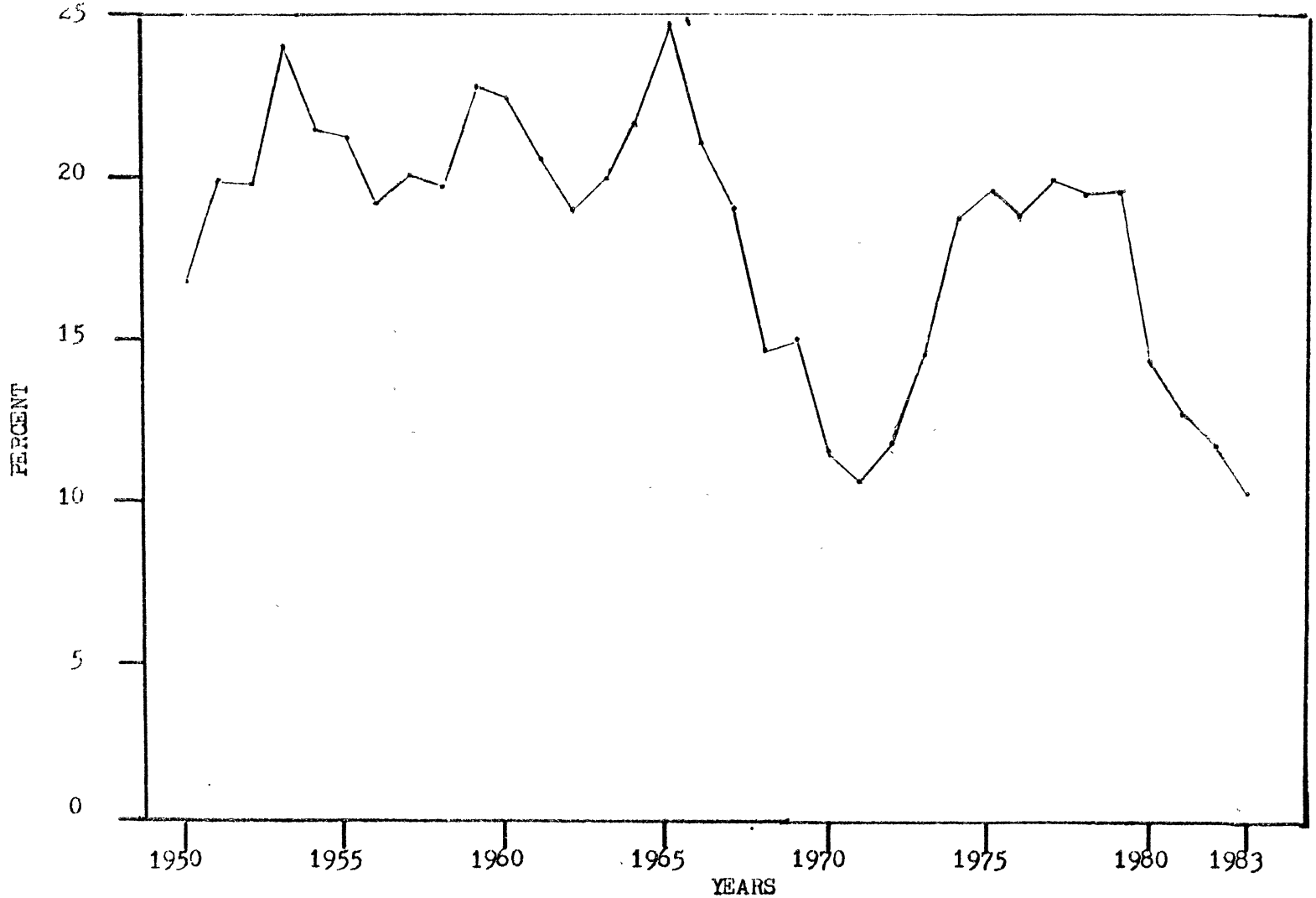


Figure 4. Percentages of Occurrences of the Yellow Red Hue for Each Year, 1950-1983

From 1958 through 1966, a gradual increase in the number of yellows being shown in Vogue was evident. This appeared to be the incline stage of the color cycle. Examination of the findings showed the highest percent occurrence of yellow for the 34 years was in 1966, at 17 percent. In 1967, the percentage of occurrence of yellow decreased. This appeared to be the decline stage of the color cycle. Another low occurred in 1970 with a percent of slightly above nine. Four years, from 1970 to 1973, was a time period that yellow was increasingly featured in Vogue. The percentage of occurrence of yellow again peaked in 1973, at 15 percent, and began a gradual decrease until it reached a low of five percent in 1982.

The most evident color cycle of yellow took about 14 years, from 1957 to 1970. The second cycle, which began in 1971, may not have ended in 1982 or 1983, but the length of time for this cycle was approximately 12 or 13 years. It was of interest to note, that for the first color cycle, the peak occurred in the latter one-third of the cycle. For the second color cycle, the peak occurred in the first one-third of the cycle. Thus, the highest percent occurrences for each cycle were separated by only eight years.

Green Yellow

Green yellow colors ranged from olive greens to lime greens. The color notations of 2.5GY, 5.0GY, 7.5GY and 10GY were included in this family (Figure 6).

Green yellow hues were never shown extensively in Vogue magazine. From 1950 to 1953, green yellow gradually declined from two percent to

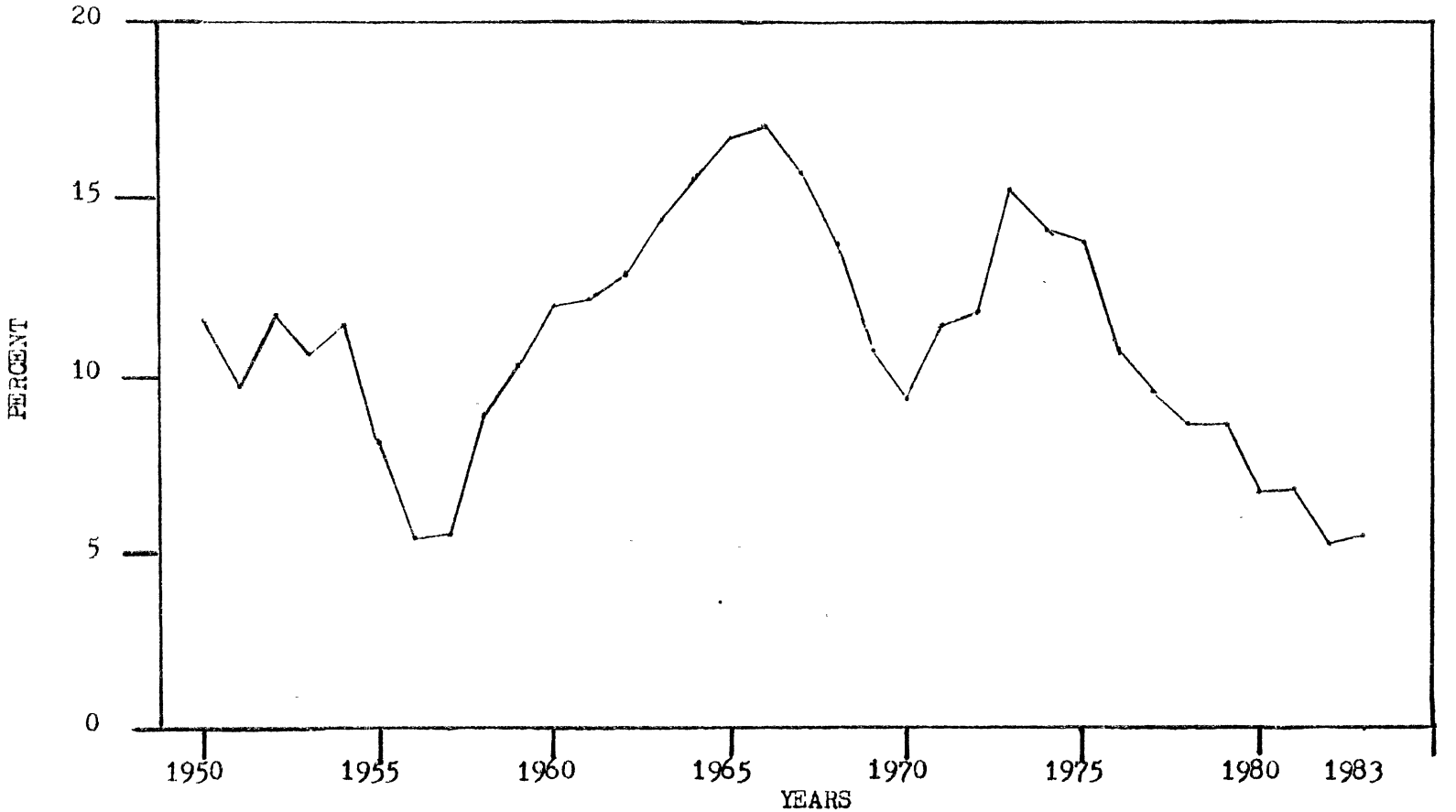


Figure 5. Percentages of Occurrence of the Yellow Hue for Each Year, 1950-1983

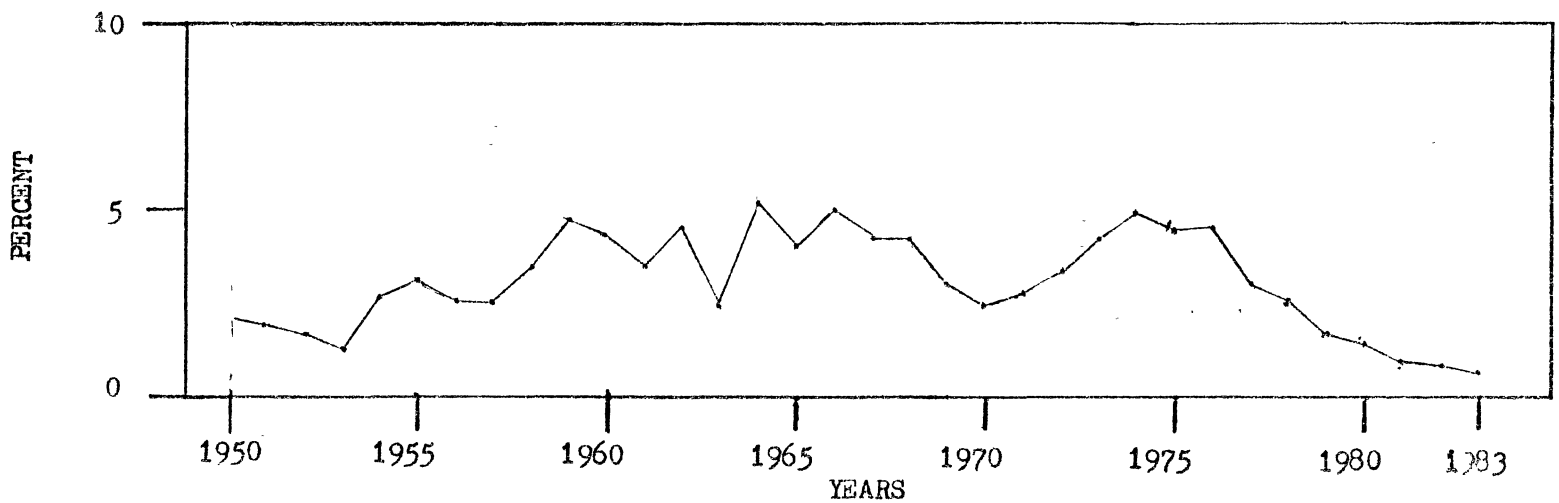


Figure 6. Percentages of Occurrence of the Green Yellow Hue for Each Year, 1950-1983

one percent. From 1959 to 1969, green yellow fluctuated between three percent and slightly above five percent. The year, 1970, may have marked the beginning of a cycle lasting approximately 14 years, or until the count ended in 1983. The highest percentage of occurrence of green yellow was in 1974 at five percent.

Green

The green family included the notations of 2.5GR, 5.0GR, 7.5GR and 10GR. Yellowish greens, emeralds and kelly greens were included in this hue family.

Green appeared to be consistant in the percent occurrences for the 34 year time span (Figure 7). The amount of green shown did not fluctuate more than two percentage points above or below three percent except for a two year period in 1963 and 1964.

Blue Green

The color, blue green, included the notations, 2.5BG, 5.0BG, 7.5BG and 10BG (Figure 8). These colors included turquoises and teals.

The findings indicated that blue green, as a color in women's apparel, was never widely featured in Vogue during the 34 years of this study. However, blue green apparel appeared to be shown more frequently during the 1950's than any other time period in the study. The peak year for the 34 year time span occurred in 1956 with four and one half percent. After 1956, the frequency of blue greens declined to one percent in 1959 and 1960. From 1961 to 1983, the number of

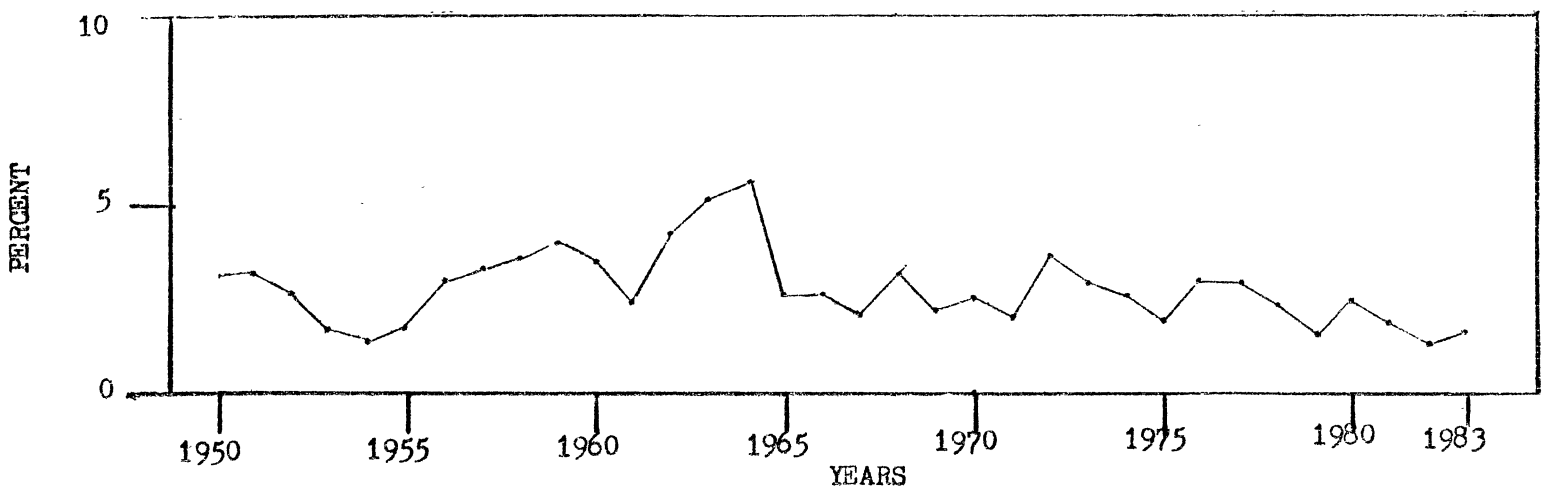


Figure 7. Percentages of Occurrence of the Green Hue for Each Year, 1950-1983

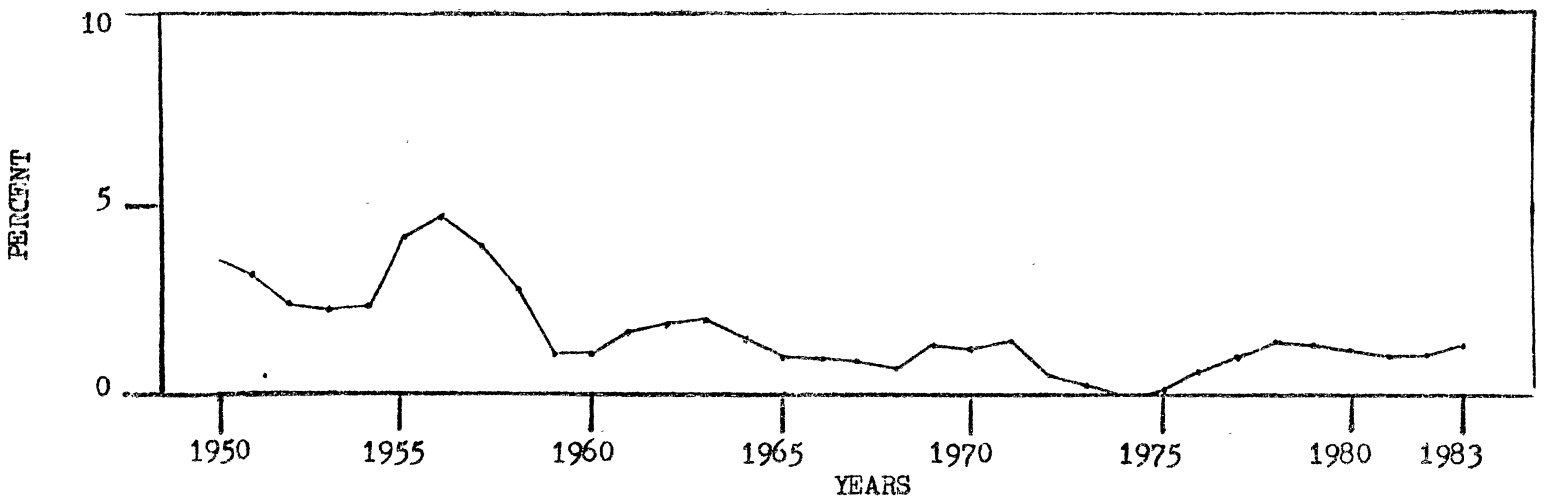


Figure 8. Percentages of Occurrence of the Blue Green Hue for Each Year, 1950-1983

blue greens featured in Vogue remained between zero and two percent, with no blue greens being shown in the 1974 issues of Vogue magazine.

Blue

This hue family included the four categories of blue, 2.5BL. 5.0BL, 7.5BL and 10BL. The colors of these four categories ranged from blues with greenish casts to blues with purplish casts.

Examination of the data (Figure 9) suggested the hue family of blue underwent a change from a more distinct, "up and down" pattern to a static pattern. Each progressive cycle showed reduced differences between the high and low percentage of occurrence. That is, the distance between the high and low for a given cycle was shorter than the previous cycle.

As shown in Figure 9, the first cycle began in 1952 and ended in 1961. This ten year cycle peaked in 1957, at over ten percent. The low for the cycle occurred in 1961 at four and one half percent. The time length for the second cycle to occur took six years, from 1962 to 1967. The cycle peaked in 1964, at nine percent. The low for the cycle was three and one half percent in 1967. The third cycle was more difficult to distinguish, but the researcher studied Figure 9 and suggested the beginning of the cycle to be 1968 and the cycle's end to be in 1976. The high for this nine year cycle occurred in 1970 at eight percent. The low for the cycle occurred in 1976 at almost four percent. In summary, the first cycle peaked at ten percent, the second cycle peaked at nine percent, and the third cycle peaked at eight percent. From 1979 to 1983, the color, blue, varied between

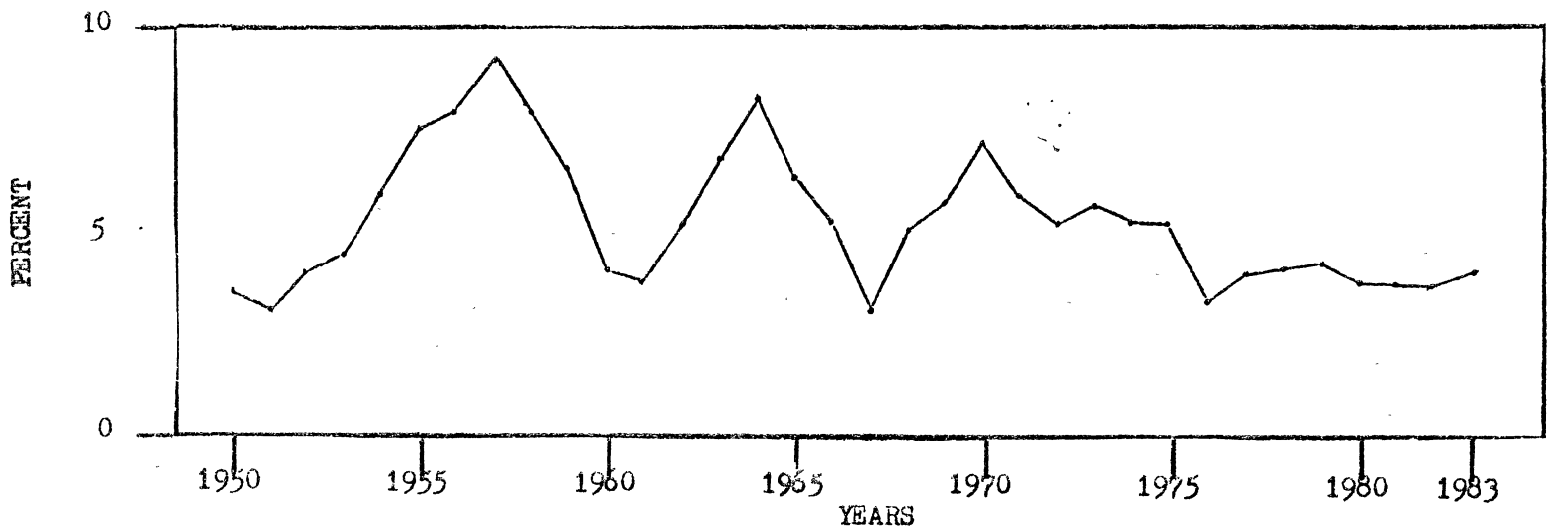


Figure 9. Percentages of Occurrence of the Blue Hue for Each Year, 1950-1983

four percent and five percent.

Purple Blue

The purple blue hues (Figure 10) constituted a grouping of the color notations 2.5PB, 5.0PB, 7.5PB and 10PB. The hues in this group ranged from bluish purple blues to purplish purple blues.

Clothing in Vogue magazine that contained the hue, purple blue, appeared more frequently during the first and last decade of the 34 year span and less frequently during the 1960's and early 1970's. In 1950, over 14 percent of all women's garments shown in Vogue contained the color, purple blue. During the following two years, the percentage of occurrence dropped by three, but rose again to the highest recorded peak of over 15 percent in 1956. After this 34 year high, the percentage of occurrence of purple blue in Vogue magazine began to decrease until it reached the lowest point, four percent, during the studied time of 34 years. The percentage of occurrence dropped to four percent twice—once in 1965 and again, nine years later, in 1974. After the 1965 low, the percentage of occurrence of purple blue in Vogue magazine increased to eight percent and then dropped back to four percent in 1974. Purple blue increased in percentage of occurrence until 1983, except for a two percent dip in 1978. In 1983, it reached almost nine percent, the third highest percent in the 34 year time period for the study.

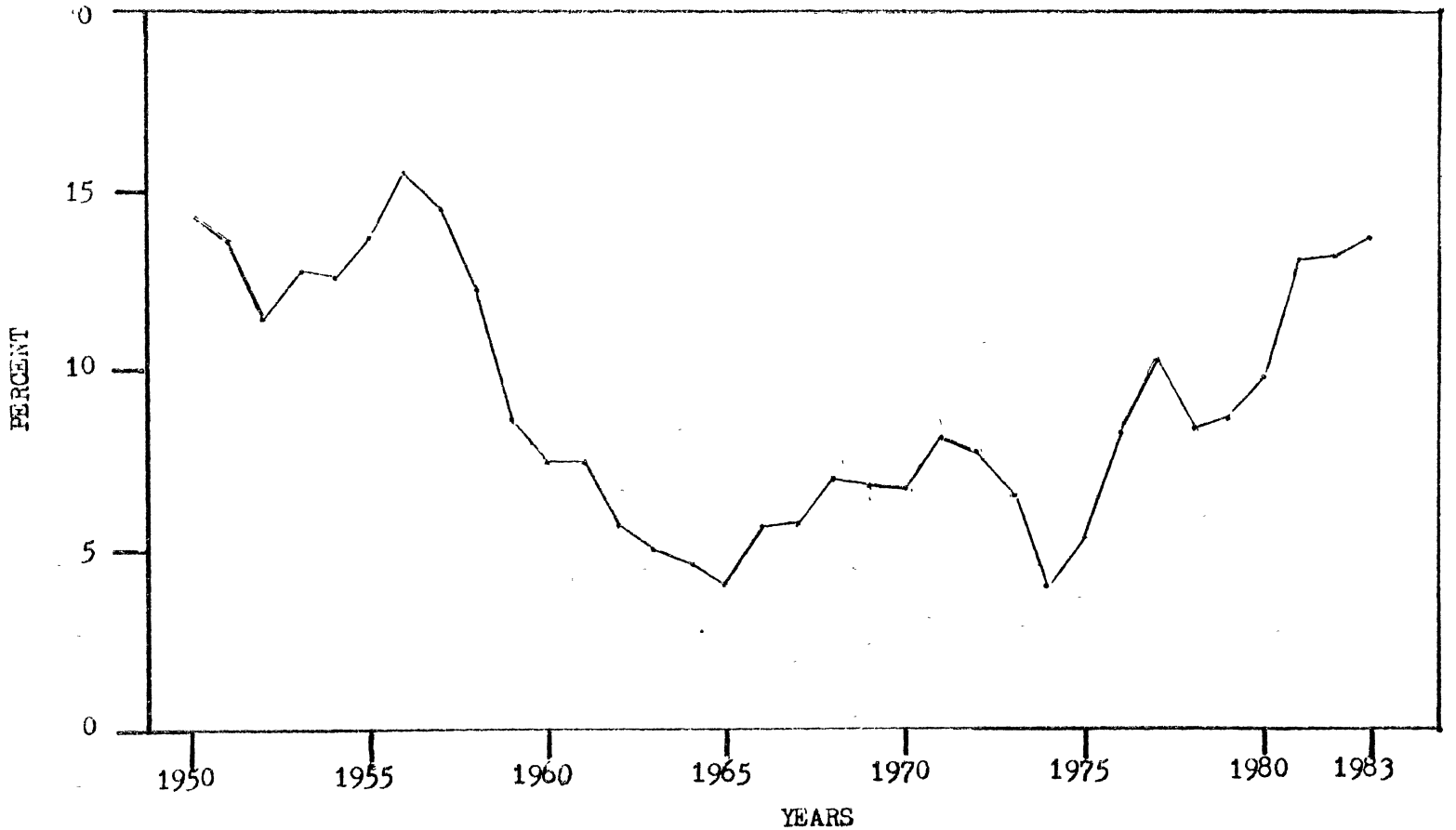


Figure 10. Percentage of Occurrence of the Purple Blue Hue for Each Year, 1950-1983

Purple

The color notations included in this hue were 2.5 PU, 5.0PU, 7.5PU and 10PU. The hues in this group ranged from bluish purples to reddish purples.

The percentage of occurrence of purple was not frequent in Vogue magazine (Figure 11). For most of the 34 years of the study, the percentage of occurrence for purple in Vogue magazine stayed below five. In 1950, the percent occurrence was slightly higher than five percent. After 1950, the percent decreased until 1957, when the percent dropped below one. In 1960, the percentage of occurrence reached a high of over four, and then dropped to less than one percent from 1963 to 1965. From 1966, the percentage of occurrence of purple garments shown in Vogue magazine gradually began to increase until 1981 when it reached the 34 year high of five and one half percent. The data from the final two years of the study revealed a slight decreased in the percentage of occurrence of purple garments in Vogue magazine.

Red Purple

Red purple included the color notations of 2.5RP, 5.0RP, 7.5RP and 10RP and consisted of colors ranging from deep wines to lavenders. Except for a few peaks during the 34 year period, the overall pattern of red purple appeared to gradually increase in the percentage of occurrence with which it was shown in Vogue magazine (Figure 12). The percentage of occurrence of red purple began at three and one half in 1950. A gradual increase occurred until 1960, when the percentage

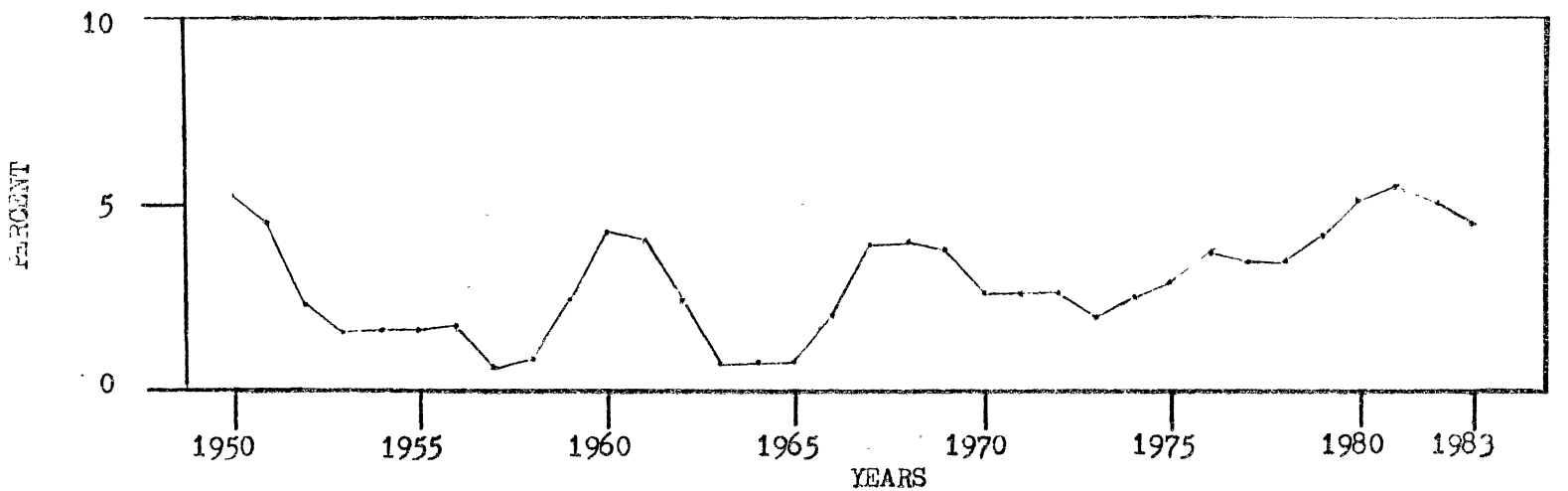


Figure 11. Percentages of Occurrence of the Purple Hue for Each Year, 1950-1983

of occurrence of red purple rose by three percentage points, dropped in 1961, and rose again to over seven percent in 1963. The five year period, 1964 through 1968, was a static time for the percent of red purple. By 1970, red purple climbed to eight percent, and fluctuated between seven and eight percent for six years. The percentage of occurrence dropped slightly to six percent in 1976, but peaked at over ten percent for the years, 1979 and 1980. These peaks were the highest recorded percentage of occurrences for red purple during the 34 years of the study. After 1980, red purple declined to a 1983 percentage of occurrence of seven and one half.

Neutrals

The neutrals, black, white and gray, constituted the largest grouping, appearing more frequently in the Vogue magazine during the study than any of the hues (Figure 13). According to the color notation used by the researcher, the colors of black, white and gray were classified as NT (neutral). Other colors, such as beiges or off whites, are sometimes considered neutrals, but were not considered neutrals in this study. The reason for this distinction was due to the fact that the Munsell system was the source used to record each color notation, and only black, white and gray were categorized as neutrals in the Munsell system.

Black

The neutral, black, was featured in Vogue between three percent and 15 percent (Figure 13). Black peaked moderately in 1953, de-

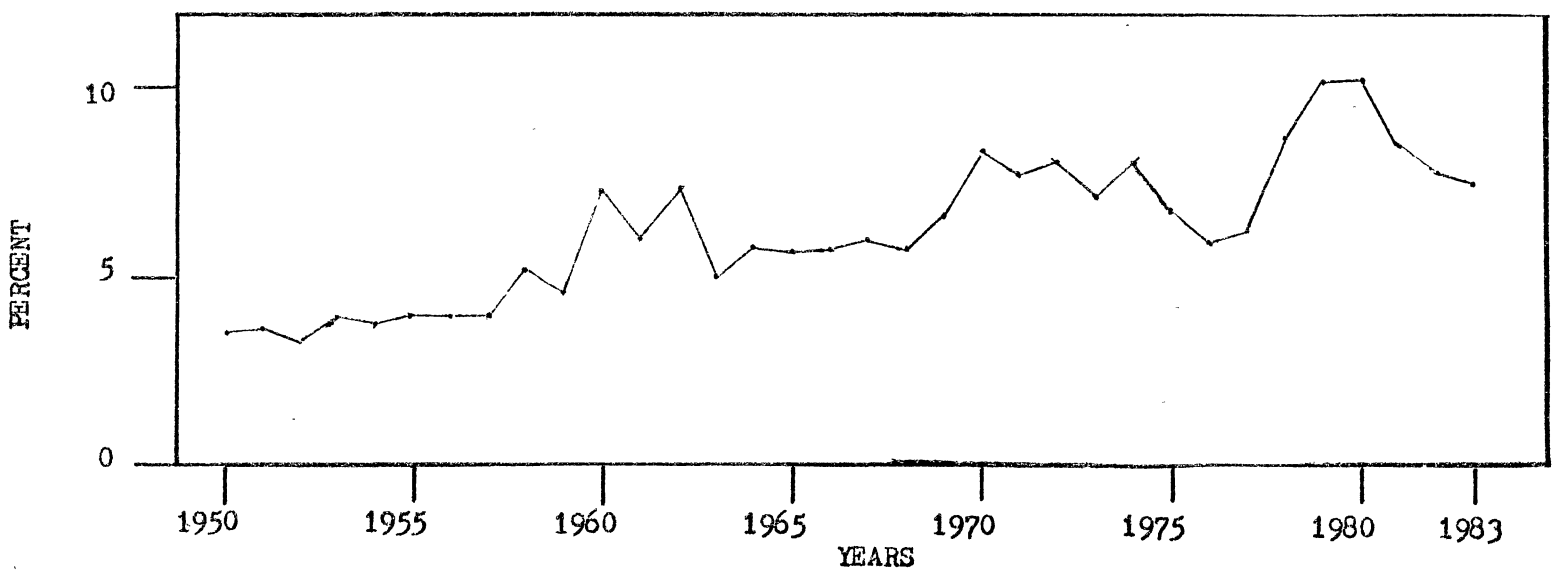


Figure 12. Percentages of Occurrence of the Red Purple Hue for Each Year, 1950-1983

creased slightly until 1958 and then began a lengthy ascent to a 1972 peak of ten and one half percent. After 1972, it dropped rapidly to a low of five and one half percent in 1975. From 1976 to 1983, the percentage of occurrence of black increased until it reached 15 percent. The only complete cycle visible in the 34 years of the study was recorded to be a 17 year cycle. This was longer than many cycles of the hues, which ranged between six and ten years.

White

White was shown in Vogue between three percent in 1950 and 18 percent in 1983 (Figure 13). White increased in percentage of occurrence during the 34 year time span of the study. Except for one three year group, the lowest percentages of occurrence between the peaks were always higher than the preceding year's low. In other words, although the percentage of occurrence of white did decline in some years, in general, it continued to be shown more frequently than in previous years. From 1950 to 1957, white slowly climbed from almost three percent to seven and one half percent. Then it dropped slightly until 1960. From 1960 to 1970, white climbed steadily up to a peak of 16 percent. White peaked again at 16 percent two years later. It remained between 14 and 16 percent until 1983 when it began to rise.

Gray

Gray followed a trend opposite that of black or white (Figure 13). The high for gray occurred in 1950, when it attained ten and one half percent. The remaining 33 years were the declining years for

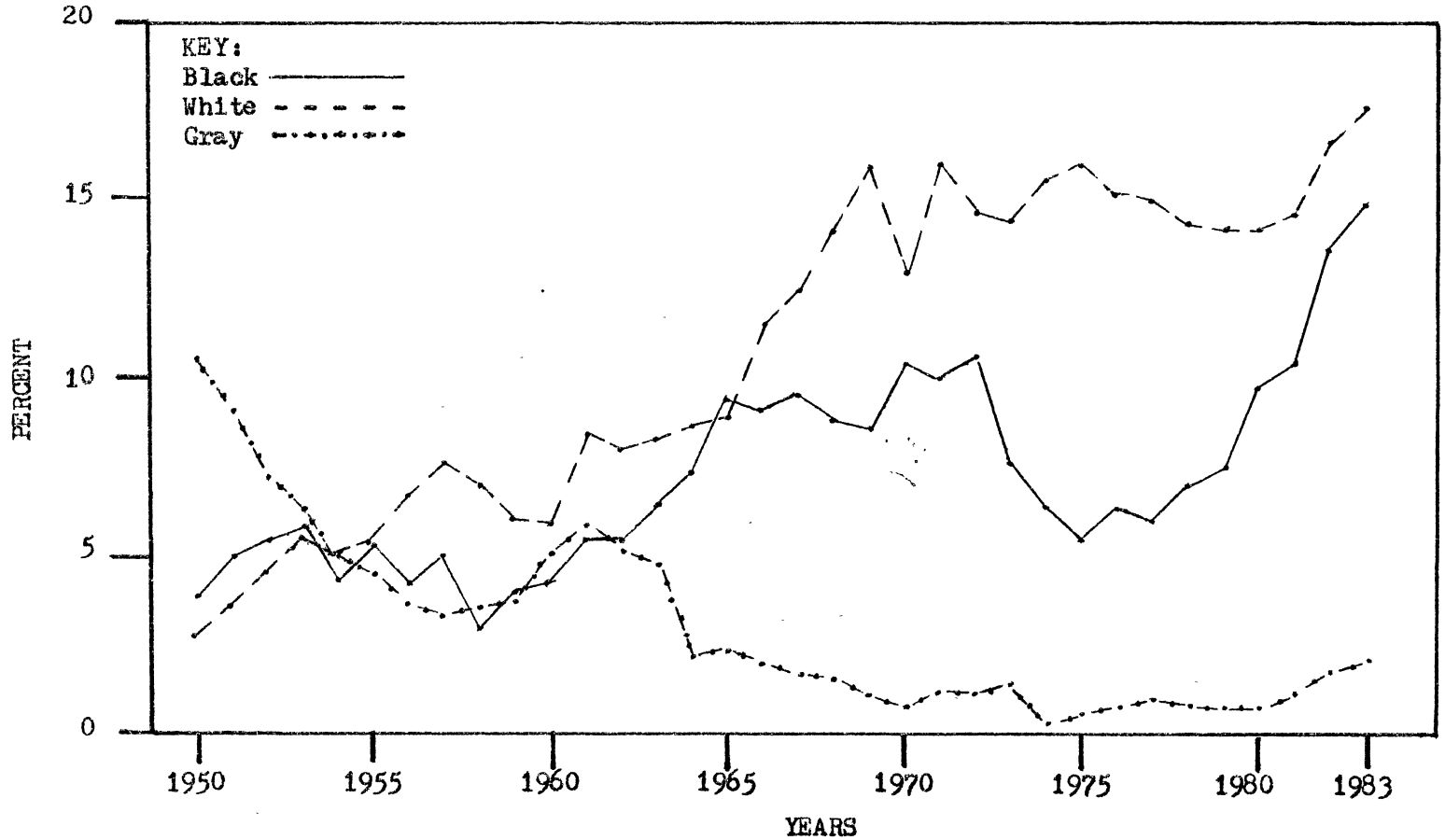


Figure 13. Percentages of Occurrence of the Neutrals, Black, White and Gray for Each Year, 1950-1983

gray. It did rise a few percentage points between 1958 and 1961, to a peak of almost six percent. Beginning in 1962, it continued to decline until it reached its lowest point of less than one percent in 1974. Since 1974, gray gradually increased in percentage of occurrence, but not by more than two percentage points. In 1983, gray had reached the two percent mark.

Color Cycles

Color cycles were not always clearly evident in the plotted data. The following discussion deals with only the most evident cycles of the hues. In the four instances where the color cycle was evident, the findings indicated the length of the color cycle varied by hues. Danger (1968) suggested that a color took ten years to cycle. The hues in this study that supported Danger's (1968) ten year cycle suggestion were the blue hue, with a ten year cycle, from 1952 through 1961, and a nine year cycle from 1968 through 1976. The purple hue, with a nine year cycle, from 1966 through 1974, also supported Danger's (1968) suggestion.

The findings from the yellow red hue family indicated one possible cycle (Figure 4). The cycle began in 1972 and continued for at least 12 years, to the end of the time period for this study.

The yellow hue family appeared to follow two cycles during the 34 year time period of the study (Figure 5). The first cycle began in 1958 and ended in 1970 for a 13 year cycle. The second cycle, which may have extended past the year of 1982, appeared to begin in 1971 and ended in 1982, for a 12 year time span.

Three possible color cycles were apparent in Figure 9, the plotted data of the blue hue family. The first cycle may have begun in 1952 and ended in 1961. This would have been a ten year cycle. The second cycle began in 1962 and ended in 1967, for a six year span. The third possible cycle was less evident, but appeared to begin in 1968 and ended in 1976, for a nine year period.

Figure 10, the plotted data of the purple blue hue family, appeared to have one visible cycle. The cycle began in 1966 and ended in 1974. This nine year cycle, may have been a part of a larger cycle, which began in 1966 and peaked in 1983, or sometime thereafter. Due to the lack of data after 1983, it was not possible to determine the actual peak or length of the larger cycle.

The findings for the purple hue presented one color cycle (Figure 11) which began in 1958 and ended in 1963. The six year cycle was small, because the highest percentage of occurrence of the cycle reached just over four percent, while the low percent was just under one percent.

The finding for the neutral, black, seemed to show one complete cycle during the 34 year time span (Figure 13). However, this cycle was not clearly delineated by the graphed findings. The cycle may have begun in 1959 and ended in 1975. If this were a cycle of the neutral, it lasted 17 years. The extent to which the graph (Figure 13) actually showed a cycle was questionable, because the cycle appeared to have two peak periods instead of one peak period.

The findings from this research indicated that colors with a higher overall percent for the 34 years of the study, appeared to be

more likely to show color cycles than those colors with the lower overall percents. The most shown hue in the 34 year time span was red, with an overall percent of 17.5. However, this was one exception to the generalization. According to the graphed findings, red did not show a cyclic nature, rather it fluctuated very little except during a four year period. The neutral, white, was a second exception to the generalization. Twelve percent of all of the colors shown in Vogue magazine were white. This percent was the third highest, but white never completed a cycle, as was evidenced in Figure 13.

Complementary Colors

Complementary colors are the two colors opposite each other on the color wheel (McJimsey, 1973). Three sets of color complements were examined. These sets included red/green colors, yellow/purple colors and yellow red/blue colors. One set of split complements were also examined. A split complement is a color and the adjacent color on either side of its complement (McJimsey, 1973). Each color family contained all color notations previously specified.

The warm color, red, was shown more frequently in Vogue magazine than its cool complement, green. Warm, yellow red hues were shown more frequently in Vogue than the cool, blue complementary hues. Warm yellow hues also appeared more frequently in Vogue than the cool complements of purple hues.

The percentages of occurrence of red, except for a three year span, were always over ten percentage points higher than the percent of the complement, green. In 1964, the red hue dropped to its lowest

point during the 34 year time span of the study (Figure 3) and green rose to its highest percent during the same time period of approximately six percent (Figure 7). This reversal in percentage of occurrence supported the theory presented by Danger (1968). He suggested that the change process of a color gradually moved from a color to its complement.

The yellow and purple hues were also compared (Figures 5 and 11). Differences between the two percentages of occurrence for yellow and purple varied from zero to 15 percent. The greatest variation was in the mid 1960's when the yellow hue was in the 15 percent range and purple was under three percent. The least variation in percent occurred in the 1980's when the yellow hue and the purple hue were both between four and six percent.

The third set of complementary colors were yellow red (orange) and blue (Figures 4 and 9). No notable similarities or differences were evidenced by the graphed findings. However, as with the other two sets of complementary colors, the findings showed the warm hue, yellow red, always had higher percentages of occurrence in Vogue than its cool complement, blue.

Yellow and purple blue appeared to be the only set of split complements with clearly evident opposite trends, which would support the suggestion made by Danger (1968) that the popularity of colors gradually traveled from one color to its complement. The data showed that the yellow and purple blue hues followed opposite trends in the percentages of occurrence. The color cycles for both hues lasted similar lengths of time, but when one color was in the peak of a

cycle, the other was at a low in a cycle.

Adjacent Colors

Adjacent colors are those colors next to each other on the color wheel (McJimsey, 1973). The graphed data evidenced that in some instances, the occurrence pattern for adjacent colors was similar. Danger (1968) suggested that the popularity of colors gradually changed from one color to its complement, because an immediate change was not feasible. For example, a change in color might proceed from a red to yellow red, to yellow, and continue until it moved to the complement of red, which was green.

Figures 3, 4 and 5 illustrate the data for the hue families red, yellow red and yellow. The graphed findings of the three adjacent colors evidenced several possible color trends. Red and yellow red followed a similar path for the first 12 years. In 1964, the percent of red shown in Vogue dropped as sharply as the percent of yellow red increased. After this opposite trend, the two hues reversed percentages of occurrence with red showing an increase and yellow red a decrease. The trend toward similarity between red and yellow red began in 1973 and continued through 1983. Both hues dropped in percentage of occurrence during the last years, but the decrease for yellow red hue began one year earlier than the decrease for the red hue.

The hues, yellow red and yellow (Figures 4 and 5) showed similar trends for about two thirds of the 34 year time span of the study. The first 12 years did not show any similarities, but the remaining 22

years showed the two hues to follow similar patterns. Yellow red peaked in 1965 and yellow peaked in 1966. Although these peaks were at different percents, Vogue seemed to be featuring them at the same time, with yellow being shown to a lesser degree than yellow red. After the mid 1960's peak, the frequency of appearance for both colors decreased. Yellow's low occurred in 1970 and the low percent for red came in 1971. The peak for the second cycle of yellow occurred in 1973, then yellow dropped in frequency through 1982. Yellow red peaked in 1975, but continued to stay on a plateau for five years, decreasing in percentage of occurrence in the Vogue magazine.

Comparison of the data for these three hues in Vogue magazine supported the statement by Ingersoll (1965) that a red hue was a more "staple" color. than yellow red or yellow. Yellow red and yellow might have been classified as "high style" colors (Chambers, 1951), because of their more extreme changes in the yearly percentages of occurrence within the color patterns.

On a six hue color wheel, including only primary and secondary colors, the hues, blue and purple, would be adjacent colors (McJimsey, 1973). These colors (Figures 9 and 11) also followed nearly opposite trends. When one color was in the peak or ascent stage of its cycle of percentage of occurrence in Vogue, the other color would be in the decline stage of the cycle.

Warm and Cool Colors

For the most part, Vogue showed warm colors, such as red, yellow red and yellow, more often than cool colors. This was especially true

during the first ten years of the study. One exception to this was the cool color, purple blue, which had high percentages of occurrence in Vogue magazine. Gray also began as a widely featured color, but immediately declined in percentages of occurrence. The data for the next ten years of the study indicated that warm colors were still popular in Vogue, but cool colors and black and white were gaining in percents in Vogue.

The remaining 14 years of the study showed the percents of colors in general to be declining in the Vogue photographs, but the neutrals, black and white, were being shown more frequently. All of the warm colors, red purple, red, yellow red, yellow, and green yellow showed declining percents, and some of the cool colors showed increased percents. The cool colors included blue green, blue, purple blue and purple.

Values

The values for the color notations were examined and combined into two groups. The first group contained colors with values from two to five. Colors with these values represented the darker colors in Vogue magazine. The second group contained colors with values from six to nine. Colors with these values represented the lighter colors in Vogue magazine. Unlike the hues, the values from the monthly issues of February and August, were graphed separately, because examination of the percentages of occurrence showed a large difference between the colors in the February issues and the colors in the August issues of the Vogue magazine. The February issues of Vogue

represented the Spring apparel colors (Figure 14), while the August issues of Vogue represented the Fall apparel colors (Figure 15).

In the February (Spring) issues, the lighter values, six through nine, appeared more frequently than the darker values. This trend was evident from 1950 to 1956. The late 1950's and early 1960's showed a variety of dark and light colors for Spring fashions in Vogue magazine. In the year, 1965, Vogue reduced the percentage of occurrence of dark colored garments shown in the magazine to a 34 year low of 29.5 percent. The magazine also did not show an increase in pastel colors. This lack of color was due to the increase in the percentage of occurrence of black and white. The percentage of occurrence of darker values began to increase after the 1965 low, while the percents of the lighter values shown in Vogue began to decline. These lighter values reached a 34 year low of 28.5 percent in 1972. At the same time, in 1972, the group of darker values had peaked in their cycles. From 1972 to 1975, the pastel colors were shown more often in Vogue and the darker shades of colors were shown less often. After another peak of the lighter values and after a low period for the darker values, the percentage of occurrence of the two groups of values in Vogue were similar. By 1983, both shades and tints of colors reached a percentage of occurrence of 32. It was important to note, that while shades and tints of colors were leveling off, the neutrals of black, white and gray were increasing in percentages of occurrence in Vogue.

In general, Spring colors over the 34 year time span began as mostly pastels and continued as pastels through the early 1950's. In

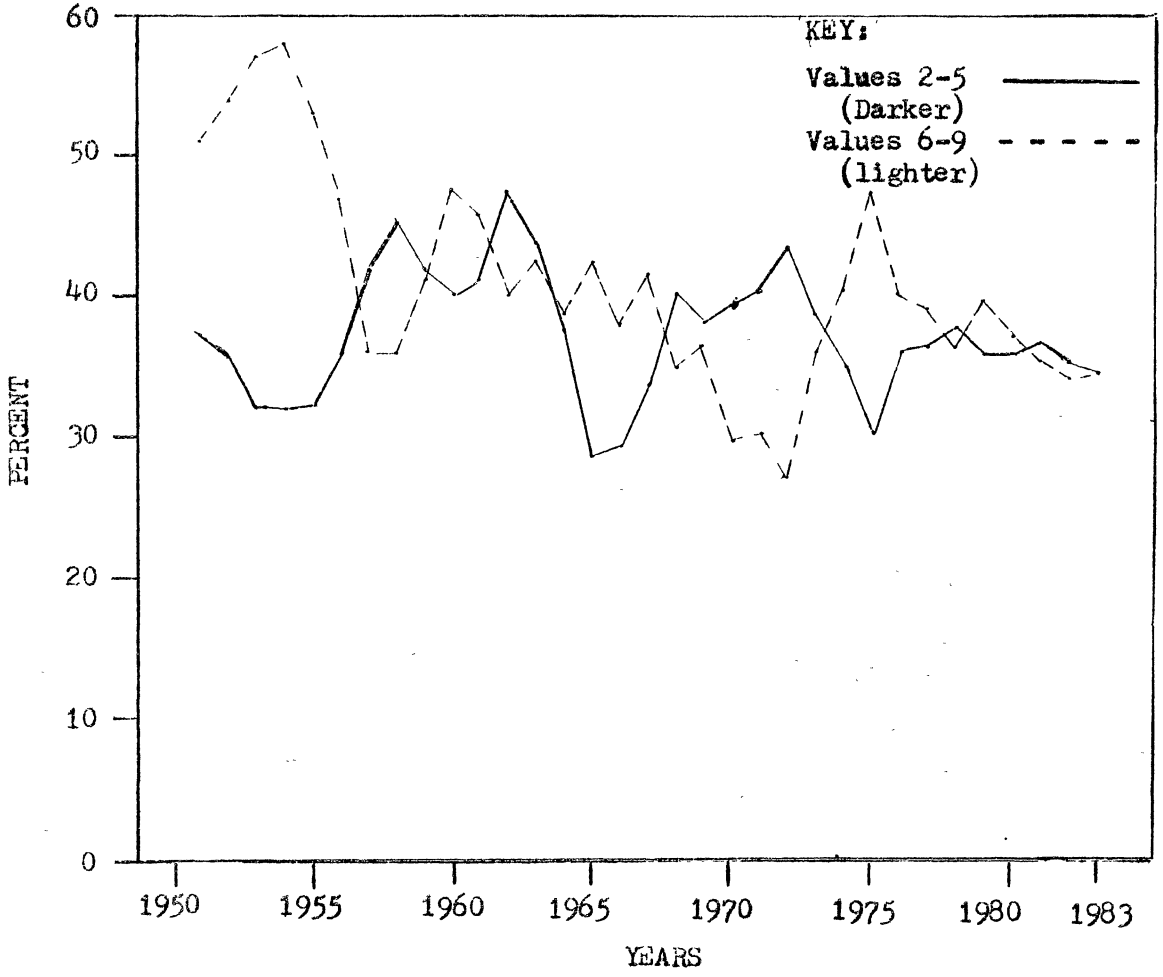


Figure 14. Percentages of Occurrence of the Values for Each Year, Spring Season, February Issues, 1950-1983

the late 1950's through 1964, both shades and tints of colors were popular for Spring fashions in Vogue. From the late 1960's through the early 1970's the trend for colors in Vogue changed from tints to shades and back to tints. Then in the late 1970's through 1983, both shades and tints of colors were popular for Spring fashions in Vogue.

Figure 15 represented findings for the Fall color values in the August issues of the Vogue magazine. The darker values, of two to five, appeared more frequently in Vogue during the first thirteen years of the study. The percent of darker values reached 76 percent in 1956, while the percent of pastel colors shown in the Fall issues of Vogue reached only four percent in 1956. According to the graphed data, both tints and shades of colors were being featured in similar amounts during the late 1960's and early 1970's. In 1973, the darker values of two through five began to increase in frequency in 1975.

In general, Fall colors for the 34 year time span began as mostly dark shades of colors and continued this pattern through 1963. In the remaining 1960's through the early 1970's the popularity of fashions in Vogue changed from tints to shades and back to tints. Then, in the late 1970's through 1983, shades of colors became more prevalent in Vogue magazine than did tints of colors.

Chromas

The chroma of a color refers to the brightness or dullness; the intensity of a color (Munsell, 1946). The chromas for both of the months of color were examined and combined into two groups. Group One contained chromas from one to five and represented the less intense

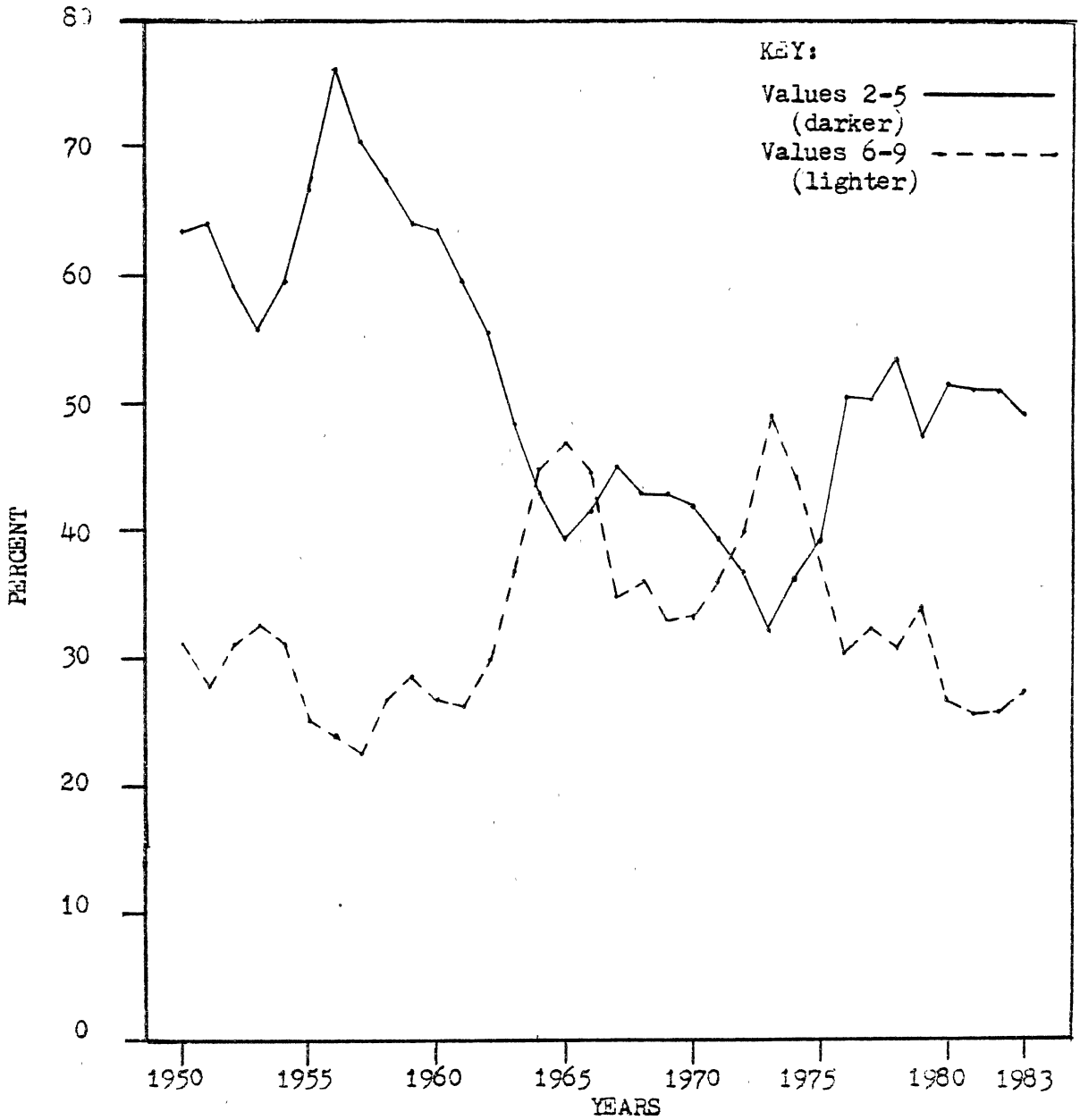


Figure 15. Percentages of Occurrence of the Values for Each Year, Fall Season, August Issues, 1950-1983

colors in the February and August issues of the Vogue magazine. Group Two contained colors with chromas from six to sixteen and represented the more intense, bright colors in Vogue magazine. Both the February and August issues of Vogue magazine were combined to increase the sample size, which clarified the graphed color patterns.

The graphed data of chromas for both months by year are given in Figure 16. Except for a period of four years in the late 1960's and 1970, the less intense chromas dominated the Vogue magazine fashions. The 34 year high for the less intense chromas occurred in 1954, with a percentage of occurrence of 58. In this same year, the more intense chromas reached a low of 26 percent. Group Two, the more intense chromas (six through sixteen) increased in percentage of occurrence in Vogue during the late 1950's. After this low, the more intense chromas peaked in 1958 at 43 percent, while the less intense chromas reached a low period in 1957 of 43 percent. From the late 1950's to 1970, the difference between the two groups of chromas decreased, with the least difference between the percentage of occurrence in the late 1960's. The early part of the 1970's decade showed a decrease in the percents of bright colors in the Vogue magazine. In contrast, the less intense color were shown more frequently. In 1975, the duller colors reached a high of 56 percent in Vogue. In the same year, the bright colors, which had been dropping in percent, reached a 34 year low of 22 percent. After the 1975 extremes, the chroma percents began to level off, but still hovered near the extreme low and high percents.

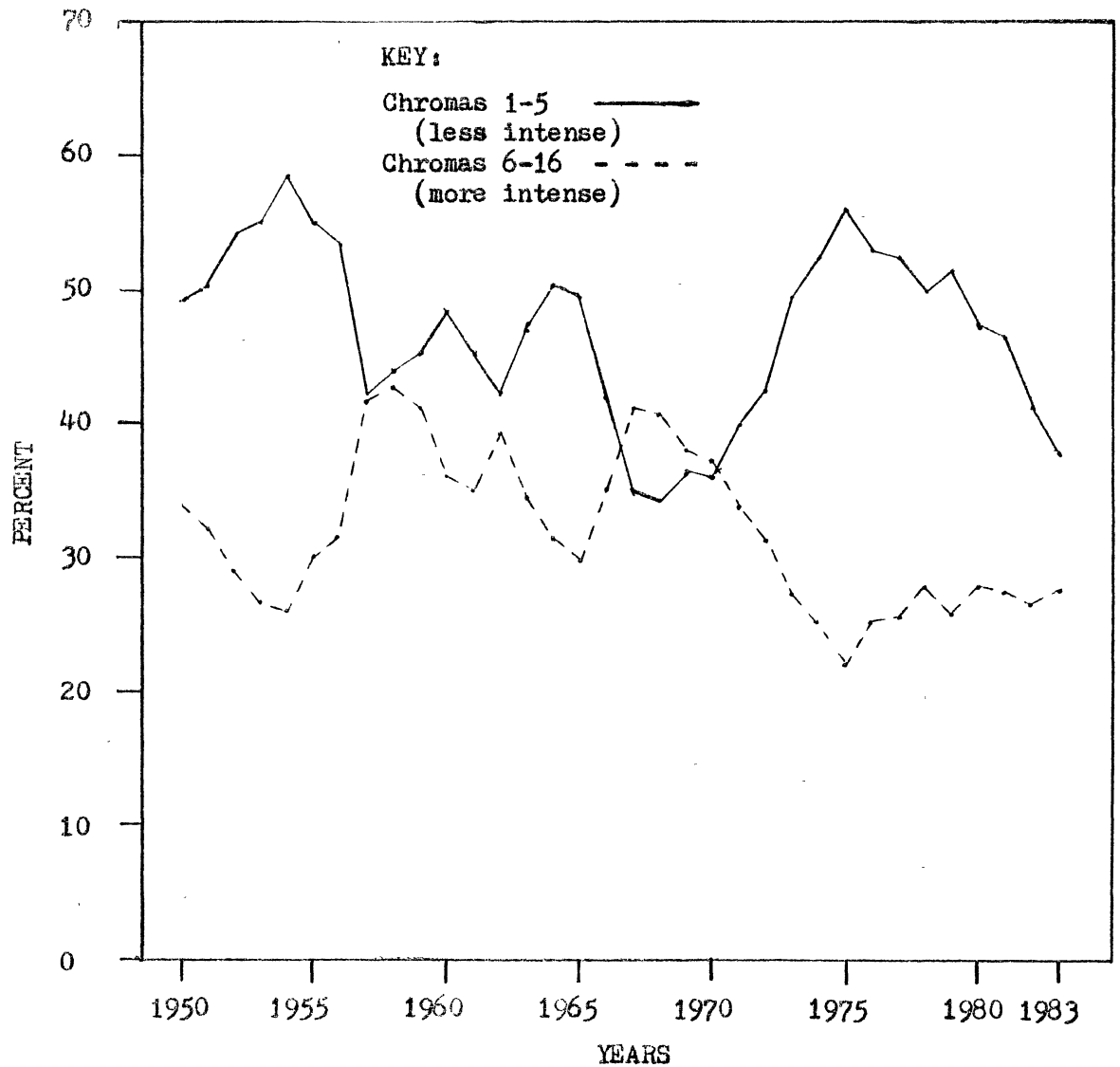


Figure 16. Percentages of Occurrence of the Chromas for Each Year, 1950-1983

Discussion

One theory on the popularity of red ("Understand Color," 1959) suggests that the red hue virtually disappeared after a war because of the trauma associated with blood. After the trauma was relieved, red became popular again. The data in Figure 3, beginning in 1950, showed that red did not drop in percentage of occurrence in Vogue magazine. However, World War II ended in 1947, and red may have already become popular again. The Korean War lasted from 1950 through 1953, but the percentage of occurrence of red from this study appeared to be stable during the four year time span. During the years, 1963 through 1966, the findings did show a drop in the percentage of occurrence of red apparel in the Vogue magazine. At this time, the Vietnam War was in action, and may have been part of the reason for the decline in percents of red in the Vogue magazine.

David Nemerov of Russek's Fifth Avenue suggested that the mood of the people influenced the amount of black apparel that was purchased (Chambers, 1951). When the color of apparel centered around black, a somber mood was over the people. The data obtained from Vogue magazine (Figure 13) indicated that during the recession of the 1970's, black was declining in percentage of occurrence. The percentage of occurrence of black shown in Vogue reached a peak in 1972 at ten and one half percent, but decreased in percentage of occurrence until 1975 when it reached a low in the cycle at five and one half percent.

Although the economy continued to improve through 1983, Vogue did not reduce the amount of black apparel it featured, as would have

supported Nemerov's (Chambers, 1951) theory. Rather, Vogue continually increased the amount of black apparel shown through the 1983 seasons.

The values for the majority of Spring colors shown in the February issues of the Vogue magazine were classified in group two, which contained the light values or pastel colors (Figure 9). However, from 1968 through 1973, the darker values had higher percentages of occurrence than the lighter values. This was a change from the general characteristic of Spring colors in the Vogue magazine to be the lighter values. This may have represented the social upheavals of the 1960's and the 1970's.

The values for the majority of Fall colors shown in the August or Fall issues of the Vogue magazine were classified in group one, which represented the dark values or shades of colors (Figure 15). However, from 1964 through 1975, the differences between the percentages of occurrence of the lighter and darker values decreased. Two, three year groups, from 1964 through 1966 and 1972 through 1974, showed the percentages of occurrence of lighter values were higher than the percentages of occurrence of the darker values.

These changes from tints to shades for the colors shown in the August issues of the Vogue magazine were similar to the changes in the February or Spring issues of the Vogue magazine during the same years (Figure 14). These value changes may have mirrored the social upheavals of the times.

Faber Birren (Danger, 1968) suggested that deep colors were declining in popularity from 1954 through 1964 (see Figure 2). His

theory was supported by the data from the Fall or August issues of the Vogue magazine (Figure 15) which indicated that the darker values began to decline in percent from a 1955 high of over 75 percent to a 1965 low of under 40 percent.

The chromas for the majority of colors shown in the February and August issues of the Vogue magazine were classified in Group One, which represented the less intense colors (Figure 16). However, from 1957 through 1970, the differences between the percentages of occurrence of the less intense (duller) colors and the more intense (brighter) colors in the Vogue magazine decreased. This pattern in Vogue may have mirrored the social changes, which included the hippi movement and psychedelic colors. The findings from this study supported the suggestion by Faber Birren (Danger, 1968) that bright colors were increasing in popularity from 1954 through 1964 (see Figure 2).

In 1975, the less intense colors reached a high of 56 percent in Vogue (Figure 16). In the same year, the bright colors, which were decreasing in percentages of occurrence, as shown in the Vogue magazine, reached a 34 year low of 22. These extremes may have mirrored the deep economic recession in which the United States was involved. The mood of the country might have been reflected in the fashions in Vogue magazine.

The recession lessened in degree after the early 1970's, however, it was considered to still have an effect on the economy during the first Reagan administration in the early 1980's. The researcher in this study predicts that the pattern that chromas will follow in the

remaining years of the 1980's decade will be a tendency for the more intense chromas to increase in popularity as the economy improves.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

The study investigated if a pattern existed in the use of color for women's fashions from 1950 through 1983 and the relationship between the use of color and social and economic events of the times. Vogue magazine was chosen as the source to use for collecting the data. Each color data entry consisted of a hue, value and chroma (Munsell, 1946). The three components were plotted independently of each other. The findings for each hue, value and chroma were examined for possible patterns and social or economics relationships.

Summary of Procedures

In order to meet the first objective, the colors for women's clothing for each year from 1950 through 1983 were examined in the February and August issues of the Vogue magazine. The colors presented in Vogue magazine were classified according to the Munsell System of Color Notation (1946). With this system, each color was identified by hue, value and chroma. The color data from women's apparel were collected and graphed over time to determine if color cycles existed.

The apparel items from photographs in Vogue magazine that were used in the study were coats, jackets, sweaters, skirts, blouses, pants, dresses and all other forms of outerwear. The items not

counted were accessories, fur coats, lingerie, sleepwear, robes, children's wear and men's wear.

The data obtained through examination of color photographs in the Vogue magazine were recorded and key punched for processing. The data frequencies were determined and percentages of occurrence for each group of hues, values and chromas were calculated. The yearly percentages of occurrence for each color component, hues, values and chromas, were plotted independently to present the color occurrence patterns over the 34 year time span. Nineteen graphs were developed using the smoothing process (three year moving averages), which was a modification of the Richarson and Kroeber (1940) five year moving average smoothing process.

The second objective was to explore the possibility of a relationship between the popularity of hues, values or chromas and the social and economic events of the times. In order to meet the second objective, the findings were examined for possible indications of similarities between a color trend in the Vogue magazine and a social or economic trend or event. Findings from past research provided some of the bases on which this study's comparisons were made.

Summary of Findings

A total of 6550 usable colors appeared in the February and August issues of Vogue magazine from 1950 through 1983. Each usable color was numerically identified into one of eleven hue categories. The hue categories were red (RE), yellow red (YR), yellow (YE), green yellow (GY), green (GR), blue green (BG), blue (BL), purple blue (PB), purple

(PU), red purple (RP), and neutral (NT). Of the eleven categories, the neutral group appeared most often with a total frequency of 732 (26%) (Table I, Appendix B). Of the colors, red appeared most often with a total number of 440 (15.6%) (Table I, Appendix B) and blue green appeared least frequently with a total number of 50 (1.8%). These data are given in Table I (Appendix B). Examination of the graphs of the percentages of occurrence indicated that warm colors appeared more frequently in the color photographs in Vogue magazine for the entire 34 year span of the study, but particularly during the first 17 years. The highest percentages of occurrence of black and white occurred in the latter one half of the 34 year time span.

Examination of the data indicated that there was a general trend for lighter values to be featured in the Spring, and the darker values to be featured in the Fall issues of the Vogue magazine. However, over 40 percent of all values for the February (Spring) or August (Fall) issues were contained within the values of four through six.

The values for each of 6550 colors and neutrals were categorized into two groups for each monthly issue. These groups included darker values (two through five) and the lighter values (six through nine) in the February (Spring) issues of Vogue; and darker values (two through five), and lighter values (six through nine) in the August (Fall) issues of Vogue.

During the 34 year time span of the study, the largest percentage of occurrence of values in the February issues of the Vogue magazine was in the category of values (six through nine) at 39 percent. However, the darker values (two through five) in the February issues of

Vogue were close at 37 percent. The value of five had the highest percentage of occurrence of all the values (two through nine) in the February (Spring) issues of Vogue magazine, while the value of two had the lowest percentage of occurrence of all the values in the February issues.

During the 34 year time span of the study, the largest percentage of occurrence in all of the August issues of the Vogue magazine was in the darker values (two through five) at 52 percent. The lighter values (six through nine) constituted 30 percent of the colors in all the August (Fall) issues of Vogue magazine. The value of four had the highest percentage of occurrence of all the values (two through nine) in the August (Fall) issues of the Vogue magazine, while the value of nine had the lowest percentage of occurrence of all the August (Fall) color values.

The February and August chroma data were combined into one data set due to the small sample size. The chromas for each of the colors or neutrals were categorized into one of two groups. Group One contained chromas from one through five, and Group Two contained of the chromas from six through sixteen. Overall, the first group of chromas (one through five) appeared more often than the more intense chroma group. However, from 1967 to 1970, Group One decreased in percentages of occurrence. At that same time, Group Two increased in percentages of occurrence.

A complete cycle was not apparent within the graphed data for each hue, value or chroma. This may have been due to the fact that

the 34 time span was a limiting factor. The graphs that did show evidence of cycles showed variations in the length of the cycles. In general, the findings showed that the graphs of hues containing the higher percentages of occurrence had longer cycles than the graphs containing the hues with the lower percentages of occurrence. The findings of the study suggested that the length of a color cycle varied according to the location of a hue on the color spectrum; that certain staple colors have a longer life cycle than high style colors; and that some colors, due to limited popularity or a tendency to be a staple color (Chambers, 1951), may not run in cycles at all.

The findings of this research supported assertations on the popularity of a given color and how that related to social and economic events of the times. The findings indicated that the decade of the 1950's and the late 1970's, early 1980's were the most stable times for hues, values and chromas. These periods appeared to be stable times for the social and economic atmosphere of the United States. Thus the colors shown in Vogue magazine may have reflected the social and economic stability or instability of the times.

In conclusion, the purposes of the study were accomplished through the development of graphical presentations of percentages of occurrence. The study provided quantitative data indicating that some colors followed obvious cyclic patterns. These colors included yellow, blue, purple blue, purple and black. The findings also indicated that the percentages of occurrence of some hues (red, blue and black), values and chromas could be related to social and economic events of the times.

Implications

Several notable observations are discussed as a result of the findings from this research. The graphed findings for the blue hue (Figure 9) and the neutral hues (Figure 13) followed distinctive patterns that might be possible bases for future research.

After examination of the data for the blue hue, the researcher suggested the possibility of a change that occurred between 1950 and 1983. In the early years of the 34 year time span, the blue hue appeared to move in a cyclic pattern. This pattern may be interpreted to mean that in the earlier years of this study, blue was a "high style" color, as was defined by Chambers (1951). She explained that a "high style" color was similar to "high fashion" apparel (Chambers, 1951). During the 34 years of the study, the findings indicated that the blue hue evolved into a "staple" color as was defined by Ingersoll (1965).

The implication from this observation might be to further subdivide colors on the basis of staple or high style colors, and then observe colors within each group and between the groups for possible similarities. These might include the cycle length, the cycle amplitude, warm versus cool colors, and the location of the color on the color wheel.

A second notable observation related to the neutrals, black, white and gray (Figure 13). According to David Nemerov (Chambers, 1951), the amount of black apparel being sold indicated the mood of the people. He explained that increased sales of dark-colored apparel indicated a somber mood was over the people. This may have been a

possibility prior to the 1950's, but the findings from this study did not support his theory. Rather, the Vogue magazine featured a gradual increase in the percentage of black apparel over the 34 years of the study. The researcher's interpretation of the findings from this study was that the amount of black and white garments being shown were no longer indicators of the mood of the people, but had become "high style" colors as was defined by Chambers (1951).

These findings could be used in a classroom setting, as aids for discussion in historical costume courses or courses in social and economic aspects of clothing. Each decade could be analyzed for social or economic events and discussions could be developed as to why the Vogue magazine was featuring particular colors during that decade.

Another possibility for classroom situations would be a discussion on popular clothing styles and colors, exploring the possibility of the popularity of certain colors in relation to a particular clothing fashion or fad.

Recommendations

On the basis of the current research findings, some recommendations were proposed by the researcher:

1. Test the degree of validity of this research method by collecting data from sources other than the Vogue magazine and comparing the findings.
2. Further subdivide the collected data to develop more specific hue, value or chroma categories.

3. Use alternative methods of combining the data to investigate trends or to make comparisons.
4. Expand the number of years to be studied.
5. Expand the number of sources used to include other women's fashion magazines, such as Harper's Bazaar or Madamoiselle, as well as Vogue magazine.
6. Compare color patterns in home furnishings to those in fashion apparel.

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APPENDIXES

APPENDIX A

CORRESPONDENCE WITH

VOGUE MAGAZINE

VOGUE

The Condé Nast Publications Inc. 350 Madison Avenue, New York, N.Y. 10017 (212) 880-8800

April 20, 1983

Dear Miss Stall-Meadows,

Your letter to our Editor has been forwarded to this office for reply.

In the 1950's color printing was relatively more expensive to produce than it is now, but the chief reason that one does not see as much of it during this period is that black and white photography was more fashionable to use.

The January and February issues are good indicators of spring colors, and August and September are good for fall.

Good luck with your thesis!

Sincerely,

Shirley Connell
Vogue Information

Celia Stall-Meadows
229 North Husband, #112
Stillwater, Oklahoma 74074

SC/st

APPENDIX B

TOTAL NUMBER OF COLORS COUNTED AND FREQUENCIES FOR EACH YEAR, 1950-1983

TABLE I

YEARLY FREQUENCY OF HUES AND NEUTRALS FROM THE VOGUE MAGAZINE 1950-1983

Color Classifications

Year	RE	YR	YE	GY	GR	BG	BL	PB	PU	RP	NT	Yearly Total
1950	16	10	5	1	2	3	2	13	5	3	13	73
1951	28	34	28	5	6	5	9	19	6	5	28	173
1952	39	54	13	3	7	5	6	26	7	8	39	207
1953	34	38	19	1	2	3	8	16	0	5	24	150
1954	21	27	17	2	1	3	9	20	2	6	23	131
1955	33	26	12	8	3	8	11	17	5	5	13	141
1956	26	34	4	3	4	6	14	19	0	5	25	140
1957	17	15	5	0	4	7	9	21	2	5	17	102
1958	37	33	14	9	5	1	18	15	0	6	20	158
1959	39	42	23	9	8	2	11	12	2	12	20	180
1960	23	42	21	6	8	3	7	16	11	6	29	173
1961	37	40	23	9	4	1	7	12	11	23	36	203
1962	44	33	24	5	2	5	10	13	1	6	45	188
1963	16	30	21	10	15	4	13	7	2	11	21	150
1964	24	34	25	7	7	1	13	5	1	7	28	152
1965	11	33	24	6	4	2	15	9	1	8	33	146
1966	32	67	40	8	2	2	5	7	3	16	48	230
1967	18	16	24	10	6	1	7	11	6	7	34	140
1968	28	27	20	4	3	2	5	11	10	10	42	162
1969	45	40	29	8	8	1	22	16	4	16	59	248
1970	38	25	17	7	4	5	14	15	8	15	57	205
1971	33	9	12	1	4	1	12	10	4	17	47	150
1972	30	25	32	8	4	2	8	19	4	9	41	182
1973	16	15	10	5	6	0	5	6	3	8	25	99
1974	18	14	17	3	1	0	9	3	1	8	22	96
1975	15	28	15	7	1	0	3	3	4	8	20	104
1976	34	35	18	7	8	1	10	21	8	9	49	200
1977	28	15	11	4	5	2	4	14	4	7	28	122
1978	22	59	20	5	2	2	10	17	6	16	37	196
1979	34	29	11	4	4	3	10	9	7	22	44	177
1980	56	36	28	2	7	4	10	39	16	29	75	294
1981	80	57	19	6	11	3	14	48	24	23	105	400
1982	76	55	30	4	3	6	26	70	23	35	139	467
1983	98	54	28	3	5	8	21	75	25	46	240	603
Total	1146	1131	659	180	166	102	357	636	216	433	1532	6550

TABLE II

YEARLY FREQUENCY OF VALUES FOR FEBRUARY ISSUES (SPRING SEASON), FROM THE VOGUE MAGAZINE, 1950-1983

	Values											
Year	0	1	2	3	4	5	6	7	8	9	10	Yearly Total
1951	0	4	1	4	13	9	10	9	13	6	3	72
1952	1	0	2	3	4	9	6	9	8	1	5	48
1953	1	0	4	4	3	5	6	7	13	3	3	49
1954	2	0	2	6	1	7	5	6	16	9	4	58
1955	0	0	2	2	2	8	3	6	5	6	4	38
1956	6	0	3	4	5	9	7	9	9	4	7	63
1957	0	0	3	8	2	7	6	8	6	2	10	52
1958	2	0	2	2	8	14	5	3	2	0	10	48
1959	0	0	2	1	5	14	10	3	8	2	5	50
1960	2	0	2	2	6	9	10	12	13	3	8	67
1961	2	0	0	2	14	18	9	4	11	4	5	69
1962	1	0	4	4	13	10	11	4	8	4	8	67
1963	3	0	2	5	6	22	13	10	2	5	6	74
1964	4	0	2	3	10	13	11	13	11	0	8	75
1965	9	0	1	3	2	7	4	5	3	2	12	48
1966	7	0	2	1	3	8	16	7	9	1	9	63
1967	8	0	2	3	9	16	9	10	6	0	13	76
1968	2	0	2	3	8	7	7	7	5	1	8	50
1969	7	0	6	9	22	15	17	14	7	2	24	123
1970	7	0	1	5	9	12	13	7	10	1	18	83
1971	5	2	1	3	7	15	3	7	2	0	15	61
1972	5	0	5	7	16	8	6	9	8	4	13	81
1973	2	0	1	2	10	8	4	4	4	2	12	49
1974	3	0	0	0	0	15	8	7	9	1	11	54
1975	1	0	3	2	7	10	11	13	3	2	11	63
1976	7	0	2	5	11	13	17	19	17	3	17	111
1977	6	0	3	3	11	11	5	8	2	0	14	63
1978	6	0	2	4	15	28	21	21	11	4	21	133
1979	8	0	2	6	8	8	17	10	5	1	13	78
1980	16	0	4	12	21	28	21	18	9	8	26	163
1981	12	2	3	9	25	20	21	14	12	6	31	155
1982	21	0	6	11	34	32	29	28	28	10	53	252
1983	47	0	5	19	39	37	28	27	17	3	57	279
Total	203	8	82	157	349	453	369	338	292	100	464	2815

TABLE III

YEARLY FREQUENCY OF VALUES FOR AUGUST ISSUES (FALL SEASON), FROM THE VOGUE MAGAZINE, 1950-1983

	Values											
Year	0	1	2	3	4	5	6	7	8	9	10	Yearly Total
1950	0	3	3	22	14	11	7	2	8	2	1	73
1951	2	0	2	21	21	15	8	14	9	5	6	101
1952	12	2	6	42	28	28	11	7	12	5	6	159
1953	7	0	5	15	20	14	9	9	3	15	3	100
1954	4	0	3	6	12	14	9	8	4	8	5	73
1955	4	0	10	23	27	19	6	7	3	2	2	103
1956	5	0	5	17	15	21	8	1	3	2	0	77
1957	2	0	4	4	11	19	4	4	1	0	1	50
1958	6	0	4	8	29	26	15	10	6	4	1	109
1959	3	0	7	19	30	30	18	16	5	1	1	130
1960	7	0	7	13	33	16	14	5	5	1	5	106
1961	10	0	8	16	34	22	12	11	8	4	9	134
1962	8	0	12	15	22	16	13	7	12	4	12	121
1963	5	0	5	12	15	9	12	7	6	1	4	76
1964	9	0	0	8	10	11	6	7	15	8	3	77
1965	3	0	3	3	17	14	17	20	15	0	6	98
1966	18	0	7	9	25	32	16	24	18	10	8	167
1967	3	0	2	4	11	11	7	10	6	2	8	64
1968	14	0	3	9	21	21	10	9	6	3	16	112
1969	15	0	2	10	22	12	19	21	13	3	8	125
1970	8	0	5	9	14	26	14	16	5	2	23	122
1971	15	0	2	8	8	22	6	6	9	2	11	89
1972	10	0	2	9	4	15	16	14	16	8	7	101
1973	7	0	1	7	5	5	6	8	6	1	4	50
1974	2	0	1	3	2	7	8	8	4	2	5	42
1975	4	0	1	1	9	6	6	4	6	0	4	41
1976	6	0	3	9	12	17	7	9	6	3	17	89
1977	3	0	4	9	14	11	3	5	5	2	3	59
1978	2	0	2	3	10	11	10	9	7	2	7	63
1979	9	0	6	16	17	15	9	7	3	4	13	99
1980	10	0	1	11	19	30	14	12	9	11	14	131
1981	28	1	11	37	36	49	24	14	13	5	27	245
1982	33	1	18	33	37	26	15	17	7	4	24	215
1983	61	0	25	30	54	39	18	20	11	7	59	324
Total	335	7	180	461	658	640	377	348	265	133	322	3726

TABLE IV

YEARLY FREQUENCY OF CHROMAS FROM THE VOGUE MAGAZINE, 1950-1983

	Chromas															
Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	16	Yearly Totals
1950	13	2	18	0	14	0	9	0	6	0	7	0	4	0	0	0	73
1951	28	11	35	5	37	0	26	0	10	0	9	0	9	0	3	0	173
1952	39	20	51	6	34	0	20	0	12	0	11	0	11	0	3	0	207
1953	25	18	37	9	22	0	10	0	6	0	11	0	5	0	7	0	150
1954	25	12	29	4	26	1	13	0	7	0	5	1	3	0	5	0	131
1955	13	11	36	5	37	1	17	0	6	0	5	0	2	0	8	0	141
1956	25	10	28	3	24	0	17	0	18	0	7	0	5	0	3	0	140
1957	17	6	22	5	19	0	7	0	11	0	8	0	2	0	5	0	102
1958	20	6	19	3	19	1	35	1	19	0	13	0	19	0	3	0	158
1959	20	16	31	12	31	2	24	0	11	0	18	0	12	0	3	0	180
1960	30	15	30	13	37	0	21	0	7	0	10	0	7	0	3	0	173
1961	36	7	26	14	33	2	32	0	22	0	12	0	14	0	5	0	203
1962	45	19	28	13	16	1	25	1	21	0	10	0	7	0	2	0	188
1963	21	21	9	23	6	1	34	1	14	0	8	0	3	0	0	0	150
1964	28	10	29	7	35	1	20	0	11	0	4	0	7	0	0	0	152
1965	33	19	26	9	21	0	16	0	15	0	3	0	4	0	0	0	146
1966	48	24	30	23	20	4	26	2	26	0	16	0	4	0	7	0	230
1967	34	2	10	2	27	3	22	0	18	0	15	0	7	0	0	0	140
1968	42	6	17	6	17	3	20	0	26	0	19	0	6	0	0	0	162
1969	59	19	32	18	32	3	22	1	28	0	20	0	13	0	1	0	248
1970	57	14	19	9	27	6	17	2	19	1	19	1	11	0	3	0	205
1971	47	7	10	4	16	6	19	4	14	1	7	3	11	0	1	0	150
1972	41	24	24	16	30	4	14	0	14	2	7	0	6	0	0	0	182
1973	25	5	9	7	21	3	9	1	7	1	8	0	2	0	1	0	994
1974	22	11	7	11	14	5	11	0	4	0	6	0	4	0	1	0	944
1975	20	9	20	17	17	2	8	0	4	1	3	0	3	0	0	0	104
1976	49	29	28	12	31	9	14	1	11	0	10	0	5	0	1	0	200
1977	28	7	17	6	18	2	13	1	11	1	7	2	5	0	4	0	122
1978	37	23	44	24	24	6	17	6	6	0	6	0	2	0	1	0	196
1979	44	13	32	14	16	9	15	2	13	3	8	1	5	0	2	0	177
1980	75	32	41	23	34	8	28	9	18	5	17	1	7	0	4	0	295
1981	105	41	62	40	39	13	30	9	24	1	24	0	9	0	3	0	400
1982	139	50	57	31	52	19	33	9	25	6	34	1	8	0	3	0	467
1983	240	54	39	27	46	22	46	8	34	6	40	4	21	1	14	1	603
Total	1530	561	966	404	916	137	690	58	498	28	407	14	243	1	96	1	6550

VITA

Celia Stall-Meadows

Candidate for the Degree of

Master of Science

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Biographical:

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Professional Experience: Graduate teaching assistant and historic costume collection museum curator, Oklahoma State University, School of Home Economics, Department of Clothing, Textiles and Merchandising, August 1982 to May 1984; bookkeeper/office manager, Computer Development Specialists, July 1981 to December 1983; salesperson, J.C. Penney, November 1980 to June 1981; student work experience, Vandevers Department Store, summer 1980; salesperson, Will Rogers Fabric Store, February 1976 to May 1977, also Summer 1979.

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